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Volume 27, Number 1
Cover Design, UCF Arena: Jagdish J. Chavda
Photos by: Ricardo Aguilar

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE OF FLORIDA BOARD OF EDUCATION</td>
<td>6</td>
</tr>
<tr>
<td>STATE OF FLORIDA BOARD OF REGENTS</td>
<td>6</td>
</tr>
<tr>
<td>PRINCIPAL OFFICERS OF ADMINISTRATION</td>
<td>6</td>
</tr>
<tr>
<td>ADMINISTRATION</td>
<td>6</td>
</tr>
<tr>
<td>COLLEGES AND DEPARTMENTS</td>
<td>8</td>
</tr>
<tr>
<td>ACADEMIC CALENDAR</td>
<td>10</td>
</tr>
<tr>
<td>CAMPUS SERVICES DIRECTORY</td>
<td>15</td>
</tr>
<tr>
<td>UNIVERSITY OF CENTRAL FLORIDA</td>
<td></td>
</tr>
<tr>
<td>MISSION STATEMENT</td>
<td>17</td>
</tr>
<tr>
<td>ACCREDITATION</td>
<td>17</td>
</tr>
<tr>
<td>EAST CENTRAL FLORIDA</td>
<td>19</td>
</tr>
<tr>
<td>THE ORLANDO CAMPUS</td>
<td>19</td>
</tr>
<tr>
<td>AREA CAMPUSES</td>
<td>19</td>
</tr>
<tr>
<td>ENDOWED CHAIRS</td>
<td>24</td>
</tr>
<tr>
<td>INTERNATIONAL STUDIES AND PROGRAMS</td>
<td>24</td>
</tr>
<tr>
<td>STUDY ABROAD PROGRAMS</td>
<td>25</td>
</tr>
<tr>
<td>LINKAGE INSTITUTES</td>
<td>25</td>
</tr>
<tr>
<td>AREA STUDIES PROGRAMS</td>
<td>25</td>
</tr>
<tr>
<td>UNIVERSITY LIBRARIES</td>
<td>27</td>
</tr>
<tr>
<td>UCF ALUMNI ASSOCIATION</td>
<td>27</td>
</tr>
<tr>
<td>UNIVERSITY OF CENTRAL FLORIDA FOUNDATION, INC.</td>
<td>28</td>
</tr>
<tr>
<td>INSTRUCTIONAL RESOURCES</td>
<td>28</td>
</tr>
<tr>
<td>UNIVERSITY BOOKSTORE</td>
<td>28</td>
</tr>
<tr>
<td>INTERCOLLEGIATE ATHLETICS</td>
<td>28</td>
</tr>
<tr>
<td>ORLANDO — UCF SHAKESPEARE FESTIVAL</td>
<td>28</td>
</tr>
<tr>
<td>CENTRAL FLORIDA RESEARCH PARK</td>
<td>29</td>
</tr>
<tr>
<td>TRANSIT SERVICES</td>
<td>30</td>
</tr>
<tr>
<td>STUDENT AFFAIRS</td>
<td></td>
</tr>
<tr>
<td>OFFICE OF DEAN OF STUDENTS</td>
<td>31</td>
</tr>
<tr>
<td>CONFIDENTIALITY OF RECORDS</td>
<td>31</td>
</tr>
<tr>
<td>STUDENT GOVERNMENT</td>
<td>31</td>
</tr>
<tr>
<td>SERVICES</td>
<td>32</td>
</tr>
<tr>
<td>ADMISSION SERVICES</td>
<td></td>
</tr>
<tr>
<td>APPLICATION FOR ADMISSION</td>
<td>38</td>
</tr>
<tr>
<td>CAMPUS TOURS</td>
<td>38</td>
</tr>
<tr>
<td>REACTIVATION</td>
<td>38</td>
</tr>
<tr>
<td>READMISSION</td>
<td>39</td>
</tr>
<tr>
<td>ADMISSIONS AND STANDARDS COMMITTEE</td>
<td>39</td>
</tr>
<tr>
<td>LIMITED ACCESS PROGRAMS</td>
<td>39</td>
</tr>
<tr>
<td>RECORDS</td>
<td>40</td>
</tr>
<tr>
<td>FRESHMAN APPLICANTS</td>
<td>40</td>
</tr>
<tr>
<td>TRANSFER APPLICANTS</td>
<td>42</td>
</tr>
<tr>
<td>TRANSFER CREDIT</td>
<td>44</td>
</tr>
<tr>
<td>ACCREDITED INSTITUTIONS</td>
<td>45</td>
</tr>
<tr>
<td>COLLEGE PREPARATORY INSTRUCTION</td>
<td>45</td>
</tr>
<tr>
<td>INTERNATIONAL STUDENT ADMISSION</td>
<td>46</td>
</tr>
<tr>
<td>INTERNATIONAL STUDENT INSURANCE</td>
<td>46</td>
</tr>
<tr>
<td>TEMPORARY STUDENTS</td>
<td>46</td>
</tr>
<tr>
<td>TRANSIENT STUDENTS</td>
<td>47</td>
</tr>
<tr>
<td>AUDIT STUDENTS</td>
<td>47</td>
</tr>
<tr>
<td>NON DEGREE-SEEKING STUDENTS</td>
<td>47</td>
</tr>
<tr>
<td>TRANSCRIPT REQUESTS</td>
<td>47</td>
</tr>
<tr>
<td>SECOND BACHELOR'S DEGREE</td>
<td>48</td>
</tr>
<tr>
<td>SENIOR CITIZENS</td>
<td>48</td>
</tr>
</tbody>
</table>
TUITION AND FEES
SCHEDULE OF FEES ....................................................... 49
APPEALS ........................................................................ 50
CHECK CASHING ............................................................ 50
PAST-DUE ACCOUNTS ......................................................... 50
PAYMENT PROCEDURES .................................................. 50
REFUND OF FEES ............................................................. 51
TUITION FEE WAIVERS FOR STATE OF FLORIDA EMPLOYEES 51
TUITION FEE WAIVERS FOR SENIOR CITIZENS .................... 51
STATE TUITION EXEMPT PROGRAM (STEP) ......................... 52
FLORIDA PREPAID COLLEGE PLAN .................................. 52
FLORIDA RESIDENCY FOR TUITION PURPOSES .............. 52

STUDENT FINANCIAL ASSISTANCE
DETERMINING ELIGIBILITY ............................................. 55
UCF APPLICATION DEADLINES ......................................... 55
APPLICATION PROCEDURES ........................................... 56
TRANSFER STUDENTS ....................................................... 57
DUAL ENROLLMENT .......................................................... 57
INDEPENDENT STUDENT STATUS ..................................... 57
UCF FINANCIAL ASSISTANCE PROGRAMS ......................... 57
LOANS ............................................................................ 58
EMPLOYMENT ................................................................. 59
SCHOOL COSTS ................................................................. 59
DEFERRALS OF TUITION AND FEES ................................. 59
FUND DISBURSEMENT ....................................................... 60
REFUNDS AND REPAYMENT POLICIES .............................. 61
CONDITIONS AND REQUIREMENTS FOR RECEIVING ASSISTANCE 62
SATISFACTORY ACADEMIC PROGRESS POLICY ............... 62
FINANCIAL ASSISTANCE FOR GRADUATE STUDENTS .......... 64
STUDENT RIGHTS AND RESPONSIBILITIES ....................... 64

ACADEMIC POLICIES AND PROCEDURES
ACADEMIC ETHICS .......................................................... 65
STUDENT CLASSIFICATIONS ............................................. 65
SEMESTER HOURS EXPLAINED ......................................... 66
MAXIMUM COURSE LOAD ................................................ 66
GRADING SYSTEM ........................................................... 66
ACADEMIC STANDING ....................................................... 67
EARNING CREDIT WHILE DISQUALIFIED OR EXCLUDED .... 67
INCOMPLETE GRADE ......................................................... 68
SCHEDULE CHANGES — ADD/DROP POLICY ..................... 68
WITHDRAWAL POLICY ....................................................... 68
TRANSIENT ENROLLMENT AT OTHER INSTITUTIONS ........ 69
GRADE FORGIVENESS ....................................................... 69
ACADEMIC HONORS ........................................................ 70
TIME-SHORTENED DEGREE OPPORTUNITIES ..................... 70

UNDERGRADUATE DEGREE REQUIREMENTS
REQUIREMENTS FOR GRADUATION .................................. 76
CHOICE OF CATALOG AND CONTINUOUS ENROLLMENT ........ 76
GENERAL EDUCATION PROGRAM ....................................... 76
FOREIGN LANGUAGE PROFICIENCY REQUIREMENT ............. 78
STATE UNIVERSITY SYSTEM FOREIGN LANGUAGE PROFICIENCY REQUIREMENT .......... 79
THE GORDON RULE ........................................................ 79
COLLEGE LEVEL ACADEMIC SKILLS TEST ......................... 80
CORRESPONDENCE COURSES ........................................ 81
SUMMER ATTENDANCE REQUIREMENT ............................... 81
ADMISSION TO THE UPPER DIVISION ................................ 81
STEPS IN THE GRADUATION PROCESS ............................ 81
TEACHER CERTIFICATION REQUIREMENTS ..................... 82
ENROLLMENT AND ACADEMIC SERVICES
ACADEMIC ADVISING SERVICES ........................................ 83
COMMUNITY COLLEGE RELATIONS .................................. 83
MINORITY STUDENT SERVICES .......................................... 83
REGISTRAR'S OFFICE ....................................................... 84
STUDENT ACADEMIC RESOURCE CENTER (SARC) .................. 83

ACADEMIC PROGRAMS
UNDERGRADUATE DEGREES ............................................ 85
ACADEMIC MINORS ......................................................... 87
PRE-HEALTH PROFESSIONS ADVISEMENT .............................. 88
COOPERATIVE EDUCATION .............................................. 91
UNIVERSITY HONORS PROGRAM ....................................... 91

COLLEGE OF ARTS AND SCIENCES .................................... 95
COLLEGE OF BUSINESS ADMINISTRATION ......................... 153
COLLEGE OF EDUCATION .................................................. 164
COLLEGE OF ENGINEERING .............................................. 182
AEROSPACE STUDIES (AIR FORCE-ROTC) ......................... 197
ARMY ROTC-MILITARY SCIENCE .................................... 199

COLLEGE OF HEALTH AND PUBLIC AFFAIRS ....................... 202
DIVISION OF CONTINUING EDUCATION .............................. 222
INSTITUTES AND CENTERS FOR RESEARCH ......................... 225

COURSE DESCRIPTIONS .................................................. 231

FACULTY ............................................................................. 355
FACULTY AND ADMINISTRATION EMERITI ......................... 380
HONORARY DEGREES AWARDED ....................................... 382
COURTESY FACULTY AND RESEARCH APPOINTMENTS ............ 382
INDEX ................................................................................. 388

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From Orlando International Airport: (20 Miles)
Go east on BeeLine Expressway (528) to 417 North. Take 417 North (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

From Daytona on I-4:
Exit 49 onto Route 434. Go through Longwood and Oviedo on 434 to UCF.

From Tampa on I-4:
Exit 28 onto BeeLine Expressway East (528) Toll Road. Go past Orlando International Airport to 417 North. Take 417 North (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

From South on Florida Turnpike:
Exit 254 (Orlando South — 441). Take first right onto BeeLine Expressway East (528) Toll Road. Go east past Orlando International Airport to 417 North. Take 417 North (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

From North on Florida Turnpike:
Exit 265 (Holland East-West) onto East-West Expressway East (408) (Toll Road). Go east through Orlando to merge with 417 North Toll Road to University Blvd. Exit east onto University Blvd. to UCF.

From Titusville (East Coast):
Hwy. 50 west past East-West overpass to 434. Turn right to UCF (2 miles).

From Melbourne:
I-95 to 520 to Hwy. 50 west to right on 434 or I-95 to 528 BeeLine west (toll) to 417 north to University Blvd. Exit east to UCF.

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<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
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<td>TBA</td>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
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</tr>
</tbody>
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**College of Engineering**

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
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<td>Martin P. Wanielista</td>
</tr>
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<td>Associate Dean for Graduate Affairs and Research</td>
<td>Stephen L. Rice</td>
</tr>
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</tr>
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<td>Director of Undergraduate Affairs</td>
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</tr>
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</tr>
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<td>Chair, Industrial Engineering and Management Systems</td>
<td>William W. Swart</td>
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<td>James D. McBrayer</td>
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<tr>
<td>Chair, Aerospace Studies (AFROTC)</td>
<td>Lt Col Dean H. Haylett</td>
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<tr>
<td>Chair, Army ROTC</td>
<td>Lt Col. John T. Sanders</td>
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**College of Health and Public Affairs**

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Dean</td>
<td>Belinda R. McCarthy</td>
</tr>
<tr>
<td>Associate Dean</td>
<td>Jean C. Kijek</td>
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<tr>
<td>Associate Dean</td>
<td>Richard E. Talbott</td>
</tr>
<tr>
<td>Interim Chair, Communicative Disorders</td>
<td>Thomas A. Mullin</td>
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<tr>
<td>Chair, Criminal Justice and Legal Studies</td>
<td>Bernard J. McCarthy</td>
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<tr>
<td>Chair, Health Sciences</td>
<td>Michael J. Sweeney</td>
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<tr>
<td>Chair, Molecular Biology and Microbiology</td>
<td>Robert N. Gennaro</td>
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<td>Carol Davis</td>
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<td>Chair, Physical Therapy</td>
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<td>Interim Chair, Public Administration</td>
<td>Wendell C. Lawther</td>
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<tr>
<td>Chair, Social Work</td>
<td>Ira C. Colby</td>
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<tr>
<td>Advisement Coordinator</td>
<td>Debbie K. Phillis</td>
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</tbody>
</table>
ACADEMIC CALENDAR 1994-95

**FALL SEMESTER 1994**

- **March 4**: International Student Application Deadline
- **June 4**: CLAST, GRE
- **June 18**: GMAT
- **July 15**: Application deadline for all applicants, transfers, and readmissions (except International Applicants)
- **August 6**: FTCE, TOEFL
- **August 16 (1 p.m.)**: Residence Halls open for Fall Semester
- **August 17 and 22**: Orientation and advisement
- **August 18-19**: Registration by appointment
- **August 20**: MCAT
- **August 23**: Classes begin
- **August 24-25**: Add/Drop
- **August 26**: Last day to submit Grade Forgiveness Request
- **August 26**: Last day of late registration — $50 late fee
- **August 26**: Last day for refund/fees due
- **August 26**: Graduation application deadline
- **August 26 (until noon)**: Drop only
- **August 26**: Senior Citizen Audit Registration
- **September 5**: Labor Day Holiday (University-wide)
- **October 1**: CLAST, LSAT
- **October 8**: GRE
- **October 14**: Withdrawal deadline
- **October 15**: GMAT
- **October 22**: Homecoming
- **October 22**: FTCE, TOEFL
- **November 11**: Veterans’ Day Holiday (University-wide)
- **November 18**: Last day to remove an “I” earned last semester
- **November 19**: TOEFL
- **November 24-25**: Thanksgiving Holidays (University-wide)
- **December 3**: LSAT
- **December 7**: Classes end for Fall Semester
- **December 8**: Prep day for final exams
- **December 9-16**: Final Examination period
- **December 10**: GRE
- **December 17**: Commencement
- **December 18 (12 noon)**: Residence Halls close
- **December 20 (12 noon)**: Grades due in Registrar’s Office

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from Enrollment and Academic Services, AD 210.

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10
**ACADEMIC CALENDAR 1994-95**

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>August 31</td>
<td>International Student Application Deadline</td>
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<tr>
<td>December 15</td>
<td>Application deadline for all applicants, transfers, and readmissions (except International Applicants)</td>
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<tr>
<td>January 1 (1 p.m.)</td>
<td>Residence Halls open</td>
</tr>
<tr>
<td>January 2</td>
<td>Orientation and advisement</td>
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<tr>
<td>January 3-4</td>
<td>Registration by appointment</td>
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<tr>
<td>January 5</td>
<td><strong>Classes begin</strong></td>
</tr>
<tr>
<td>January 10-11</td>
<td>Add/Drop</td>
</tr>
<tr>
<td>January 11</td>
<td>Last day to adjust class schedule</td>
</tr>
<tr>
<td>January 11</td>
<td>Last day of late registration — $50 late fee</td>
</tr>
<tr>
<td>January 11</td>
<td>Last day for refund/fees due</td>
</tr>
<tr>
<td>January 11</td>
<td>Last day to submit Grade Forgiveness Report</td>
</tr>
<tr>
<td>January 11</td>
<td>Graduation application deadline</td>
</tr>
<tr>
<td>January 12</td>
<td>Senior Citizen Audit Registration</td>
</tr>
<tr>
<td>January 14</td>
<td>TOEFL</td>
</tr>
<tr>
<td>January 16</td>
<td>Martin Luther King Day. (University Holiday)</td>
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<tr>
<td>January 21</td>
<td>FTCE, GMAT</td>
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<tr>
<td>February 5</td>
<td>GRE</td>
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<td>February 11</td>
<td>LSAT, TOEFL</td>
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<tr>
<td>February 18</td>
<td>CLAST</td>
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<tr>
<td>March 3</td>
<td>Withdrawal deadline</td>
</tr>
<tr>
<td>March 13-18</td>
<td><strong>Spring Holidays!</strong></td>
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<tr>
<td>March 18</td>
<td>GMAT</td>
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<tr>
<td>April 5</td>
<td>Founders’ Day Honors Convocation (Classes cancelled 10 am-noon)</td>
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<tr>
<td>April 7</td>
<td>Last day to remove an “I” earned last semester</td>
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<td>April 8</td>
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<td>FTCE, MCAT, TOEFL</td>
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<td>April 25</td>
<td>Classes end for Spring Semester</td>
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<tr>
<td>April 26</td>
<td>Prep day for final exams</td>
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<td>April 27-May 4</td>
<td><strong>Final Examination period</strong></td>
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<tr>
<td>May 6</td>
<td>Commencement</td>
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<tr>
<td>May 7 (12 noon)</td>
<td>Residence Halls close</td>
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<tr>
<td>May 8 (12 noon)</td>
<td>Grades due in Registrar’s Office</td>
</tr>
<tr>
<td>May 13</td>
<td>TOEFL</td>
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</table>

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from Enrollment and Academic Services, AD 210.
**ACADEMIC CALENDAR 1994-95**

**SUMMER "C" TERM 1995**

(See also Summer "A" and "B")

| January 27 | International Student Application Deadline |
| April 15 | Application deadline for all applicants, transfers, and readmissions (except International Applicants) |
| May 7 (3 p.m.) | Residence Halls open for Summer Semester |
| May 8 | Orientation and advisement |
| May 9 | Registration by appointment |
| May 11 | Classes begin |
| May 12 | Add/Drop |
| May 12 | Last day to adjust class schedule |
| May 12 | Last day to submit Grade Forgiveness Request |
| May 12 | Last day of late registration — $50 late fee |
| May 12 | Last day for refund/fees due |
| May 12 | Graduation application deadline |
| May 13 | TOEFL |
| May 15 | Senior Citizen Audit Registration |
| May 29 | Memorial Day Holiday (University-wide) |
| June 3 | CLAST, GRE |
| June 16 | Withdrawal deadline |
| June 17 | GMAT |
| July 4 | Independence Day Holiday (University-wide) |
| July 7 | Last day to remove an "I" earned last semester |
| August TBA |盯CAT |
| August 4 | Classes end |
| August 5 | FTCE |
| August 5 | Commencement |
| August 6 (12 noon) | Residence halls close |
| August 8 (12 noon) | Grades due in Registrar’s Office |

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from Enrollment and Academic Services, AD 210.
## ACADEMIC CALENDAR 1994-95

### SUMMER "A" TERM 1995

<table>
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<th>Event</th>
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<tr>
<td>International Student Application Deadline</td>
<td>January 27</td>
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<tr>
<td>Application deadline for all applicants, transfers, and readmissions (except International Applicants)</td>
<td>April 15</td>
</tr>
<tr>
<td>Residence Halls open for Summer &quot;A&quot; term</td>
<td>May 7 (3 p.m.)</td>
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<tr>
<td>Orientation and advisement</td>
<td>May 8</td>
</tr>
<tr>
<td>Registration by appointment</td>
<td>May 11</td>
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<tr>
<td>Classes begin for Summer &quot;A&quot; Term</td>
<td>May 12</td>
</tr>
<tr>
<td>Add/Drop</td>
<td>May 12</td>
</tr>
<tr>
<td>Last day to adjust class schedule</td>
<td>May 12</td>
</tr>
<tr>
<td>Last day to submit Grade Forgiveness Request</td>
<td>May 12</td>
</tr>
<tr>
<td>Last day for refund</td>
<td>May 12</td>
</tr>
<tr>
<td>Last day for late registration — $50 late fee</td>
<td>May 12</td>
</tr>
<tr>
<td>Graduation application deadline</td>
<td>May 13</td>
</tr>
<tr>
<td>TOEFL</td>
<td>May 15</td>
</tr>
<tr>
<td>Senior Citizen Audit Registration</td>
<td>May 29</td>
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<tr>
<td>Memorial Day Holiday (University-wide)</td>
<td>June 2</td>
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<tr>
<td>Withdrawal deadline</td>
<td>June 3</td>
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<tr>
<td>CLAST, GRE</td>
<td>June 17</td>
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<tr>
<td>GMAT</td>
<td>June 22</td>
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<tr>
<td>Classes end for Summer &quot;A&quot; Term</td>
<td>June 23 (9 a.m.)</td>
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<tr>
<td>Residence Halls close</td>
<td>June 26 (12 noon)</td>
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<tr>
<td>Grades due in Registrar’s Office</td>
<td>August TBA</td>
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<tr>
<td>MCAT</td>
<td>August 5</td>
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<td>FTCE</td>
<td>August 5</td>
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<tr>
<td>Commencement</td>
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ACADEMIC CALENDAR 1994-95

SUMMER "B" TERM 1995

January 27
April 15
May 8
May 12
May 13
June 21 (1 p.m.)
June 22
June 23
June 26
June 27
June 27
June 27
June 27
June 27
June 27
June 28
July 4
July 14
August TBA
August 4
August 5
August 5
August 6 (12 noon)
August 8 (12 noon)

International Student Application Deadline
Application deadline for all applicants, transfers, and readmissions (except International Applicants)
Registration (see also June 23)
Add/Drop (see also June 27)
TOEFL
Residence Halls open
Orientation and advisement
Registration by appointment
Classes begin for Summer "B" Term
Add/Drop
Last day to adjust class schedule
Fees Due
Last day for refund/fees due
Last day to submit Grade Forgiveness Request ("B" term only)
Last day of late registration — $50 late fee
Senior Citizen Audit Registration
Independence Day Holiday (University-wide)
Withdrawal deadline
MCAT
Classes end for Summer "B" Term
Commencement
FTCE
Residence Halls close
Grades due in Registrar’s Office

If possible, examinations should not be scheduled on days or during the times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. The times and dates of major religious holidays are available from Enrollment and Academic Services, AD 210.
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<td>Admissions AD 1st Floor 3-3000</td>
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<td>ALUMNI RELATIONS</td>
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<td>Bookstore, Student Services 3-2665</td>
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<td>Bookstore, Student Services 3-2361</td>
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<td>Student Academic Resource Center, PC1-102 3-5130</td>
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<td>Academic Advisor (Degree Program Advisor) 3-2361</td>
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<td>Department Chair 3-3176</td>
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<td>Credit Union, Students Services 3-5812</td>
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<td>ACADEMIC ADMISSIONS</td>
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<td>TR 547 3-6116</td>
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<td>AD 120 3-3200</td>
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<td>Admissions AD 1st Floor 3-3000</td>
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<td>Student Affairs AD 282 3-2177</td>
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<td>DISABLED STUDENTS</td>
<td>Enrollment &amp; Academic Services, AD 210 3-2891</td>
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<td>Registrar/Records AD 1st Floor 3-3100</td>
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<td>GRADE FORGIVENESS</td>
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**CAMPUS SERVICES DIRECTORY**

**LOCATION**

**CAMPUS EXTENSION**

or (407) 823-
<table>
<thead>
<tr>
<th>OFFICE/SERVICE</th>
<th>LOCATION</th>
<th>CAMPUS EXTENSION</th>
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<td>Housing Office SC 137</td>
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<td>&quot;I.D.&quot; CARD INFORMATION</td>
<td>Business Services AD 374</td>
<td>3-2624</td>
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<td>International Student Services AD 123</td>
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<td>PC 542, #114</td>
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<td>Recreational Services RS 101</td>
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<td>LOST AND FOUND</td>
<td>Student Center</td>
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<td>Student Government Kiosk</td>
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<td>Environmental Hlth &amp; Safety PP102</td>
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<td>Financial Aid AD 120</td>
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<tr>
<td>SCHOLARSHIPS</td>
<td>AD 210</td>
<td>3-2691</td>
</tr>
<tr>
<td>SENIOR CITIZEN AUDIT FORMS</td>
<td>Registrar/Records AD 1st Floor or Enrollment Academic Services AD 210</td>
<td>3-2691</td>
</tr>
<tr>
<td>SORORITIES</td>
<td>Student Affairs AD 282</td>
<td>3-2177</td>
</tr>
<tr>
<td>STUDENT ACADEMIC RESOURCE CENTER (SARC)</td>
<td>PC1-102</td>
<td>3-5130</td>
</tr>
<tr>
<td>STUDENT CENTER ROOM RESERVATIONS</td>
<td>Student Center</td>
<td>3-2633</td>
</tr>
<tr>
<td>STUDENT EMPLOYMENT</td>
<td>Center Resource Center AD 124</td>
<td>3-2361</td>
</tr>
<tr>
<td>STUDENT GOVERNMENT</td>
<td>Financial Aid AD 120</td>
<td>3-2827</td>
</tr>
<tr>
<td>STUDENT GOVERNMENT</td>
<td>Student Center</td>
<td>3-2191</td>
</tr>
<tr>
<td>MAC LAB</td>
<td>Student Center 227</td>
<td>3-2831</td>
</tr>
<tr>
<td>SUMMER CREDIT WAIVER</td>
<td>AD 210</td>
<td>3-2691</td>
</tr>
<tr>
<td>TESTING: STANDARDIZED TESTS</td>
<td>Counseling &amp; Testing RS 203</td>
<td>3-2811</td>
</tr>
<tr>
<td>TICKETS: ATHLETIC</td>
<td>Athletic Ticket Office/Arena 120</td>
<td>3-1000</td>
</tr>
<tr>
<td>TICKETS: MOVIES AND ATTRACTIONS</td>
<td>Student Government Kiosk</td>
<td>3-2060</td>
</tr>
<tr>
<td>TRANSCRIPTS:</td>
<td>Registrar/Records AD 1st Floor</td>
<td>3-3100</td>
</tr>
<tr>
<td>ACADEMIC (official &amp; unofficial)</td>
<td>Financial Aid AD 120</td>
<td>3-3200</td>
</tr>
<tr>
<td>FINANCIAL AID</td>
<td>Admissions AD 1st Floor</td>
<td>3-3000</td>
</tr>
<tr>
<td>TRANSFER HOURS SENT TO UCF</td>
<td>Registrar/Records AD 1st Floor</td>
<td>3-3100</td>
</tr>
<tr>
<td>REQUESTS SENT FROM UCF</td>
<td>Registrar/Records AD 1st Floor</td>
<td>3-3100</td>
</tr>
<tr>
<td>TRANSIENT STUDENT FORMS APPLICATIONS:</td>
<td>Registrar/Records AD 1st Floor</td>
<td>3-3100</td>
</tr>
<tr>
<td>OUTGOING</td>
<td>Admissions AD 1st Floor</td>
<td>3-3000</td>
</tr>
<tr>
<td>INCOMING</td>
<td>PC1-102</td>
<td>3-5130</td>
</tr>
<tr>
<td>TUTORING/ACADEMIC SUPPORT</td>
<td>Veterans’ Affairs SC 132</td>
<td>3-2707</td>
</tr>
<tr>
<td>VETERAN’ BENEFITS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WITHDRAWAL FROM COURSES OR UNIVERSITY</td>
<td>Registrar/Records AD 1st Floor</td>
<td>3-3100</td>
</tr>
<tr>
<td>CAN'T FIND AN ANSWER?</td>
<td>Dean of Students AD 282</td>
<td>3-2851</td>
</tr>
</tbody>
</table>
UNIVERSITY OF CENTRAL FLORIDA

The University of Central Florida, a member institution of the State University System, was formerly Florida Technological University. The name was changed by action of the Florida Legislature on December 6, 1978.

MISSION STATEMENT

UCF is a growing metropolitan university with the responsibility to deliver a comprehensive program of teaching, research, and service. Its primary mission is to provide intellectual leadership through quality undergraduate and graduate programs.

UCF offers undergraduate education rooted in the arts and sciences, providing a broad liberal education while developing competence in fields of special interest. Unique aspects of UCF's approach are its commitment to educate students for a world in which cooperation is as important as competition; in which societal and environmental impacts of new developments are as important as their technical merits; and in which technology, the arts, sciences, humanities, and commerce work together to shape the future.

The complexity of modern society requires comprehensive graduate and professional programs. UCF provides advanced education that matches institutional strengths with evolving regional, state, national, and international needs. It supports these advanced programs by recruiting excellent students, faculty, and staff and by supplying the infrastructure that enables these programs to achieve national prominence.

Basic and applied research, as well as creative activity, are integral parts of a quality education. UCF faculty are scholar-teachers. As such, they create new knowledge, new points of view, and new means of expression in a broad range of academic, professional, and socially significant areas. Their creativity fosters innovation as they convey their results, methods, values, and expressions to students, colleagues, and the public.

Service to its community is an important extension of the teaching and research mission of the University. Public service is prominent at UCF, with the University developing partnerships with the community to enrich the educational, artistic, cultural, economic, and professional lives of those it serves in Central Florida and beyond.

Education is more than classroom experience. UCF students are involved in cooperative research and participate in artistic, social, cultural, political, and athletic activities. UCF provides academic diversity by bringing to its campus national and international leaders who expose students and the community to wide range of views and issues. UCF achieves cultural diversity by using its multi-campus facilities to serve a diverse population of traditional and non-traditional students from various races, cultures, and nationalities.

UCF is committed to the free expression of ideas, the equality of all people, and the dignity of the individual.

ACCREDITATION

The University of Central Florida is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools as a Level IV, general post-secondary institution. The following scientific, professional, and academic bodies also confer accreditation in the listed disciplines and groups of disciplines.
<table>
<thead>
<tr>
<th>COLLEGE/DISCIPLINE</th>
<th>ACCREDITING BODY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arts and Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>Computer Science Accreditation Commission (CSAC)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>American Chemical Society (ACS)</td>
</tr>
<tr>
<td>Music</td>
<td>National Association of Schools of Music (NASM)</td>
</tr>
<tr>
<td><strong>Business Administration</strong></td>
<td></td>
</tr>
<tr>
<td>(all disciplines)</td>
<td>American Assembly of Collegiate Schools of Business (AACSB)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>(all disciplines)</td>
<td>State Accreditation-Florida Department of Education National Council for Accreditation of Teacher Education (NCATE)</td>
</tr>
<tr>
<td><strong>School Psychology</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Engineering</strong></td>
<td></td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td></td>
</tr>
<tr>
<td>Computer Engineering</td>
<td></td>
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<tr>
<td>Environmental Engineering</td>
<td></td>
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<tr>
<td>Electrical Engineering</td>
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<tr>
<td>Industrial Engineering</td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Health and Public Affairs</strong></td>
<td></td>
</tr>
<tr>
<td>Cardiopulmonary Science</td>
<td>Joint Review Commission on Respiratory Therapy Education in Conjunction with CAAHEP of AMA</td>
</tr>
<tr>
<td><strong>Communicative Disorders</strong></td>
<td></td>
</tr>
<tr>
<td>(Speech Pathology/Audiology)</td>
<td>American Speech-Language-Hearing Association — Educational Standards Board (ASHA)</td>
</tr>
<tr>
<td><strong>Health Information Management</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Medical Sciences Laboratory</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Nursing</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Radiologic Technology</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Social Work</strong></td>
<td></td>
</tr>
</tbody>
</table>

UCF is listed in *Transfer Credit Practices on Designated Educational Institutions* with the highest level of credit acceptability. This handbook is published by the American Association of Collegiate Registrars and Admission Officers, and lists the acceptability of transfer credits based upon the reporting institutions in the states, commonwealths, territories, and selected international institutions.
EAST CENTRAL FLORIDA AREA

UCF is located in East Central Florida, a region with a population of about two million. Known principally for its tourist attractions, the area is one of the fastest growing regions in the nation. East Central Florida is noted for its many lakes. Atlantic beaches are an easy hour drive from the main campus. The area offers Walt Disney World and other attractions that draw more vacationers here than anywhere else. The area also offers Broadway productions, pop and classical music headliners, art festivals, a Shakespeare festival of UCF origin, the National Basketball Association’s Orlando Magic and restaurants of every type and price.

THE ORLANDO CAMPUS

The 1,445-acre campus is located in the Orlando suburbs, 13 miles northeast of downtown. Fifty-one permanent buildings — valued at more than $130 million — radiate outward from an academic core, where UCF’s colleges, classrooms and library are located. More than $22 million in construction, including a $14 million communications building, is planned over the next three years. New facilities recently completed or now under construction include a 700-bed residence hall, an $11 million student union and an $11 million building to house the Center for Research and Education in Optics and Lasers. UCF recreational facilities include lighted tennis and racquetball courts, an outdoor swimming pool, golf driving range, volleyball and basketball courts and ball fields.

UCF AREA CAMPUSES

In addition to the academic programs offered on the Orlando campus, the University of Central Florida offers a number of upper-division programs and graduate programs at Area Campuses in Cocoa and Daytona Beach. Times and dates for all courses are listed in the regularly published schedule of classes.

The College of Business Administration has a satellite office in Downtown Orlando to target working executives who are looking for new management or marketing skills.
UCF Brevard Area Campus
Clark Maxwell, Jr. Lifeline Learning Center
1519 Clearlake Road
Cocoa, FL 32922

Campus Director:
James A. Drake
(407) 632-0067 UCF Ext. 50-5567

Associate Director, Academic Affairs
James O. Hill
(407) 632-4129 UCF Ext. 50-5564

Director, Academic Services/Advising Coordinator
(Admissions, Registration, Records, Financial Aid, Student Services)
Doyce E. Walter
(407) 632-4127 UCF Ext. 50-5561

The University of Central Florida, Brevard Campus, is housed in the Clark Maxwell, Jr. Lifelong Learning Center on the Cocoa campus of Brevard Community College. The University offers junior, senior, and graduate-level courses and programs. Freshman and sophomore-level courses are provided by Brevard Community College. Students who have completed the Associate of Arts Degree are able to select from 17 baccalaureate programs offered by the University in Brevard. Newly admitted or currently enrolled UCF students may also register in selected upper division elective courses presented at UCF-Brevard. Graduate programs are offered in Business Administration, Communicative Disorders, Education, Engineering, and Public Administration.

The coordination between the University of Central Florida and Brevard Community College for the 2+2 baccalaureate degree has become a model for other institutions of higher education in the State of Florida.
College of Arts and Sciences (407) 631-5366
  Psychology
  Liberal Studies Program
  Social Sciences

College of Business (407) 632-0098
  Accounting (coursework only)
  General Business Administration

College of Education (407) 631-5339
  Elementary Education
  Exceptional Education
  Science Education — Biology (Secondary)
  Vocational Technical Education

College of Engineering (407) 631-5366
  Electrical Engineering Technology
    with concentrations in Electrical Systems and
    Information Systems
  Engineering Technology
    with concentration in Operations

College of Health and Public Affairs (407) 631-5440
  Communicative Disorders
  Criminal Justice
  Legal Studies
  Nursing
  Public Administration

GRADUATE PROGRAMS
  Masters of Business Administration (MBA)
  Masters of Communicative Disorders (MA)
  Masters of Education Leadership (MEd)
  Masters of Education Elementary Education (MEd)
  Masters in Public Administration (MPA)
  Engineering FEEDS/ITV Graduate Engineering (Courses on videotape)

For information concerning the campus contact the Admissions Office at the University of Central Florida-Brevard.
UCF at Daytona Beach
UCF/DBCC Higher Education Center
1200 International Speedway Blvd.
P.O. Box 2811
Daytona Beach, Florida 32120-2811
(904) 255-7423

Associate Vice President and
Campus Director
Sarah H. Pappas
(904) 255-7423 Ext. 4010

UCF/DBCC Higher Education Center
1200 International Speedway Blvd.
P.O. Box 2811
Daytona Beach, Florida 32120-2811
(904) 255-7423

Associate Campus Director
William J. Wetherell
(904) 255-7423 Ext. 4025

Director of Undergraduate Advising
Sylvester Covington
(904) 255-7423, Ext. 4017

The Daytona Beach Campus of the University of Central Florida is located in a new two
building Higher Education Center it shares with Daytona Beach Community College. The fac­
ulty and staff at the new facility have a strong commitment to serve the residents of Volusia
and Flagler counties. In Daytona Beach, UCF offers junior, senior, and graduate level courses
and programs. Freshman and sophomore level courses are provided by Daytona Beach
Community College. Together, the two institutions provide the “2+2” Baccalaureate Degree.
Additional courses and programs will be added as needs are identified.

Education programs at the branch campus are limited access programs. Acceptance to
the University and/or the college of education does not constitute admission to
UCF/Daytona’s education program. A separate application must be made directly to the
Daytona Campus program.

The branch campus offers a wide range of services, including admissions, registration,
financial aid, student clubs and organizations, career resources, veterans affairs, disability
services, and others.

At present, undergraduate and graduate-level degree programs are offered in the follow­ing
academic disciplines:

College of Arts and Sciences (904) 254-4412
Liberal Studies Program
Psychology
Social Sciences
College of Business Administration (904) 254-4412
General Business Administration
Economics (partial)
Finance (partial)
Management (partial)
Marketing (partial)

College of Education (904) 254-4428
Elementary Education
Exceptional Education
Vocational Education

College of Health & Public Affairs (904) 254-4412, 254-4428
Criminal Justice
Nursing

Graduate (Master's Level) Programs (904) 255-7423
Business Administration (M.B.A.)
Counselor Education:
  School Counseling
  Mental Health Counseling
Educational Leadership
Engineering (Video)
Public Administration
Vocational Education
ENDOWED CHAIRS

Endowed chairs are established under terms of the 1980 Florida Eminent Scholars Act, which provides $420,000 in state funds to match $600,000 in contributions from private sources within a 6-year period. UCF presently has six fully funded endowed chairs and three others fully pledged:

Phillips-Schenck Chair in American Private Enterprise Created in 1980 as the focal point for a continual dialog on major economic issues, comparative economic systems, and economic decision-making in business. The Chair: Dr. David F. Scott, Jr.

Charles N. Millican Chair in Computer Science Created in 1983 and dedicated to probing the frontiers of computer science, with emphasis on the direction that the discipline will take over the next decade. The Chair: Dr. Narsingh Deo.

William and Alice Jenkins Chair in Community Arts — Created in 1986 to enable UCF to design and oversee programs covering art administration, art therapy and art education within the Central Florida community. The Chair: Dr. Kristin G. Congdon.

Carl H. Galloway Chair for Excellence in Business — Created in 1986 to honor Carl Galloway, a pioneer in telecommunications. This chair will establish a Ph.D. program in Business Administration.

Cobb-L.J. Hooker Chair in Optical Sciences and Engineering — Created in 1988 as the largest academic gift ever received by UCF. The gift supports the work of an internationally recognized scholar in laser and optical sciences. The Chair: Dr. George I.A. Stegeman.

General Mills Chair in Restaurant Management — Created in 1990 to develop a program of excellence in restaurant management, this chair, the first of its kind in the country, will also serve as a critical resource for the hospitality industry.

SunBank Chair of Banking for Teaching Excellence — Created in 1989 to attract a nationally or internationally prominent expert in banking and a strong commitment to undergraduate, graduate and Executive Development.

Al Burnett-Contemporary Cars Eminent Scholar Chair in Accounting — Created in 1989 to support an exceptional faculty member in the School of Accounting.

Bert Fish Memorial Eminent Scholar Chair — Created in 1990 to establish an endowed chair in nursing education. This is the first chair to be established at the Daytona Campus. It is designed to improve nursing education and ease the shortage of nurses.

INTERNATIONAL STUDIES AND PROGRAMS

Director: Denise L. Young, Study Abroad: Heinrich Barsch, PC 542, Room 114 (Social Work Trailer), Phone (407) 823-5375, FAX (407) 823-5211.

Director, Florida/Canada Linkage Institute: M. Elliot Vittes, Phone (407) 823-2608

Director, Florida/Eastern Europe Linkage Institute: Richard Astro, Research Pavilion, Suite 130, Phone (407) 658-5573, FAX (407) 658-5570

One of the University of Central Florida’s five general goals is to achieve prominence by providing an international focus to its curricula and research programs and increasing the number and diversity of international students and cross cultural activities. UCF offers a variety of programs that support the goal to internationalize the university by offering students an opportunity to gain first-hand information on the arts, customs, economy, geography, human services, languages, and political systems of other countries. UCF also offers many types of study abroad programs that meet general education requirements as well as the needs of majors in all colleges.

The Office of International Studies (OIS) is a university level office which coordinates and serves as a clearinghouse for all international programs within the university. The mission of the OIS is to create an environment that facilitates the identification, development, promotion, coordination, and support of high quality international activities related to the academic mission of UCF. The ongoing development of the international dimension at UCF will be realized through the implementation of goals and objectives related to the curriculum, faculty development, policies and planning, academic support, students, the community, funding, and external agencies. The general goals stated in the UCF Five Year Plan for International Studies are:
• To infuse the curriculum with international content that will teach students to think about themselves and their profession within an interdependent world context and prepare them to compete in a global market.

• To increase the pool of faculty with international expertise in order to have an impact upon all facets of the academic experience at UCF.

• To create an environment that encourages the development and continuation of international programs through the appropriate policies.

• To identify and improve all components of academic support that are integral to internationalizing UCF.

• To offer students an educational experience that will prepare them to compete as global citizens in an interdependent and diverse world.

• To create strong linkages between the international dimensions of UCF and the Orlando community.

• To develop additional methods of funding international programs and activities at UCF.

• To monitor the activities of and develop contacts with external agencies relevant to the international mission of the university.

STUDY ABROAD PROGRAMS

The primary purpose of study abroad programs is to improve the linguistic and cultural proficiency of the UCF students. Study abroad is not just for foreign language majors. UCF has programs designed to meet the general education and language requirements of all students, as well as programs designed for majors within every college. The benefits of participation in a study abroad program transcend the courses content.

The UCF study abroad programs are designed and administered by UCF faculty. All programs require a person with good health, emotional stability, maturity, adaptability, curiosity, and a sense of adventure. Students have the choice of programs that last one year, one semester, or six weeks. Some programs require proficiency in a foreign language, others do not. Prerequisites, length of stay, and academic requirements vary by program. UCF has summer programs in Canada, Germany, Italy and Spain. UCF faculty and students also participate in State University System programs in Cambridge and London, England, and Florence, Italy. If UCF does not offer a program in the language or country of your choice, the Office of International Studies will provide information from the inventory of study abroad programs offered through the State University System of Florida. For information on these programs call (407) 823-5375

LINKAGE INSTITUTES

The eleven Binational Linkage institutes were established by the Florida Legislature to mobilize the resources of Florida universities and community colleges and integrate them with the efforts of government and business. They were created to enhance the State's competitive position in strategic foreign countries. Institutes have been created for Brazil, Canada, the Caribbean, China, Costa Rice, Eastern Europe, France, Israel, Japan, Mexico, and West Africa. These institutes are authorized to waive up to 25 FTE of the out-of-state portion of tuition for SUS and community college international students from the representative countries each academic year.

The University of Central Florida is home to two of these linkage institutes. For more information about the Florida-Canada Linkage Institute, contact Dr. M. Elliot Vittes (407) 823-2608. For more information about the Florida-Eastern Europe Linkage Institute contact Dr. Richard Astro, (407) 658-5572. Contact the OIS for the names and numbers of the directors of programs located at the other SUS universities.

AREA STUDIES PROGRAMS

Area Studies programs are multi-disciplinary programs that focus on specific regions or cultural groups. UCF has five area studies programs with an international focus: Asian, Canadian, Judaic, Latin American and Iberian Studies, and Russian Studies. Although the academic home of these programs is the College of Arts and Sciences, faculty from across the entire university may participate in these programs. These programs may be elected as
minors by students majoring in any discipline within the university. For more information about the programs and contact numbers of the program directors see the list below. Contact the Office of International Studies for assistance or referral for all international inquiries regarding academic programs.

CANADIAN STUDIES PROGRAM

Canadian Studies offers both a certificate and a minor but not a major. This program is interdisciplinary and includes courses from the departments of Criminal Justice and Legal Studies, English, Foreign Languages, History, Political Science, Sociology and Anthropology, and the College of Engineering. In addition, UCF is the site of the Florida-Canada Institute, a state program which offers other activities relating to Canada. For information consult Dr. M. Elliot Vittes, Director of Canadian Studies, at the Florida Canada Institute Center, FA 408D, (407) 823-2608.

Asian Studies — Contact: Dr. Husain Kassim (407) 823-2803
Canadian Studies — Contact: Dr. Elliot Vittes (407) 823-2608
Latin American and Iberian Studies — Contact: Dr. Jose Fernandez (407) 823-2389
Judaic Studies — Contact: Dr. Moshe Pelli (407) 823-5039
Russian Studies — Contact: Dr. Richard Crepeau (407) 823-2224
The University Library, housed in a facility of 200,000 square feet, has a collection of over 939,000 volumes (books, journals, government documents) with approximately 5,000 subscriptions (journals, newspapers, and other serials) and over 7,500 media titles. The Library is a partial depository for US and Florida documents, and US Patents. The Library online catalog, called LUIS, may be accessed through terminals in the Library, at other Campus locations, or from personal computers at home. Through LUIS, Library users can determine whether the UCF Library owns a particular item, and the location and availability of the item. In addition, LUIS also provides online access to catalogs of all state university libraries in Florida, and to ERIC, IAC, and other indexes.

The University Library is open approximately 95 hours each week, including evenings and weekends. A shortened schedule is maintained during vacation periods, and hours are extended during the last few weeks of each semester. A staff of professional librarians and paraprofessionals is available to assist and advise those using the Library. Arrangements may also be made for class or small group instruction. Faculty, staff, and students can obtain materials not available in the Library's collections through the Interlibrary Loan service. The Library can provide customized computer-produced bibliographies from any of approximately 500 different commercially available databases.

Special services are provided for the disabled. By using a computer terminal, disabled students can determine the availability of the books they need, and telephone the Library to request that books be brought to them at a convenient location on campus. A Kurzweil reading machine is available in the Library for the visually impaired; students or faculty may arrange for instruction in its use. Through the cooperation of the University's Office of Student Disability Services and the Florida Bureau of Blind Services, the Library staff can aid disabled students in obtaining special equipment they may need to use Library resources.

Students enrolled in the University's area campuses in Daytona Beach and Brevard County receive a full range of services from the Daytona Beach Community College Library and the Brevard Community College Library. Students at the South Orlando Campus have access to an "electronic" library. Online access to the catalog of the main Library collection is available from all branch campus locations and materials are delivered through a regular courier service.

THE UCF ALUMNI ASSOCIATION

The University of Central Florida Alumni Association was developed to maintain awareness and support of the University by our alumni. Membership is open to all alumni and friends of the University. Membership in the Alumni Association provides many benefits, including:

- One-year subscription to The UCF AlumNews (6 issues)
- Free borrowing privileges at UCF library (main branch)
- 15% discount off logo items at UCF Bookstore
- Career assistance with SkillSearch & UCF Career Resource Center
- Free access to campus Macintosh Computer Lab
- Discounts on Budget and Dollar car rentals
- Free usage of several on-campus recreational facilities
- Members-only discounts at Association-sponsored events
Each member participates in the election of a Board of Directors for the Association and every active member is eligible to hold office on the Board. The Board guides the direction of the Association and the development of programs and annual scholarships to undergraduate and graduate students. For information, contact the UCF Alumni Relations Office, Administration 340, Phone (407) UCF-ALUM (823-2566).

UNIVERSITY OF CENTRAL FLORIDA FOUNDATION, INC.
The UCF Foundation, Inc. is a non-profit, tax-exempt corporation directed by a 60-member community based Board of Directors that encourages, solicits, receives, and administers private gifts and bequests of property and funds for scientific, educational, and charitable purposes. All gifts to UCF are received and processed through the Foundation for support of the University.

OFFICE OF INSTRUCTIONAL RESOURCES (OIR)
Instructional Resources provides UCF faculty with graphic, photographic, and television production; a full range of audiovisual and classroom support services; and a wide range of instructional development assistance and consultation. Instructional Resources also administers the Center for Faculty Support, the Multimedia Center, Brevard Educational Cable Network, ITFS television, and WBCC-TV.

Instructional Resources, through the OIR Auxiliary, provides design, production, and presentation support to University-affiliated organizations, other educational institutions, educational non-profit organizations which have UCF faculty or staff as members and local non-profit public service organizations.

UNIVERSITY BOOKSTORE
The University Bookstore is owned and operated by the University of Central Florida. The University Bookstore is conveniently located in the Student Services Building and is open to the public. In addition to textbooks and school supplies, this facility offers a complete line of UCF insignia clothing and gift items. A brochure of UCF items is available for mail order purchases. Please call (407) 823-2665 to request a brochure or inquire about store hours.

INTERCOLLEGIAITE ATHLETICS
Programs in Intercollegiate Athletics are coordinated by athletic department coaches and staff under the general supervision of the Director of Athletics.

The University of Central Florida is a member of the National Collegiate Athletic Association (NCAA), Division 1. Intercollegiate athletic contests are governed by the rules of play published by NCAA and all established eligibility standards are observed.

UCF's current intercollegiate sports for men include baseball, basketball, cross county, golf, football, soccer, track, and tennis. Women's sports include basketball, cross-country, golf, soccer, track, tennis and volleyball. Crew and waterskiing are intercollegiate club sports for both men and women.

THE ORLANDO-UCF SHAKESPEARE FESTIVAL
The Orlando-UCF Shakespeare Festival is a year-round arts and humanities project whose center is its professional Equity repertory theater, producing the works of Shakespeare and other classical playwrights. Performances are every April at the Walt Disney Amphitheater in downtown Orlando, at Lake Eola Park.

In its fifth anniversary season, the Festival has achieved a position of national recognition, attracting its acting company as well as supporting artists and scholars, from around the world. The Festival has been featured in such national publications as Theater Week, Backstage, and Southern Theater. The Orlando-UCF Shakespeare Festival also has several affiliated activities which take place throughout the year.

Among the Festival's affiliated activities are its Young Company: a classical multietnic, multiracial acting company composed of talented Central Florida youngsters, mentored by UCF students; Shakespeare at Elderhostel: an international education program for senior citizens; Shakespeare: In The Mind's Eye: a performance-based study guide available to 25,000 teachers and students in Central Florida; Classics In Context: a year-round community-anchored series of special events, which in 1994, features a radio talk show produced by WUCF, and featuring faculty, students and Orlando citizens discussing modern themes
and issues from the Season's plays; The Center For Dramatic Literature, Humanities and Civic Values: an exciting program for professionals in our community which explores issues of ethics, leadership, and decision-making; the Orlando-UCF Shakespeare Festival Class: an interdisciplinary class, co-presented at Rollins College, offering a study of the plays within the Festival's environment; the UCF Early Music Ensemble: an on-going ensemble of community ad UCF students who play music from the Medieval Renaissance and Baroque periods on period instruments. Musicians drawn from the Ensemble serve as the Festival's resident musical company.

Internships, special topics classes, and independent studies with the Festival involve students from film, art, English, humanities, journalism, music, education, theater and engineering. Other disciplines interested in exploring formal relationships with the Festival should contact the Orlando Shakespeare Festival's Artistic Director, Dr. Stuart E. Omans, Professor of English, 30 S. Magnolia Avenue, Suite 250, Orlando, Florida 32801, (407) 423-6905.

CENTRAL FLORIDA RESEARCH PARK

The Central Florida Research Park, abutting the main UCF campus, is a university related research park established as a result of legislation passed by the Florida Legislature in 1978. The Park is a cooperative effort between the University of Central Florida, the Orange County Research and Development Authority, and the Orange County Board of County Commissioners (who appoint the members of the Authority). The governing body of the Park is the Orange County Research and Development Authority.

The objectives of the Central Florida Research Park are in keeping with the legislative action which enabled its creation "to encourage and promote the establishment of research and development activity combining the resources of institutions of higher learning, private sector enterprise involved in pure or applied research, and state or federal governmental agency research."

The ultimate goal of university-related research parks is to establish an academic/industry community resulting in a unique approach to the creation of a more effective cooperative academic/industrial endeavor. The University and officials of the Central Florida Research Park believe that the potential for the establishment of close ties between the University and industry will create an attractive environment conducive to the location of research-oriented industry in the Park. This activity will enrich and support the academic, teaching, and research programs of the University. The University, in turn, as a community of scholars, reservoir of knowledge past and present, and creator of new knowledge and discovery, can provide the necessary expertise and human resources to enhance the research and development activities required and planned by Park residents.

Totally planned to provide a campus-like environment for business adjacent to UCF, the Central Florida Research Park consists of over 1,000 acres of land. Businesses which desire a "university relationship" can purchase or lease land in the Research Park on which to construct a facility or can lease space for office, office/lab, or light manufacturing activities.

Several University organizations including the Institute for Simulation and Training, and the Center for Research and Education in Optics and Lasers (CREOL), are located in the Research Park. The Naval Air Warfare Center Training Systems Division, and the Army Simulation, Training, and Instrumentation Command (STRICOM), the focal point of the nation's simulation and training industry, have their headquarters in the Research Park. Over 700 million dollars a year in federal contracts is granted by the Army and Navy each year.

Currently over 70 companies are located in the Research Park pursuing activities in simulation and training, lasers, optical filters, behavioral sciences, diagnostic test equipment, and oceanographic equipment. Almost 4,000 employees currently work in the Research Park including many students and faculty.

Research Park tenants are involved with the University of Central Florida through sponsored research, using faculty as consultants, and using graduate and undergraduate students for intern programs and part-time employment. Research Park tenants can also contract with the University for the use of the library, computer resources and laboratory facilities. Cooperative projects range from technical research to developing business plans and employee training programs.
TRANSIT SERVICES

Through joint efforts of UCF Student Government, LYNX and the University/Alafaya Corridor Transportation Association (UACTA), UCF staff, faculty and students have the availability of a number of transit options.

Three transit routes serve UCF from Oviedo, Downtown Orlando and both Valencia Community College campuses. Through the use of these routes, commuters can connect to most anywhere in Greater Orlando. Individual route times vary between thirty and sixty minutes. Cost for LYNX routes is seventy-five cents per ride.

The LASER Shuttle is a local shuttle system with three separate routes. These routes serve all local residential and commercial areas as well as the Central Florida Research Park and the Quadrangle. The LASER shuttle is identified by the UCF sports depicted on each shuttle. LASER runs every thirty minutes and costs twenty-five cents per ride. Semester passes are available at the UCF Bookstore or Kiosk.

Route maps may be obtained at the Administration Building Information Booth or by calling LYNX at (407) 841-8240.
STUDENT AFFAIRS

INTRODUCTION
The mission of the Division of Student Affairs is to provide services and programs to enhance the teaching/learning process while simultaneously improving the student's total collegiate experience. In partnership with other university divisions and the community, the division fosters an environment that promotes the holistic development of students and encourages lifelong learning. Student Affairs at the University of Central Florida encompasses three separate but interdependent components: student services, student life and student development.

OFFICE OF THE DEAN OF STUDENTS
The Dean of Students Office (Admin Bldg., Room 282, (407) 823-2851) is the primary source for students seeking information on non-academic areas of the University. The office staff strives to introduce students to educational opportunities designed to provide personal, social, and academic growth outside the classroom. Additionally, the Deans supervise the judicial affairs process as well as counsel students confronted with a variety of difficulties, referring students for specialized professional services as necessary.

The Division of Student Affairs annually publishes the student handbook, The Golden Rule, which contains more detailed information on student life. Copies may be obtained in the Student Affairs Suite, Room 282, Administration Building. Students are urged to take advantage of the many services and educational programs available through the Dean of Students Office and the Division of Student Affairs.

CONFIDENTIALITY OF STUDENT RECORDS
The procedures for the confidentiality of student records are based on state regulations and the federal Family Educational Rights and Privacy Act of 1974. Students who have questions concerning the confidentiality of records should contact the Dean of Students Office. Details of the University practices for confidentiality are presented in The Golden Rule.

CLASSROOM RESPONSIBILITY
Students are responsible for maintaining a classroom decorum appropriate to the educational environment. When the conduct of a student or group of students varies from acceptable standards and becomes disruptive to normal classroom procedures, the instructor has the authority to remove the offending party from the room.

STUDENT CONDUCT
Students are subject to federal and state laws and local ordinances as well as regulations prescribed by the University of Central Florida and the Florida Board of Regents. The breach or violation of any of these laws or regulations may result in judicial action. Detailed conduct regulations and procedures are presented in The Golden Rule.

A person applying for admission to UCF who has declared a violation of the law which resulted in probation, community service, a jail sentence, or the revocation or suspension of their driver's license (including traffic violations which resulted in a fine of $200 or more) may have circumstances of the case reviewed by the Dean of Students to consider eligibility for admission.

STUDENT GOVERNMENT
The purpose of the Student Government is to provide a system whereby students can effect progressive changes that bring about improvements in campus life. Student Government also endeavors to promote better communication and understanding among the UCF family and to provide certain services which impact student life. All enrolled students at UCF campuses, both graduate and undergraduate, are considered active members of Student Government who are allowed to voice their opinions through senate representatives. Funds available from the Activity and Service Fee paid by students are used to provide numerous activities and services to students to support their academic
endeavors at UCF. SG is effective at lobbying for the rights of students at local, state, and national levels.

The democratic process of SG is grounded in the fundamental structure of the U.S. Government. The executive, legislative, and judicial branches have representatives from each college at UCF. The structure of SG provides an atmosphere that reflects the democratic processes of the real world thus providing students an opportunity to become educated and experienced in practical situations.

Some of the services made available to students and funded by student activity and service fees are: legal services, computer lab, discount entertainment tickets, free local telephones, vehicles for clubs and organizations use, and funding for recreational services as well as campus programming.

Students interested in working with SG may obtain information from the SG offices located in the Student Center (407) 823-2191.

STUDENT LEGAL SERVICES
Student Legal Services provides students with advice and consultation including court representation in selected areas of law such as landlord/tenant, consumer, simple wills, and non-criminal traffic. Each eligible student (an undergraduate enrolled in six UCF hours or graduate enrolled in four UCF hours) is entitled to consult with the Program Attorney about any legal matter not excluded by program guidelines free of charge. Students in need of legal services should contact Student Legal Services at (407) 823-2538, or Student Center Room 210. This service is by appointment only, and no legal advice is given over the phone.

ORIENTATION
Orientation sessions are available to all new students at the University of Central Florida. Important information is provided regarding advisement, registration, housing, the transition to college life, and the administration of placement tests. Faculty, administrators and a specially trained group of students assist the sessions and are available to answer any questions. Information is mailed to each student accepted by the University regarding date, time and location of the orientation sessions.

UNIVERSITY COUNSELING AND TESTING CENTER
The University Counseling and Testing Center (Recreational Services Building, Room 203 (407) 823-2811) offers a professional staff of psychologists and counselors to assist students through educational, vocational, and career counseling; and personal, social, relationship, marriage, and family counseling.

The Center administers the following national testing programs: GRE, LSAT, GMAT, and MCAT. In addition, the Center administers the College Level Academic Skills Test (CLAST), and a variety of interest, aptitude, career, occupational, and personality assessments.

The Center presents special programs throughout the year, including training in relaxation and coping skills, self-hypnosis training, stress reduction training, and group psychotherapy. All Center services are free to UCF students.

CAREER RESOURCE CENTER - CAREER PLANNING AND PLACEMENT
The Career Planning and Placement Office, located in Suite 124 of the Administration Building (407) 823-2361, is a career resource center for all University of Central Florida students and alumni. The Center provides individualized counseling about current and projected trends in the job market. Services also include: resume advice and critiquing, CHOICES — (computerized career guidance), career planning mini-classes, resume referrals at employers’ request, on-campus interviews by employers, lists of full-time and part-time job vacancies, interviewing tips, and help in organizing a job search.
The Career Resource Center provides information about a broad cross section of employers. Students just beginning studies at UCF are advised to begin preparing for a career. To make the most effective use of the Placement Service, seniors are urged to register with the office two semesters prior to graduation. Further information may be obtained by visiting the Center or telephoning (407) 823-2361.

HOUSING

1. Regularly enrolled single students paying registration fees for a minimum of nine semester hours may apply for assignment to University residential units. Currently, there are seven residence halls on the campus of the University of Central Florida. The total combined designed capacity of the seven halls is 867 spaces. Additionally, there are 15 buildings in the Lake Claire Courtyard Apartment Complex which house 702 students in single occupancy four bedroom apartments. These apartment facilities are restricted for assignment to students who have completed at least 30 semester hours of college credit. Because of the limited amount of space in University housing facilities, the University does not require any student to live on campus. **There are no on-campus accommodations for married students.**

   Priority for assignment is given to incoming Freshmen who will occupy approximately 50 percent of the University's housing capacity in the seven residence facilities. Current residents will occupy most of the remaining space. The spaces set aside for incoming Freshmen are limited by the University's overall residence hall capacity. Therefore, those desiring to reside on campus should apply for admittance to the University as soon as possible.

   Applications for housing can be accepted only from those applicants who have been admitted to the University. Priority for room assignments for new applicants is based on the date of receipt of the completed housing application in the Housing Office. Applicants should CAREFULLY READ the application before submitting it to the Housing Office along with the Letter of Acceptance to the University and the $150.00 prepayment.

2. Housing contracts (whether in the on-campus apartments or the residence halls) when issued for Fall Semester occupancy, serve as a **two-semester (Fall AND Spring) obligation** between the applicant and the Housing Office. Housing contracts issued for
the Summer Semester are a one-semester (Summer Only) obligation and do not extend to include an assignment to Fall housing accommodations.

3. Applicants have the option of choosing one of several Meal Plans available at the University. Specific information concerning University Meal Plans is available from Marriott Corporation, P.O. Box 168017, UCF, Orlando, FL 32816-0222.

Applications and other information concerning University housing may be obtained by consulting the Department of Housing and Residence Life, P.O. Box 163222, UCF, Orlando, FL 32816-0222 (407) 823-4663.

Off-Campus Housing

With two miles of the campus are numerous apartment and duplex communities, in addition to a privately-owned residence hall complex. Sidewalks, bike paths, and Tri-County bus service connect many of these facilities with the University. Students living off-campus are invited to participate in one of the University meal plans.

STUDENT HEALTH SERVICES (SHC)

Recognizing the importance of lifestyle in health and the prevention of disease, the Student Health Service combines quality care for illness and accidents with an aggressive health education and lifestyle enhancement program. A student Wellness Advocate Team enhances the health promotion efforts of the Student Health Center.

The Student Health Center (SHC) is staffed by medical doctors, certified nurse practitioners, physician's assistants, Registered Nurses, and a full complement of other medical support personnel. Full referral service to Orlando area specialists is established. Charges incurred outside the Student Health Center are the responsibility of the student. A variety of laboratory and x-ray tests are available at the Student Health Center. Testing for HIV (AIDS virus) is not done in our laboratory. Referral arrangements may be made for anonymous AIDS testing by contacting the Chief Nurse at the Student Health Center at (407) 823-2701, ext. 5275.

When the Student Health Center is not open, students can use the "Hot Line" phones at the front and back doors of the building to obtain help for urgent needs.

By Board of Regents regulation, each student must demonstrate Rubella and Rubeola immunity prior to registration. The Student Health Center cannot provide immunization services to meet this requirement. It is a pre-registration requirement and prospective students are not eligible for services at the SHC. Medical records are held in the strictest confidence.

Each health fee paying student is entitled to the benefits outlined in the SHC brochure; faculty and staff can only be seen on an emergency basis, and then for a fee (except Worker Compensation cases). Optional health and accident insurance may also be purchased by contacting the office of Student Affairs or Student Government (please note optional health and accident insurance is not part of the Student Health Center program and will provide a variety of coverages for health needs beyond the scope of Student Health Services).

Blood drives are held several times annually by the Central Florida Blood Bank. Students, faculty, and staff are eligible for credits from the blood bank upon demonstrating need.

STUDENT CENTER

Student life at the University of Central Florida emanates from the Student Center. As the focal point for campus activities, the Student Center serves students, faculty, staff, patrons, alumni, and guests with its many programs, services, and facilities. The Student Center is funded through Activity and Service fees as allocated by Student Government.

Several student organizations flourish in the Student Center. The Campus Activities Board sponsors a wide variety of educational and entertaining programs for the UCF campus community. The Student Government Association provides for active leadership experiences through the Senate and committees working for student rights. The Orientation Team coordinates the orientation programs. Greek Council promotes memberships in, and operation of, Fraternities and Sororities.

The Student Center provides other services for students as well. The Game Room offers billiards, ping pong and video games. Student Government Association operates a Macintosh computer lab. There are four food services facilities, an information desk, conference and meeting rooms, and the Student Center Auditorium. Reservations for university
facilities can be made at the Student Center Information Desk. The Student Center Director is located in SC 198. For more information regarding the Student Center, call 823-2611.

STUDENT ORGANIZATIONS

Student Organizations play a vital role in enhancing student life at the University of Central Florida. Academic, pre-professional, honorary, military, minority/international, religious, service, social, special interest, and sports are the ten categories of the over 150 organizations available. The Student Organizations Office publishes a Student Organization Handbook listing all of the organizations at UCF and their purposes.

For further information regarding clubs and organizations, call (407) 823-5107 or visit the Student Organizations Office, Student Center, Room 215.

RECREATIONAL SERVICES

The Office of Recreational Services offers a wide variety of sports and recreational opportunities to the students of UCF and their immediate families and some opportunities to UCF faculty, staff, and the surrounding community. These opportunities include intramural sports leagues and tournaments, organized recreation and fitness programs, unstructured open recreation, sports-related special events, screen printing and racquet stringing. Equipment may be checked out for use on and off campus.

The Office of Recreational Services is located next to the pool. The phone number is (407) 823-2408.

OFFICE OF STUDENT INFORMATION AND EVENING/WEEKEND STUDENT SERVICES

The Office of Student Information and Evening/Weekend Student Services is a one-stop communications network and information center committed to gathering and disseminating information to students. The office is also responsible for the administrative supervision of student affairs functions for all University students taking evening and weekend classes and for the administration and programming of the 24-hour Student Information Buzzline, (407) 823-5479. The office phone number is: (407) 823-3111.

Information Booth & Evening Student Services:
9:00 a.m. to 9:00 p.m. Monday through Thursday — second floor Administration Building, Education Building Lobby, and College of Business Information Booth
9:00 a.m. to 5:00 p.m. Friday (same locations as above)
Weekend Student Services
10:00 a.m. to 2:00 p.m. Saturday at SG Kiosk (407) 823-2060
2:00 p.m. to 5:00 p.m. Sunday at SG Kiosk (407) 823-2060

INTERNATIONAL STUDENT SERVICES

The International Student Office provides services for all international students and resident aliens. Its central role is to assist International students and scholars attending UCF to adjust to the changing lifestyle in order to achieve their educational goals and gain a meaningful living experience in the United States. A wide range of special services is provided to the UCF international community, such as issuance of immigration forms I-20 A/B and IAP-66, assistance in locating off-campus apartments, counseling on personal, financial, academic, and cross-cultural communication matters, advisement in immigration and tax matters, promotion of social activities, and home visits in Central Florida. Further information may be obtained from the International Office, Administration 123, or by calling (407) 823-2337.

STUDENT DISABILITY SERVICES

Student Disability Services provides information and orientation to campus facilities and services, assistance with classroom accommodations, assistance with course registration, disabled parking decals, counseling, and referral to campus and community services for students with disabilities.
Services are available to students whose disabilities include, but are not limited to, hearing impairment, manual dexterity impairment, mobility impairment, specific learning disability (such as dyslexia), speech impairment, visual impairment, or other disabilities which require administrative or academic adjustments.

If a student needs special admission consideration based on a disability, the student should answer this question on the Application for Admission form and send the requested official documentation to the Admissions Office. Students who have a disability which may require special assistance also are requested to voluntarily contact the Office of Student Disability Services. All information is confidential and will be used only to assist the student.

Information and assistance are available for faculty members working with students who have disabilities.

A Telecommunication Device for the Deaf (TDD) is available for hearing-impaired or speech-impaired persons with TDD's to contact the University. Phone (407) 823-2116 TDD calls ONLY.

Further information may be obtained from the Student Disability Services Office, Administration Building, Suite 282, Phone (407) 823-2371.

CREATIVE SCHOOL FOR CHILDREN

The Creative School for Children provides an educational program, including kindergarten-first grade, for children two through five years old. The daily program is planned and conducted by Florida-certified teachers. The program provides a wide variety of experiences in art, music, language, motor skills, science, math, social studies, perceptual development, socialization, and self-discovery. Planned and spontaneous field trips and special family programs are a part of the yearly schedule. Experiences in observation and training in academic areas are also made available to University students. Opportunities for educational research are available to University faculty and graduate students.

A Flex Time program is provided for children three through twelve years old. This program provides educational activities for children who need part time schedules. This program is open daily and evenings Monday-Thursday.

The school conducts a Summer Day Camp for elementary school children during Summer "B" semester.

For further information, call the Creative School for Children, (407) 823-2726.

OFFICE OF VETERANS' AFFAIRS (OVA)

The Office of Veterans' Affairs (OVA) is a center for all veterans, including students who are using VA educational benefits to further their education. The office, located in room 132 of the Student Center (407) 823-2707 has a professional staff augmented by student veterans to assist in providing information concerning entitlements, filing claims to the Department of Veterans Affairs (DVA), and certifying enrollment at the University. The office also provides counseling for personal and academic concerns, tutorial assistance, and referral to various community agencies. Veterans and eligible dependents must be certified through the Office of Veterans' Affairs to receive DVA educational benefits. The office monitors the academic progress of all those receiving DVA educational benefits.

All veterans and eligible dependents are urged to consult the Office of Veterans' Affairs early in the process of applying for admission to UCF.

Veterans' Benefits

Students who are entitled to DVA educational benefits must make initial contact with the Office of Veterans' Affairs. To maintain eligibility for DVA education benefits, students must adhere to the policies and procedures contained in the UCF "Student Veteran Handbook" and DVA rules and regulations. A copy of the "Student Veteran Handbook" can be obtained at the Office of Veterans' Affairs.

Students eligible for DVA education benefits, may also be eligible for a VA Deferral of Tuition and Fees. This deferment is authorized once each academic year, beginning with the Fall semester. The VA Deferral due date is published in the Class Schedule each semester. STUDENTS ELIGIBLE FOR FINANCIAL AID ADEQUATE TO COVER TUITION AND FEES ARE NOT ELIGIBLE FOR THIS DEFERMENT.

Undergraduates must carry at least 12 semester hours for full-time DVA benefits, 9-11 semester hours for three-quarter time benefits, and 6-8 semester hours for half-time benefits. Five semester hours or less will be reimbursed at cost of tuition and fees or quarter-
time depending on DVA Chapter. Students who are classified by the University as post-baccalaureate must meet the same semester hour requirements as undergraduates and will be paid at the undergraduate rate, regardless of the course level.

Students intending to enroll simultaneously at UCF and another institution have the option of receiving DVA benefits, but first must consult with the Office of Veterans' Affairs and obtain a Transient Permission Form from UCF Student Records.

Veterans and eligible dependents who wish to change their major, or pursue a double major or dual degree, or add a minor may also receive VA benefits but must first make arrangement through the Office of Veterans' Affairs before taking any of the new courses. This includes a minor in Military Sciences. Note: some majors have room in the program for extra electives that can be filled with courses for a minor or for another major.

In order to receive veterans' educational benefits, students must maintain satisfactory academic progress, and conduct. Accordingly, benefits will be terminated for individuals who are disqualified, excluded, suspended or expelled from the University. If reinstated by the University following disqualification, exclusion, suspension or expulsion, the veteran or eligible dependent must contact the Office of Veterans' Affairs to have their DVA educational benefits re-started. Individuals placed on academic probation will continue to receive benefits as long as a 2.0 or higher GPA is earned each semester. For students who fail to maintain satisfactory academic progress, benefits will be terminated once the required semester hours of course work for the program of study are completed, regardless of the GPA or eligibility for graduation.

Veterans and eligible dependents may also draw VA benefits during the periods of eligibility while on cooperative education assignments. The recipient may choose to receive benefits at the "co-op rate" which is approximately 80 percent of the entitled monthly DVA benefit. Payment is received during both the on-campus semester and the off-campus work terms. Contact the Office of Veterans' Affairs at (407) 823-2707 for more specific benefit information on Cooperative Education.

See also:
Academic Advising Services
Office of Minority Student Services (OMSS)
Student Academic Resource Center (SARC)
ADMISSIONS SERVICES

The Admission Services Office coordinates the admission and enrollment process of all; undergraduate first-time-in college, transfer, non-degree, dual enrollment, and non state university transient students to the Orlando, Daytona, and Brevard campuses. The office seeks to identify, attract and enroll the desired number of academic, diverse, and able students that can contribute and achieve academic growth from the multitude of programs offered through the university and community we serve. Through managed communication, a data management system and scholarships, the office is able to attract students that are motivated, challenged and have the desire to achieve academic prominence.

Office functions include administering programs for prospective students, such as campus tours, open houses, area receptions, high school and community college visits. Students, parents, high school and community college counselors are consulted with on a continual basis regarding all aspects of admissions and general information on the academic, social, and living components of the university. The office is committed to providing accurate and timely information to all constituents.

APPLICATION FOR ADMISSION

HOW TO APPLY: Applicants should complete the State University System application for admission, and include a 20-dollar non-refundable application fee. Applicants should also request official transcript(s) from each educational institution attended to be forwarded directly to Admissions Services. Students are encouraged to apply several months in advance. Applications will be accepted up to one year prior to the start of the term desired. The priority application deadlines are July 15 for the Fall semester, December 15 for the Spring semester, and April 15 for the Summer term. The priority deadline for most financial assistance and scholarships is March 1. Housing requests are reviewed by date of receipt of housing applications. Applications should be mailed to Admissions Services, University of Central Florida, PO Box 160111, Orlando, FL 32816-0111.

The University encourages applications from qualified persons of both sexes from all cultural, racial, religious, and ethnic groups. The University does not discriminate on the basis of disability in admission or access to its programs and activities.

A summary of the general requirements for admission or readmission to the University is as follows:

- A satisfactory academic record. Each applicant must furnish a complete chronological record of educational institutions previously attended. Official transcripts must be submitted in accordance with instructions on the application form.
- Satisfactory scores on the Scholastic Aptitude Test (SAT) or the American College Test (ACT). Students whose native language is not English must also submit a Test of English as a Foreign Language (TOEFL) score. The required minimum TOEFL score is 550.
- A satisfactory conduct record.

NOTE: Furnishing false or fraudulent statements or information in connection with an application for admission or residence affidavit may result in disciplinary action, denial of admission, and invalidation of credits or degrees earned.

Applicants should understand that minimum requirements are given and that admission to the University is a selective process. The satisfaction of minimum requirements does not automatically guarantee admission. Conversely, Florida Board of Regents policy allows the University to admit students to any semester as exceptions to the minimum requirements. Admissions Services and the Admissions and Standards Committee are responsible for the admission of undergraduate students under this policy. See also: International Students.

CAMPUS TOURS

Campus Tours leave from the Information Booth on the second floor of the Administration Building at 11:00 a.m. and 2:00 p.m. Monday-Friday except on holidays. Group tours may be scheduled by calling Admissions Services at (407) 823-5439.

REACTIVATION

Students who submit an application for admission to UCF and do not attend, may reactivate the original application within two years of the term for which they first applied. To
update the application, complete the Reactivation Form by the published deadline. This form is available in the Admissions Services Office.

READMISSION

Readmission of Previously Enrolled Students is the responsibility of the Registrar’s Office. Students who are in good academic standing but have broken their enrollment by being absent from the University for two major (Fall or Spring) terms must submit a readmission application. Students who have been disqualified and have been absent from the University for at least two semesters, and students who have been Excluded and been absent from the University for one calendar year, are eligible to apply for readmission. The University Registrar is the contact person for this process. The University Registrar’s Office is located in Administration Building 161L and phone is (407) 823-5454.

A. Students must complete the Readmission Application available in the Registrar’s Office.
B. If the student has attended another regionally accredited institution, the student must request official transcripts be sent to the Registrar’s Office.
C. If the student was previously admitted to a limited access program, they will be placed in “Pending” status of that major and must be readmitted by the college or department to the limited access program.
D. If the student has left the state of Florida for a period of at least one year, the student may be required to complete the Florida Residency Affidavit.

Immediate Readmission (or Readmission as exception to University policy) following disqualification or exclusion is the responsibility of the Admissions and Standards Committee. The contact person for these requests is the chair of the committee. The chair’s office is located in Enrollment and Academic Services, Administration Building Room 210. Their phone number is (407) 823-2691.

A. Students seeking immediate readmission must complete the Immediate Readmission Form in the Registrar’s Office.
B. Students are required to request six transcripts (at the student’s cost) from the Registrar’s Office.
C. Students are not allowed to make personal appearance before the Admissions and Standards Committee when seeking immediate readmission.
D. Appeals to decisions of the Admissions and Standards Committee are made to the Associate Vice President for Enrollment and Academic Services.

Any former student readmitted whose all-college or UCF cumulative grade point average was less than 2.0 (“C”) at the time of withdrawal will be readmitted on academic probation. All applicants seeking readmission who have attempted coursework at another institution since last attending UCF will normally be required to be in good standing (2.0 grade point average with no allowance for grade forgiveness) and eligible to return to the last institution attended.

ADMISSIONS AND STANDARDS COMMITTEE

The Admissions and Standards Committee is composed of representatives from the University: representatives from the Faculty Senate, Minority Student Services, Student Affairs, Enrollment and Academic Services, the Student Body, and Admissions Services. This committee normally meets on a regular schedule to review marginal cases and to consider the appeals of applicants. A letter of explanation to the Chair, Admissions and Standards Committee is recommended in establishing the basis for an appeal. Students have the option of appealing a decision in person before the Admissions and Standards Committee.

LIMITED ACCESS PROGRAMS

A limited access program uses selective admission to limit program enrollment. Limited access status is justified when student demand exceeds available resources, such as faculty, instructional facilities, or equipment, or when specific accrediting requirements apply. Criteria for selective admissions include indicators of ability, and indicators of performance creativity or talent to complete required work within the program. Community college transfer students with Associate of Arts degrees from Florida community colleges are given equal consideration with UCF students. Admissions to such programs are governed by 6A-10.24(8), the Articulation Agreement, and by 6C-6.01, FAC, of the Board of Regents rules.
RECORDS

Validity of Documents

All supporting admissions documents must be received directly from the issuing institution or testing agency. If the University finds that an applicant has made a false or fraudulent statement or a deliberate omission on his application, residency affidavit, health report, or any accompanying document or statement, that applicant may be denied admission. Should the student be enrolled when such fraud is discovered, he may be immediately withdrawn (with no refund), further enrollment denied, and credit earned and any degree based upon such credit invalidated.

STUDENT HEALTH HISTORY

Each student accepted for admission shall, prior to registration, submit a Student Health History provided by the University. Documentation of appropriate immunization for measles and rubella is required. Proof of immunization must be provided. This proof is a minimum requirement, and the University may require, in addition, such other evidence of examination as may be determined necessary. Where physician examinations or certificates are required, they must be signed by a doctor of medicine or a doctor of osteopathy.

Students 40 years of age or over are exempt from the Immunization Requirement but are required to submit the Student Health History.

The University reserves the right to refuse registration to any student whose health record or report of medical examination indicates the existence of a condition which may be harmful to members of the University community.

The Student Health History form will be mailed to the applicant at the time of acceptance. Applicants should return the Health History report to the Registrar’s/Records Office.

Deadline for Required Documents

In some cases applicants may be allowed to register on a temporary basis without all records if eligibility for admission can be determined from available records or consultation with the student. All final supporting admissions documents, such as official transcripts and test scores should be received by Admissions Services no later than 20 days after the first day of classes.

TRANSFER SUMMARY INFORMATION

A Transfer Summary Report (TSR) will be prepared on a priority basis for students from whom all final transcripts from each institution attended have been received by the 20th class day. Those students who have not submitted completed records by the 20th class day will be placed on administration hold. Students with incomplete records will not be permitted to register for a future term until all transcripts and other required documentation have been received. Students whose records are not satisfactory may be placed on Academic Probation and may, in certain instances, be removed from classes.

FRESHMAN APPLICANTS

Any student who meets the minimum admission requirements is encouraged to submit an application. The University will do everything possible to accept all qualified applicants who apply before the application deadline date. If the number of qualified applicants exceeds the number the University is permitted to enroll, admission will be on a selective basis. An applicant's total high school record including grades, test scores, educational objective and pattern of courses completed, school recommendation, and personal record will be considered in the selection process. An application pool will be maintained when the number of applicants exceeds the number of qualified students to whom admission may be offered. Based on the number of cancellations received, selections will be made from the applicant pool approximately two months prior to the first day of classes.

The University reaffirms its Equal Educational Opportunity (EEO) commitments and seeks to increase the enrollment of minority students.

High School Diploma

Freshmen who are applying for admission to the University are normally required to have a diploma from an accredited high school. Foreign diplomas must meet the requirements
specified in Florida Statutes, section 229.814 and must be evaluated by Joseph Silny & Associates, Inc. or World Education Services, Inc.

**Entrance Examination Scores**

All applicants for admission must submit test scores from the Scholastic Aptitude Test (SAT) or from the American College Testing (ACT) program. Any student whose native language is not English must submit a test of English as a Foreign Language (TOEFL) score.

### High School Academic Units and Grade Point Average

All applicants must have earned a minimum number of high school academic units (year-long courses which are not remedial in nature) as shown in the table below to be considered for admission. The academic grade point average (GPA) will be computed only on these units. Grades in honors courses, advanced courses, International Baccalaureate, and Advanced Placement (AP) courses will be given additional weight in the computation of the academic grade point average.

The high school academic unit requirements are as follows:

<table>
<thead>
<tr>
<th>ACADEMIC SUBJECT</th>
<th>UNITS REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (Three of which must have included substantial writing.)</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics (At or above the Algebra I level.)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science (Two of which must have included substantial laboratory requirements.)</td>
<td>3</td>
</tr>
<tr>
<td>Social Science (Included: History, Civics, Political Science, Economics, Sociology, Psychology, and Geography.)</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (Both credits must be in the same language.)</td>
<td>2</td>
</tr>
<tr>
<td>Additional academic electives from the above five subject areas and courses recommended by the Florida Association of School Administrators, or other groups, and courses recommended by the Articulation Committee, and approved by the Department of Education.</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

### Eligible Applicants

Eligibility for admissions is subject to satisfactory receipt and review of all items required in the admission process. All applicants must meet the following State University System (SUS) minimum eligibility index standards:

<table>
<thead>
<tr>
<th>If the High School GPA in academic core courses is:</th>
<th>One of the following composite admission test scores must equal or exceed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>*HS GPA</td>
<td>*SAT or *ACT</td>
</tr>
<tr>
<td>2.0</td>
<td>1050 25</td>
</tr>
<tr>
<td>2.1</td>
<td>1020 24</td>
</tr>
<tr>
<td>2.2</td>
<td>990 23</td>
</tr>
<tr>
<td>2.3</td>
<td>960 22</td>
</tr>
<tr>
<td>2.4</td>
<td>930 21</td>
</tr>
<tr>
<td>2.5</td>
<td>900 21</td>
</tr>
<tr>
<td>2.6</td>
<td>890 21</td>
</tr>
<tr>
<td>2.7</td>
<td>880 20</td>
</tr>
<tr>
<td>2.8</td>
<td>870 20</td>
</tr>
<tr>
<td>2.9</td>
<td>860 20</td>
</tr>
<tr>
<td>3.0+</td>
<td>*</td>
</tr>
</tbody>
</table>

* Academic eligibility for admission is determined by academic grade point average and admissions test scores.

Students who have been enrolled in dual enrollment courses will be required to have a "C" average (2.0 GPA) for all dual enrollment course work attempted.

A student applying for admission who does not meet these requirements may bring to the University other important attributes or special talents and may be admitted if, in the judgement of the Admissions and Standards Committee, the student can be expected to do suc-
cessful academic work. The University will provide an individual learning plan for each student admitted under this alternative.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) at the post-secondary level, must satisfy this admission requirement prior to earning 60 semester hours of credit.

TRANSFER APPLICANTS

Transfer applicants are encouraged to review the current edition of UCF’s TRANSFER STUDENT COUNSELING MANUAL available in Florida community college counseling offices. The manual gives the recommended community college course requirements for all majors as well as other helpful information.

Applicants with Fewer Than 60 Credit Hours

All college transfer applicants with fewer than 60 semester hours of acceptable credit must meet freshman high school unit entrance requirements and must meet the high school academic grade point average and minimum SAT or ACT scores (as listed on previous page), have at least a 2.0 grade point average on a 4.0 system for all college-level academic courses attempted, and be in good standing (minimum 2.0 grade point average) and eligible to return as a degree-seeking student to the last institution attended.

Applicants with 60 or More Credit Hours

In addition to the requirements outlined below, all college transfer applicants with 60 or more semester hours of acceptable credit must have a grade point average of at least 2.0 on a 4.0 system for all college-level academic course work attempted and be in good standing (minimum 2.0 grade point average) and eligible to return as a degree-seeking student to the last institution attended.

Applicants with an A.A. Degree from a Florida Public Institution

Admission of Associate of Arts (A.A.) degree graduates from Florida public community colleges and Florida state universities will be governed by the Articulation Agreement between the state universities and public community colleges of Florida, as approved by the Board of Regents and the State Board of Education. The agreement states that except for limited access programs, admission as a junior to the upper division of the University shall be granted to any graduate of a state-approved Florida community college or State University System institution who transfers directly to UCF, who has completed the university parallel program and who has received the Associate of Arts degree which included all of the following:

• At least 60 semester hours of academic work exclusive of occupational courses and basic required physical education courses.
• An approved general education program of at least 36 semester hours.
• A grade point average of at least 2.0 on a 4.0 system on all college-level academic courses attempted. (Only the final grade received in courses repeated by the student shall be used in computing the average.)
• One year of college instruction in a single foreign language. (This requirement applies to those students without the required two units of foreign language in high school.) Students who receive an Associate of Arts degree from a Florida public community college or university but have not met the foreign language requirement and do not qualify in one of the exempt groups defined below may be admitted to the University on a provisional basis. Admission to the upper division will be granted when the foreign language requirement is satisfied.

Two groups of students are exempt from the foreign language portion of the admission requirement. These groups are:

A. Students who received an Associate of Arts from a Florida public community college degree prior to September 1, 1989.
B. Students who enrolled prior to August, 1989 in an Associate of Arts program at a Florida public community college and who maintain continuous enrollment through the completion of the A.A. degree and transfer to UCF. Continuous enrollment is enrollment for a minimum of one term every 12-month period beginning with the
student's first enrollment at a community college and continuing until the student enrolls in the University.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) of such instruction at the post-secondary level, must satisfy the admission requirement prior to graduation.

Florida Community College Associate in Arts graduates are guaranteed the following rights under the Statewide Articulation Agreement (State Board of Education Rule 6A-10.024):

1. Admission to one of the nine (9) state universities, except to "limited access" programs (programs that have additional admission requirements).
2. Acceptance of at least 60 credit hours by the state universities toward the baccalaureate degree.
3. Adherence to university requirements and policies based on the catalog in effect at the time the student first entered a community college, provided the student maintains continuous enrollment.
4. Transfer of equivalent courses under the Statewide Course Numbering System.
5. Acceptance by the state universities of credit earned in accelerated programs (e.g., CLEP, AP, PEP, Dual enrollment, Early Admission and International Baccalaureate).
6. No additional General Education Core requirements.
7. Advanced knowledge of selection criteria for limited access programs.
8. Equal opportunity with native university students to enter limited access programs.

Should any guarantee be denied, students have the right of appeal through the University Articulation Office, Office of Community College Relations.

Applicants with an A.S. Degree

Applicants who have received an Associate of Science degree in Engineering Technology from a Florida public college or university will be admitted only to the Bachelor of Science in Engineering Technology program.

All other A.S. degree applicants must meet the appropriate admission requirements defined in this section.

The A.S. degree does not certify the student as having completed General Education requirements.

Any student whose native language is not English must submit a Test Of English as a Foreign Language (TOEFL) score.

Applicants — More Than 60 Hours, Received an A.A.
Degree from a Florida Public Institution

In addition to meeting the requirements which apply to all transfer applicants, undergraduate transfer students who wish to be admitted to UCF as upper division students must have met all of the following requirements:

• A minimum of 60 semester hours of academic coursework.
• The English and Mathematics requirements of the Gordon Rule.
• Passing scores on three of the four parts of the College Level Academic Skills Test.
• Eight to 10 semester hours of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

Applicants who have not met the above requirements may only seek admission into the lower division.

Any student whose native language is not English must submit a Test Of English as a Foreign Language (TOEFL) score.
Applicants from Unaccredited Institutions

Transfer applicants who otherwise meet all requirements, but who enter from a "regionally" unaccredited college or university will be considered on an individual basis. Admission may be granted on a probationary and/or non degree-seeking basis, depending upon the applicant's record including high school units, entrance examination scores, and high school GPA. The "Transfer Credit" portion of this section provides information relating to transfer of credit for courses taken at unaccredited colleges or universities.

TRANSFER CREDIT

All grades at a regionally accredited college or university in transfer courses that are normally a part of a baccalaureate degree program are shown on the student's permanent record. Credits earned in courses transferred with "D" grades will count toward the credits required for the baccalaureate degree; however, the department or college offering the major determines whether courses with "D" grades in the major may satisfy requirements in the major field.

No credit will be awarded for college-level General Education Development (GED) tests, for courses given without a grade, or for courses carrying grades but not credit hours.

Military Service School Courses

Completed military service school courses may be evaluated on the basis of the recommendations of the American Council of Education (A.C.E.) when official credentials have been properly presented. Credit may be granted when courses are equivalent to those offered by the University. However, recommendations by the A.C.E. are not binding upon the University.

Military credit is not accepted through transfer. Even though military records may have been evaluated by another regionally accredited institution, it is important to have official credentials sent to the University for evaluation.

Credit is not awarded based on job descriptions, for Basic training, DANTES credit, CLEP scores below the 50th percentile, life experience, or coursework that is non-academic.
General Education Transfer Credits

Transfer students from Florida public community colleges or universities may satisfy the General Education Program requirements of UCF by completing the general education program prescribed by the previous community college or university. Transfer applicants with incomplete general education programs from state (SUS) institutions and those from all other institutions will have their credits evaluated on a course-by-course basis.

Grade Forgiveness Transfer

UCF honors grade forgiveness if it has been awarded as part of an A.A. degree from a Florida public community college or university, with the exception of courses taken previously at UCF.

Credits from Private and Out-of-State Institutions

The credit of transfer applicants from private junior and senior colleges and out-of-state institutions will be evaluated on a course-by-course basis. Each student must submit the necessary petition(s) to the appropriate office(s) to determine which courses will transfer with regard to degree progress at UCF. Transfer courses which meet the requirements of the General Education Program and the Gordon Rule are determined through the process described in this catalog under "University Degree Requirements." Each College has different petition procedures, but generally the petitioning of transfer courses for satisfaction of college and major requirements should be done during the second full term of the student's residency at UCF so the accepted transfer courses are clearly understood by the student and the faculty advisor early in the student's program.

Credits from a Previous Baccalaureate Degree

Graduates from other accredited four-year U.S. institutions who apply for admission to work toward a second undergraduate degree must meet the regular requirements of the University (as defined in the "Undergraduate Degree Requirements" section of this catalog). A baccalaureate degree or higher from another accredited four-year U.S. institution satisfies the General Education Program requirements and also provides exemption from the foreign language requirements for admission and graduation.

ACCREDITED INSTITUTIONS

For the purposes of this catalog "Accredited Institutions" means those institutions accredited by any of the following six regional associations:

- New England Association of Schools and Colleges
- Middle States Association of Colleges and Secondary Schools, Commission on Institutions of Higher Education.
- North Central Association of Colleges and Schools, Commission on Colleges and Universities
- Northwest Association of Secondary and Higher Schools, Commission on Higher Schools
- Southern Association of Colleges and Schools
- Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities and Accrediting Commission for Junior Colleges.

Foreign institutions are evaluated through Josef Silny & Associates, Inc. or World Education Services, Inc.

COLLEGE PREPARATORY INSTRUCTION

State statutes require that new students be evaluated in terms of their potential to successfully complete required coursework at the University. Those students who are identified as likely to have difficulty in the areas of mathematics, writing, or reading may be required to take college preparatory courses prior to enrollment in college-level courses in those areas. Students must begin any required preparatory instruction during their first 12 semester hours and finish all such coursework within 3 semesters. New students will be notified of the need to take placement examinations during orientation, or of coursework that will be...
required. For further information, contact Student Academic Resource Center, PC-102, Phone (407) 823-5130.

INTERNATIONAL STUDENT ADMISSION

The University of Central Florida is authorized under Federal law to enroll non-immigrant alien students. Undergraduate applicants should refer to the "Admission" section of this catalog, and graduate applicants to the graduate catalog. In addition, the following is required for admissions:

- International student applications and records required for admission must meet all applicant deadlines.
- Only those students with an Associate of Arts degree from a Florida public community college, or those who have completed their general education requirements (as defined in the Articulation Agreement) with a minimum 2.0 GPA, with no allowance for grade forgiveness, and at least three parts of the College Level Academics Skills Test (CLAST), or those students with superior academic records (i.e., upper 20th percentile or U.S. "B" average equivalent) will be considered for admission. Students who have attended any foreign institution(s) must provide an official course-by-course evaluation from Josef Silny & Associates, Inc. (Evaluation applications may be obtained from Admissions Services or by writing Josef Silny & Associates, Inc., P.O. Box 248233, Coral Gables, FL 33124.) World Education Services, Inc. (WES) Evaluations will also be accepted.
- All applicants whose native language is not English must submit an official score report from the Test of English as a Foreign Language (TOEFL). Undergraduates who have not earned an Associate of Arts degree, or completed the general education requirements (as defined in the Articulation Agreement) from a Florida public community college and passed at least three parts of the CLAST must have a minimum TOEFL score of 550. Graduate applicants should consult the coordinator of their respective program to determine minimum TOEFL scores as well as any other requirements.
- All students who have not earned an A.A. degree from a Florida public institution must also submit an official SAT or ACT score and a high school transcript and Josef Silny & Associates, Inc. evaluation, where applicable, in order to be considered for admission.
- Applicants must file a Confidential Financial Statement confirming availability of finances for each year of study.

The Admissions Office may require additional documents and/or transcripts before an admission decision is made.

INTERNATIONAL STUDENT MANDATORY HEALTH AND ACCIDENT INSURANCE

Each international student accepted for admission shall, prior to registration for classes, submit proof of compliance with the State University System of Florida’s mandatory health and accident insurance requirement.

Minimum coverage limits may be obtained from the office of International Student Services. Written proof of insurance must also be provided to this office (AD 123).

If insurance is issued by a foreign carrier or underwriter a statement must be provided in English that the policy meets the State of Florida minimum levels of insurance coverage.

The University reserves the right to refuse registration to any international student that fails to comply with this insurance requirement or is unable to supply satisfactory proof of insurance. The University also reserves the right to withdraw from classes any international student who fails to maintain insurance coverage, cancels insurance coverage or avoids in any way the responsibility to comply with the insurance requirement.

TEMPORARY STUDENTS

Any student who applies before the application deadline date and is permitted to register and attend classes without a complete admission file is granted a maximum of 4 weeks (first 20 class days) to furnish all required records. Records indicating ineligibility may result in cancellation of the student’s registration.
TRANSIENT STUDENTS

Students in good standing with a 2.0 overall academic average in any accredited college or university who wish to enroll for one term at UCF may be considered for admission as transient students. Such enrollment terminates at the end of one term and does not presuppose regular acceptance by any college or department of the University. A transient student must be in good standing with a minimum "C" (2.0) grade point average at the parent institution and at the last institution attended and must submit an official transcript to support the application for admission. Transient student applications must be received by the appropriate deadlines.

AUDIT STUDENTS

To audit a class, a student must file a regular application and be accepted as a degree-seeking or non degree-seeking student, obtain a form in the Records Office, and take it to his/her instructor for approval. The student must take the signed form to the "Help" table at walk-by registration during the last hour of regular registration or at any time during the add/drop period. A student must be registered for at least one course, either for credit or audit, by the end of regular registration or a late fee will be assessed if registration takes place thereafter.

Students registering for credit during regular or late registration, or during add/drop, may not change to audit status, but must remain in the course or withdraw through normal withdrawal procedures.

NON DEGREE-SEEKING STUDENTS

This classification allows qualified students to enroll in selected courses at the University without satisfying requirements for admission to degree-seeking status. Successful completion of courses while in this classification does not necessarily provide a basis for regular admission at a later date. Non degree-seeking status is granted in exceptional cases only, and will usually be reviewed by the Admissions and Standards Committee.

The following regulations will apply to non degree-seeking students:

1. Students are required to provide evidence of their educational qualifications for attending classes in order to meet the intent of this enrollment classification.

2. Non degree-seeking students are subject to the same rules and regulations as degree-seeking students.

3. Registration is permitted on a space-available basis. Students should consult the registration calendar in the Schedule of Classes or contact the Admissions Office for the appropriate registration time.

4. A maximum of 15 undergraduate baccalaureate semester hours earned as a non degree-seeking student may be applied toward a degree if a non degree-seeking student is later accepted as a baccalaureate student.

5. An applicant who has been denied admission or who has been disqualified or excluded may not register as a non degree-seeking student.

6. International students may not register as non degree-seeking since immigration regulations prevent foreign nationals from enrolling without admission to a degree or certificate program.

TRANSCRIPT REQUESTS

Transcripts of a student's UCF academic record may be requested by the student through the Office of the Registrar. A student's academic record can be released only upon written authorization by the student. Include in the request the full name and social security number. Indicate names and complete addresses to whom transcripts are to be sent. If grades or degree statements for the current term are needed, indicate that the transcript request is to be held until the final semester reports are posted. The first three transcripts are provided at no cost to the student. For additional transcripts, there is a charge of $2.00 each. The check or money order should be made payable to: UCF. Cash payments can be accepted only by the Cashier’s Office (Monday 9-6:30; Tues-Fri 9-3:30). Students requesting transcripts may do so in person or by writing to: Transcript Request, Office of the Registrar, University of Central Florida, PO Box 160114. Orlando, FL 32816-0114.
SECOND BACHELOR'S DEGREE

Second Bachelor's Degree applications are made through the Admission Services Office or Registrar's Office.

A. Students who have never attended the University of Central Florida as degree seeking students must apply to the Admissions Services Office. Students would complete the regular undergraduate application form.

B. Students who have attended the University of Central Florida as a degree seeking student apply through the University Registrar's Office. These students complete the Readmission Application form.

SENIOR CITIZENS

Senior citizens who are Florida residents and who are 60 years old or over may enroll as audit students by completing the Senior Citizen Audit Form in the Registrar's Office. A Florida Residency Affidavit is required to establish Florida residency. A completed Student Health History must be filed prior to registration. All audit students register on a space available basis.

Dates for Senior Citizen registrations are found in the University Calendar and the Schedule of Classes. It is necessary to complete the required forms at the Enrollment and Academic Services Office (AD Bldg. 210) no later than the last day of Add/Drop for the term for which a senior citizen wishes to enroll as an audit student.
TUITION AND FEES

SCHEDULE OF FEES

A student's basic expenses at the University will be for registration and course related fees, room and board, textbooks, and miscellaneous items.

Required fees are established by the Board of Regents and the Florida State Legislature and are subject to change without notice. Fees are affected by residency status. Information on Florida residency for tuition purposes is on the following page.

All University fees must be paid at or before the end of the add/drop registration period. Tuition not paid by the payment deadline date for each term may result in late fees or class cancellation.

The following schedule applies to all University of Central Florida students:

General Fees and Costs
(All fees are subject to change without notice)

A. Application fee. Must be paid by U.S. check or money order (required with all applications for admission to the University and not refundable) ...........................................$20.00.

B. Registration Fees per semester for campus, centers, and continuing education courses. The student is assessed tuition for one credit hour, Florida Resident Tuition rate, at the level student is classified for zero hour registration.

Please note: 1994-1995 rates had not been determined at the time of this printing.

Proposed 1994-95 Fee Schedule

<table>
<thead>
<tr>
<th>Category</th>
<th>Florida Resident</th>
<th>Non-Florida Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U-Grad (0000-4999)</td>
<td>Graduate (5000-7999)</td>
</tr>
<tr>
<td></td>
<td>U-Grad (0000-4999)</td>
<td>Graduate (5000-7999)</td>
</tr>
<tr>
<td>Matriculation</td>
<td>$ 38.08</td>
<td>$ 193.71</td>
</tr>
<tr>
<td>Building Fee</td>
<td>2.32</td>
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</tr>
<tr>
<td>Capital Improvement Fee</td>
<td>2.44</td>
<td>2.44</td>
</tr>
<tr>
<td>Undergraduate Financial Aid Fee</td>
<td>1.90</td>
<td>9.68</td>
</tr>
<tr>
<td>Activity &amp; Service Fee</td>
<td>6.95</td>
<td>6.95</td>
</tr>
<tr>
<td>Athletic Fee (students taking 5 or more credit hours)</td>
<td>5.50</td>
<td>5.50</td>
</tr>
<tr>
<td><strong>Total per Hour</strong></td>
<td><strong>$ 57.19</strong></td>
<td><strong>$109.11</strong></td>
</tr>
</tbody>
</table>

Other Fees:

- Health Fee (per term — on campus only) 47.30 47.30 47.30 47.30
- Health Fee (summer term — on campus only) 35.20 35.20 35.20 35.20
- Mat & Sup Fee (approved courses only — varies per course) 2.00-15.00 2.00-15.00 2.00-15.00 2.00-15.00
- Late Registration Fee 50.00 50.00 50.00 50.00
- Late Payment Fee 50.00 50.00 50.00 50.00
- Returned Check Fee 20.00 or 5% 20.00 or 5% 20.00 or 5% 20.00 or 5%
  (whichever is greater) (whichever is greater) (whichever is greater) (whichever is greater)

*The athletic fee for students taking courses as area campuses and/or for 5 or less credit hours is $4.50 per hour.

C. Room and Board (Based on accommodations and meal plan selected)
- Residence Hall Rooms (per semester) ...........................................$925-$1480
- Board (meal plans, per semester) ...........................................$800-$950
- Charge for late housing payment ...........................................$50.00

D. Books and supplies (estimated) per semester ...........................................$300.00
E. Late Registration and Late Payment Fees
- A $50 late registration fee will be assessed all students who register during the late registration period and pay fees by the deadline.
- A $50 late payment fee will be assessed all students who pay fees after the deadline.
- Both a $50 late registration fee and a $50 late payment fee will be assessed all students who both register late and pay fees after the deadline. All payments accepted after drop cards are mailed, approximately the third week of classes, must be cash, cashier's check or money order.

F. Vehicle Registration (required of everyone operating a motor-powered vehicle on campus) per calendar year for full-time, part-time students, and courtesy students from other institutions. Student's fee...

G. Student Health Fee
Mandatory fee assessed to all students except those enrolled at area campuses, (Brevard CC, SOC, Daytona Beach CC) and exclusively in Continuing Education courses.
Fall & Spring Semesters... Lab fees/out-of-state fees...
Summer Semester...

H. Certificate of Participation Holder

I. I.D. Card replacement...

J. Course Related fees — fee per student on specific course(s)...

K. Return Check Charge
Service charge on all returned checks is $20.00 or 5%, whichever is greater, and results in the loss of check cashing privileges.

APPEALS
Students who wish to appeal a late registration, late payment, or return check service charge fee may make their appeal to the Appeals Committee by initiating a student petition (Form 41-561). This form can be obtained from Enrollment and Academic Services, Student Affairs, University Cashier, or the Student Accounts Section of Finance and Accounting. Students must submit their petitions to Student Accounts, Room 112, Administration Building, and may appear (not mandatory) before the committee.

CHECK CASHING
The University Bookstore cashes personal checks not exceeding $50.00. The University collects a $20.00 service fee, or five percent (5%) of the check amount, whichever is greater, for personal checks, drafts, or orders which are returned as uncollectible. Future check-cashing privileges may be denied.

PAST-DUE ACCOUNTS
All financial obligations to the University must be met if good standing is to be maintained. Failure to meet obligations can result in the withholding of grades and transcripts, and denial of registration and readmission to the University. The services of a professional collection agency and recourse to the courts may also be invoked if deemed necessary. All costs of collection, including attorney's fees, are borne by the debtor.

PAYMENT PROCEDURES
Payment may be made in the Cashier's Office, AD 108, from 8:30 a.m. to 6:30 p.m. on Monday, and 8:30 a.m. to 4:00 p.m., Tuesday through Friday. A photo ID (if paying by check) is required.
Payments (NO CASH) may be placed on the Cashier's night depository; INCLUDE SS# ON CHECK OR MONEY ORDER.
Payments mailed must be postmarked no later than the published deadline date in Fee Schedule. DO NOT SEND CASH.
Address Payment to:
University Cashier
University of Central Florida
P.O. Box 620000
Orlando, FL 32891-8449
Penalty for Late Payment is $50.00. Do not assume your registration will be cancelled if you do not pay fees or attend classes.

Payment guidelines for off-campus registration are contained on the off-campus registration form.

REFUND OF FEES

A refund of fees will be made under the following conditions upon presentation at the Student Accounts Office of a Certification of Withdrawal issued by the Registrar. No refunds will be made under this policy except upon proper application. Any debts to the University will be deducted up to the full amount of the refund.

A. A full refund when:
1. Any class is dropped before the end of the Add/Drop period.
2. Cancellation of the course by the University.
3. Student is denied admission to an offered course by the University for whatever reason.

B. Partial refund (25% of the total registration and non-resident fees paid less building and capital improvement fees):
1. Complete withdrawal from the University prior to the end of the fourth week of classes, during a 16- (or 17-) week semester or at the end of the first quarter of classes during a mini-semester or summer semester (rounded out to the end of the week in which the first quarter occur). Student must present withdrawal slip and request the refund from Student Accounts.

C. Refunds for exceptional circumstances at any time upon withdrawal for one or more courses.
1. Up to 100% of tuition and registration fees due to circumstances determined by the University to be exceptional, including but not limited to sickness, death, involuntary call to military service or administrative errors created by the University.

D. Pro rata refunds for first term at UCF students:
1. Between 60% and 90% of tuition and dorm charges for students who fully withdraw before 40% of the term has elapsed. Applies only to first term at UCF students. An administrative fee defined as the lesser of 5% of all charges or $100 will be deducted from the refund.

TUITION FEE WAIVERS FOR STATE OF FLORIDA EMPLOYEES

State employees, faculty and staff who utilize a tuition fee waiver for coursework (up to 6 credit hours) without payment of the registration fees must register on the day and time provided by the Registrar. Employees who register prior to the prescribed time and date will have an invalid fee waiver, and will be liable for all applicable fees on courses enrolled. It is the responsibility of the employee to register only on a space-available basis; and this is only during the prescribed time as indicated above by the Registrar. In addition, the tuition fee waiver cannot be used for courses which require increased costs. These courses include, but are not limited to: courses offered through the Center for Continuing Education, independent study, supervised research, supervised teaching lab, thesis hours, dissertation, internships, co-ops, practicums or applied, individualized instruction in music, art or dance, etc. State employees must pay all applicable course related fees.

TUITION FEE WAIVERS FOR SENIOR CITIZENS

Persons 60 years of age or older who meet Florida residency requirements may register to audit classes without payment of tuition and application fees. Registration is on a space available basis; see the current schedule of classes for dates and times. The tuition fee waiver cannot be used for courses which require increased costs (such as Thesis, Dissertation, Directed Individual Study).

A Florida Residency Affidavit is required in order to establish Florida residency. A completed Student Health History must be filed prior to registration. Inquiries should be directed to the Registrar’s Office, Administration Building, First Floor or Enrollment and Academic Services, Administration 210.
STATE TUITION EXEMPT PROGRAM (STEP)
Eligible members of the active Florida National Guard may receive a waiver of 50% of tuition and lab fees. Registration is on a space available basis only during the time designated by the Registrar.

FLORIDA PREPAID COLLEGE PLAN
For any student enrolled who has a Florida Prepaid College Plan, the University will automatically defer the portion of the tuition covered under the plan. The plan will pay $44.74 per credit hours (graduate or undergraduate level) for the 1993-94 academic year. The plan does not cover the Local Fees of $12.45 per hour, Health Fee of $47.30 per term, and Lab Fees of $2.00-$15.00 per lab class. The student is responsible for paying these remaining fees by the fee payment deadline. The Local Fees are reduced to $11.45 per hour for students registered for 5 credit hours or less and for area campus courses. IF YOU DO NOT WISH TO UTILIZE THE FLORIDA PREPAID COLLEGE PLAN, PLEASE NOTIFY THE STUDENT ACCOUNTS OFFICE, AD 112, BY THE FEE PAYMENT DEADLINE. NOTE: THESE FEES MAY CHANGE FOR THE 1994-1995 ACADEMIC YEAR.

FLORIDA RESIDENCY FOR TUITION PURPOSES
To qualify as a Florida Resident for tuition purposes, students must:
Be a U.S. Citizen, Resident Alien, Parolee, Cuban National, Vietnamese Refugee, or other refugee or asylee so designated by the U.S. Immigration and Naturalization Service, AND
Have established a legal residence in this state and maintained that legal residence for 12 months immediately prior to the term in which they are seeking Florida resident classification. The student residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incidental to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students, as defined by IRS regulations, a parent or guardian must qualify), AND
Submit the following documentation (or in the case of a dependent student, the parent must submit documentation) prior to the last day of registration for the term for which resident status is sought:
- Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which resident status is sought). The following documents will be considered in determining legal residence:
  A. Declaration of Domicile.
  B. Proof of purchase of a home in Florida in which the student resides.
  C. Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment records).
- Documentation establishing bona fide domicile in Florida which is not temporary or merely incidental to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered as conclusive evidence of domicile:
  A. Declaration of Domicile.
  B. Florida voter registration.
  C. Florida vehicle registration.
  D. Florida driver license.
  E. Proof of real property ownership in Florida (e.g., deed, tax receipts).
  F. A letter on company letterhead from an employer verifying permanent employment in Florida for the 12 consecutive months before classes begin.
  G. Proof of membership in or affiliation with community or state organizations or significant connections to the State.
  H. Proof of former domicile in Florida and maintenance of significant connections while absent.
  I. Proof of reliance upon Florida sources of support.
  J. Proof of admission to a licensed practicing profession in Florida.
  K. Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.
• No contrary evidence establishing residence elsewhere.
• Documentation of dependent/independent status (notarized copy of most recent IRS tax return).

OR

Become a legal resident and be married to a person who has been a legal resident for the required 12-month period,

OR

Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent,

OR

Be a member of the full-time instructional or administrative staff of a state public school, community college or university in Florida, a spouse or dependent,

OR

Be a dependent and have lived five years with an adult relative who has established legal residence in Florida,

AND

File a notarized residence affidavit with the Admissions Office.

The Admissions Office reserves the right to require additional documentation as seen necessary to accurately determine the resident status of any student.
STUDENT FINANCIAL ASSISTANCE

The primary role of this office at the University of Central Florida is to provide financial assistance to students and families, allowing them to participate fully in the total educational experience. We encourage all students to apply for financial assistance by completing the Free Application for Federal Student Aid (FAFSA).

The following Financial Assistance policies and procedures are based upon federal, state and University regulations current for the 1994-95 academic year. Regulations are subject to change at any time.

DETERMINING ELIGIBILITY

In order to qualify for federal and state financial aid programs, a student must be a citizen or permanent resident of the United States, the Mariana Islands, or the Pacific Trust Territories. Some financial aid programs are available to part-time students; generally at least 6 credit hours enrollment per term is required.

The Student Financial Assistance office encourages all such students to apply for financial aid and to begin the process early. There are many grant, loan, and employment programs available. Almost all programs require the determination of financial need.

Financial need is calculated by a Federal processor who uses a standardized formula: financial need equals the cost of education (specific to the school to be attended) minus the expected family contribution (specific to each applicant) and minus any Veteran's Educational Benefits or other expected resources available. Students and/or parents provide detailed financial information on a Free Application For Student Aid (FAFSA) which generates a need analysis form. The results are forwarded to the UCF Student Financial Assistance office by the federal processor.

MORE SPECIFIC ELIGIBILITY REQUIREMENTS ARE LISTED BELOW:

The applicant must have a high school degree and must not be enrolled in an elementary or secondary school.

The applicant must be admitted as a degree-seeking student at UCF in an eligible program. The applicant must be a U.S. citizen or an eligible non-citizen (e.g. resident alien). Eligible non-citizens include I-151, I-551 and I-688 cardholders as well as some I-94 classifications.

The applicant must be maintaining Satisfactory Academic Progress toward his/her degree. See the Satisfactory Academic Progress Requirements.

The applicant must not be in default on any Federal Student Loan and must not owe a repayment on any grant program. The applicant must be registered with Selective Service (if applicable). The applicant must sign a Statement of Educational Purpose.

The applicant must not have received Federal loans in excess of the established annual or aggregate limits. The applicant must show a financial need as computed on the FAFSA (for need based programs).

The applicant must meet minimum hours of enrollment and other program-specific criteria. The student who fails to pass CLAST must enroll in at least one course for credit each term which is related to the acquisition of skills to meet the minimum State Board of Education standards regardless of the number of subtests failed. In addition, the student must register to retake the CLAST. This requirement begins after the student has completed 60 semester hours of academic credit. See also: ROTC scholarship opportunities.

UCF APPLICATION DEADLINES

Federal Pell Grants and Federal Stafford Loans are available on a year-round basis. Students may apply for financial aid in advance of any term and receive aid from these programs if eligible.

To be considered for the full range of aid available for the academic year (beginning with the Fall Term), the need analysis report must be received from the federal processor by March 1 of the preceding Spring.
Incoming students should not wait to be admitted to UCF before applying for financial aid. All students must **reapply yearly** for financial aid.

**APPLICATION PROCEDURES**

The following steps can take 4 to 6 weeks to complete. Students should apply well in advance of the **March 1** deadline of the year for which aid is being requested. Students who wish to enter UCF in Spring Term must apply by the **March 1** deadline of the preceding spring in order to be considered for the maximum aid available.

1. **File a Free Application for Federal Student Aid.**
   UCF requires that you complete the Free Application for Federal Student Aid (FAFSA).
   *IMPORTANT:* The results of your FAFSA must be in our office by **March 1** for the next Fall and Spring semesters, to meet our priority deadline, so that you may be considered for all aid available.
   Read the instruction booklet carefully as you fill out the form. Errors and omissions can prevent you from receiving aid for which you could be eligible. **Keep copies of all documents filed.**
   Follow-up promptly on all corrections to your FAFSA. If your record is "rejected in analysis" by the federal processor, be sure to provide them with the information they request as soon as possible. Processing of your file will be held up until corrections are made.

2. **Request Financial Aid Transcripts** (in addition to academic transcripts) from every post-secondary institution you have ever attended, **whether or not you received any financial aid.**
   To request financial aid transcripts, provide the school with your SSN and the name under which you attended that school. Ask them to make sure your SSN is on the transcript they send to UCF. Allow 2 to 4 weeks for processing. If you are enrolled at another institution at the time you are involved in the UCF application process, wait until you have completed that term of enrollment **before** requesting the financial aid transcript.

3. **Follow-Through.**
   Your application will not be complete until all documents requested have been filed and reviewed in our office.
   Whenever you receive financial aid correspondence, **review** it thoroughly and **follow directions promptly.** Delays can be frustrating, as well as costly.

4. **Verification.**
   Federal regulations require that some students verify the information submitted on their applications. If selected for verification, you will be asked to provide additional information (such as copies of tax return forms, documentation of household size, untaxed income, etc.). It is not unusual for additional documents to be requested after the initial review of the file. Prompt response to requests for additional documentation will expedite completion of this process. Financial aid cannot be processed or received until verification is complete and all necessary corrections have been made.

5. **Professional Judgment.**
   Contact the Student Financial Assistance office if you experience a circumstance that may affect your financial situation.

**HELPFUL TIPS:**

- Make a copy of tax return forms before submission to IRS.
- Start a folder **NOW** to save financial aid information and photocopies of all documents filed and received.
- Include student’s name and SS# on all documents submitted to Student Financial Assistance.
- Maintain a current address in the **REGISTRAR'S OFFICE;** all financial aid correspondence is mailed to that address.
- Complete all items necessary to apply for both a Federal Pell Grant and a Federal Stafford Loan, even if it doesn’t seem advantageous at the time. The law requires that students be considered for a grant before a loan is offered; choosing a lender now does not obligate the student to process a loan, but will make it easier if additional funds are needed.
- If you have extenuating circumstances or run into major problems at anytime, call our appointment line, (407-823-5285).
TRANSFER STUDENTS
The UCF Student Financial Assistance office must have on file a Financial Aid Transcript from every post-secondary school ever attended, whether or not financial aid was received. If you are eligible to receive aid at another institution for the academic year in question, please be aware that the only transferable programs are the Federal Pell Grant and the Florida Student Assistance Grant (FSAG).

To apply for financial aid at UCF, complete all the application procedures listed with one exception. If a need analysis for the year in question has already been filed, the student need only request that the processor forward a copy to UCF.

To transfer the remainder of a Federal Pell Grant, students should request the need analysis processor to send a duplicate set of their Student Aid Reports (SAR's) to them. These must be submitted to the UCF Student Financial Assistance office once the student has received them.

To transfer the remainder of an FSAG, send a copy of the state award letter and UCF's name and address to: State of Florida, Office of Student Financial Assistance, Department of Education Center, Tallahassee, FL 32399. Please do this before their stated deadline.

DUAL ENROLLMENT
Students who have been approved to take classes at another institution will have those hours counted toward meeting financial aid requirements at UCF by:

Submitting to the Student Financial Assistance office a copy of a completed UCF Transient Student form with all required signatures. This will confirm that the hours will be accepted by UCF toward your degree.

Submit a copy of your registration form and/or invoice confirming that you actually enrolled for the hours appearing on your Transient Student form.

Dual enrolled students must make arrangements for paying tuition and fees at the visited school, since there is no deferral mechanism. In addition, it is the student's responsibility to assure that the visited school promptly furnishes UCF with academic transcripts, confirming that the attempted hours are completed. This will help avoid academic progress problems. Keep in mind, if you expect to receive funds under any of the Federal Loan Programs, you must enroll for a minimum of six hours at UCF to meet eligibility requirements.

Also, please keep in mind that you may not receive financial aid from two institutions at the same time. You must decide which of the two institutions is your primary school and apply for aid there. Students will sometimes be paid aid at both schools if the schools are not aware of the dual application; however, a monitoring system has been put into place at the federal level to identify these students. This will result in a mandatory repayment back to one of the two schools for the overpayment.

INDEPENDENT STUDENT STATUS
The financial resources of parents/guardians do not have to be included in the determination of student's financial need if the student is:

• 24 years of age or older as of the award year
• an orphan or ward of the court
• a veteran
• legally responsible for dependents other than a spouse
• married
• accepted into a Graduate/Professional Program

UCF FINANCIAL ASSISTANCE PROGRAMS
If determined eligible, you will receive an award letter offering you a financial aid package composed of one or more of the following programs. Your admission to UCF must be finalized, you must be classified as Degree-Seeking, the verification process must be completed before a financial aid award will be disbursed and you must be meeting the standards for Satisfactory Academic Progress. Other loan and employment programs not based on need are provided below.

Your awards will be based upon: your financial need (as determined by a standardized formula applied to data provided on your applications), the amount of funds available to UCF, the number of UCF students who qualify for aid, as well as the date you complete the
application process. The amounts listed on your award letter will be estimates based on full-time registration.

Check the chart below to see in how many hours you must enroll for each semester in order to receive an award from each program.

<table>
<thead>
<tr>
<th>Program</th>
<th>Priority Deadline</th>
<th>Minimum Credit Hrs. Required</th>
<th>Available Year</th>
<th>Available to Graduate Students</th>
<th>Second Undergraduate Degree Seeking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Pell Grant</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>You must be considered for a Federal Pell Grant before other forms of aid will be offered; covers a maximum of two full-time semesters a year.</td>
<td>March 1</td>
<td>12</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Federal SEOG (Supplemental Educational Opportunity Grant)</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>FSAG (Florida Student Assistance Grants)</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Read State information sheet, available from Student Financial Assistance, for residency requirements and application procedures; must maintain 2.0 GPA</td>
<td>May 1</td>
<td>12</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Federal College Work Study</strong></td>
<td>March 1</td>
<td>12</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>On campus jobs; award earned as hourly wage. Not available to post-baccalaureate students.</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>CCWEP (College Career Work Experience Program)</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Off campus jobs; students paid an hourly wage</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Federal Stafford Loan Program, repayment may be deferred. Loan amounts vary, as well as interest rates and repayment options</strong></td>
<td>March 1</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Federal Perkins Loans</strong> are currently made at 5% interest rate; loans deferred until 6 or 9 months after you graduate or drop below 6 hours. Not available to post-baccalaureate students.</td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Scholarships</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>There is a broad range of scholarships available through federal, state, institutional, and private sources. Each has different eligibility criteria. Check with the Scholarship Office for more information.</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Federal Unsubsidized Stafford Loans</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>These loans operate under the same terms as regular Federal Stafford Loans except that financial need is not necessary. In addition, the student is responsible for the payment of interest as it accrues, (alternatively the interest can be capitalized into the loan balance). This loan now replaces the Supplemental Loan for Students (SLS) previously available to independent students.</td>
<td>March 1</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Federal Parent Loans to Undergraduate Students (PLUS)</strong> These are loans which parents take out on behalf of their children (student must be dependent for financial aid purposes).</td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>LOANS</strong></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Federal Family Educational Loans</strong> are made through private lenders. Students must be enrolled for a minimum of 6 credit hours at UCF at the time of disbursement to receive a loan check. First-time borrowers at UCF must attend an Entrance Interview before a loan check will be released to them. The times and location of Entrance interviews will be posted. Exit interviews are required upon graduation, or when enrollment becomes less than one-half time (6 credit hours) at UCF. Payment is deferred until students graduate or drop below 6 hours enrollment at UCF. Once eligibility has been determined by a need analysis, students must request a Loan by the dates printed below so that processing can be completed in time to receive funds during the term indicated.</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>October 15 — Fall Term Loan</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>February 15 — Spring Term Loan</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>June 15 — Summer Term Loan</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
EMPLOYMENT

Federal College Work Study jobs are awarded as part of a student's financial aid package if need so indicates: a minimum of 6 hours enrollment is required. Jobs are on-campus and efforts are made to match job assignments with the student's academic program. Awards are paid as an hourly wage.

The Florida College Career Work Experience Program provides off-campus jobs related to the student's major to help fill unmet financial need established by a current need analysis. Six hours enrollment is necessary. This program is administered by the Office of Cooperative Education, (407) 823-2667.

Co-operative Education (CO-OP) jobs related to students' educational goals are available off-campus and are not based on need. Contact the office of Cooperative Education, (407) 823-2667.

OPS (Other Personnel Services) jobs are available on-campus and are not related to financial need. Application is made directly to the Department advertising the position.

OTHER SERVICES

UCF Emergency Short Term Loans are available to currently enrolled students. Loans are granted at the beginning of the semester for books and emergencies. This is not for the payment of tuition and fees. A $5.00 non-refundable service charge will be assessed for processing the loan. This service charge, like other debts owed the University, will be deducted at the time of check disbursement. If the loan is cancelled, or not picked up, the $5.00 service charge still must be paid. The specific repayment date of the loan is noted on the loan contract.

Food Service Loans are available to students who have already been awarded sufficient financial assistance to cover all debts owed the University and who live on campus. Food Service Loans are processed by Student Financial Assistance. A $5.00 non-refundable service charge will be assessed at the time of processing.

SCHOOL COSTS

Cost of Attendance 1994-95 (Full Time)

<table>
<thead>
<tr>
<th></th>
<th>OFF-CAMPUS</th>
<th>ON-CAMPUS</th>
<th>WITH-PARENT/RELATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition/Fees</td>
<td>$1,740</td>
<td>$1,740</td>
<td>$1,740</td>
</tr>
<tr>
<td>Books/Supplies</td>
<td>690</td>
<td>690</td>
<td>690</td>
</tr>
<tr>
<td>Room/Board*</td>
<td>5,240</td>
<td>4,220</td>
<td>1,660</td>
</tr>
<tr>
<td>Personal Exp.</td>
<td>1,710</td>
<td>1,710</td>
<td>1,710</td>
</tr>
<tr>
<td>Transportation</td>
<td>1,720</td>
<td>400</td>
<td>1,720</td>
</tr>
<tr>
<td>Total (In State)</td>
<td>$11,100</td>
<td>$8,760</td>
<td>$7,520</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out-Of-State Fee</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
</tr>
<tr>
<td>Total (O/S)</td>
<td>$15,900</td>
<td>$13,560</td>
<td>$12,320</td>
</tr>
</tbody>
</table>

DEFERRALS OF TUITION AND FEES

Financial assistance awards will normally result in the student being granted a deferral of tuition and fee payments. This process occurs automatically if the student has enrolled for sufficient hours, is meeting all general eligibility requirements, and is making Satisfactory Academic Progress. This program makes up for the time lag that normally occurs between the date that tuition and fees are due and the date on which financial aid disbursements are made which is normally three (3) to four (4) weeks after the semester begins.

1. Your fee invoice (class schedule) reflects the dollar amount of your deferral. If the total amount of your tuition and fees exceeds the amount of your deferral, the difference must be paid by the due date on your fee invoice (class schedule). Different financial assistance programs require different hours of enrollment for eligibility. Make sure you are registered for the required number of hours. Students must register for at least 12 hours to receive a FSAG and FSEOG; 6 hours to receive a Federal Pell, Federal Stafford, and Federal Perkins award. (Note: You must have 6 hours at UCF for the Federal Stafford loans.)
2. The following programs are not included in the Automatic Deferral Program: work study programs, third party deferrals, and other waivers, and direct-pay scholarships.

3. Dual enrolled hours (transient hours) taken at another institution are not considered for automatic deferral purposes.

**NOTE:** Both Subsidized and Unsubsidized Federal Stafford Loans will result in a deferral in the amount of 92% of the award, since origination fees are taken out by the lender and the guarantee agent in the amount of 8%. Automatic deferments can work against students who believe they will be administratively dropped from classes by not paying tuition. An active deferment will keep this from happening. It is the responsibility of the student who is on financial aid to properly drop classes prior to the end of the add/drop period to avoid becoming fee liable. Additionally, under any circumstance where previously estimated financial aid cannot be paid and a deferment must be cancelled, the student is liable for the cost of tuition, whether or not he/she attended classes.

**FUND DISBURSEMENTS**

Financial assistance disbursements are not available at the time of registration. Checks, including Federal Stafford and Short Term Loan checks, will be disbursed after the first day of classes. Therefore, students should make themselves aware of the Automatic Deferment policies and procedures and be prepared to use personal savings or a UCF Short Term Loan for books and other expenses anticipated.

Financial assistance funds for most programs are mailed directly to the student by the UCF Office of Student Accounts. Initial disbursements should take place after the third week of each semester. Most grant and scholarship checks go through a "net checking" process in which debts owed to the University are deducted from the available assistance. Federal Perkins Loan checks must be picked up at the Cashier's Office upon notification by Student Accounts.

Federal Stafford checks are mailed to the student without any deduction for debts owed to the University. It is the student's responsibility to pay outstanding debts to the school within 21 days of the date of the transmittal letter to avoid a late charge. You must be enrolled in at least 6 credit hours at UCF at the time of disbursement of each Federal Stafford Loan check. Borrowers under the Federal Stafford program who have not yet successfully completed their first year of undergraduate study cannot receive their initial checks until 30 days into the semester.

**NOTE:** The verification process must be complete before financial assistance funds will be released. Students on Financial Assistance Cancellation will not receive funds.

**Federal Stafford Loans**

Your student loan check(s) will be mailed to the University of Central Florida after your lender has received a completed application/promissory note. We strongly suggest that you follow-up with the lender if you have not received your loan check within 20 days of mailing your promissory note. Please note to estimate when your Federal Student Loan check will be mailed, refer to the Disclosure Statement from your lender, it indicates a date the lender intends to send the check to UCF. If that date is before the semester starts, please allow 10 working days from the first day of classes before inquiring about your check. If the date is after the semester begins, please allow 10 working days from the disbursement date for UCF processing. LOAN CHECKS WILL BE DISBURSED AFTER THE BEGINNING OF CLASSES.

1. First-time borrowers at UCF: Must attend an Entrance Interview before a check can be disbursed. The time and location of Entrance Interviews will be posted.
2. Two-term loans: To receive the second half of a two-term loan, you must complete at least 6 hours of UCF during the first term. If you did not complete the required 6 hours or if you did not accept your first term loan disbursement, you cannot receive the second term disbursement. You must cancel the original loan request and reapply for a new loan through Student Financial Assistance.
3. One-term loans: Disbursement of a one-term loan will be divided into two payments. You must maintain eligibility throughout the term to be eligible for each disbursement. The second disbursement cannot be made until at least 1/2 of the term is over.
4. Students who have not successfully completed their first year of undergraduate study (e.g., First Year Freshman = 1F) will not receive their checks until 30 days after classes have begun.
5. Summer Term: You must have a minimum of 6 hours to receive assistance. If your hours include Summer B hours are needed to meet the minimum requirements, funds will not be disbursed until Summer B term.

EXIT INTERVIEWS ARE REQUIRED UPON GRADUATION OR DEPARTURE FROM UCF.
REMEMBER: You must maintain your proper address with the Registrar’s Office.

AWARD LETTERS
In the Spring of each year, most students will be notified of the estimated awards they should receive in the coming school year. Award notices may not go out to students who were selected for verification, but have not completed that process, since verification corrections often alter award eligibility. Notification will also not go out to students who have been cancelled from financial assistance due to a problem with academic progress. Award letters which are sent out anytime prior to the beginning of the semester will disclose estimated awards based on an assumption of full time enrollment. If the student enrolls for less than 12 hours, some estimated awards may change. In addition, new information brought to the attention of our office (such as third party benefits, waivers or deferrals, prepaid tuition plans, or newly awarded scholarships) can cause a reduction in the amount of previously estimated need-based assistance.

Award letters are also sent out to the students who miss the application priority deadline once there is enough information on file to make an awarding decision. Verification students will receive their award notification once that process is complete. Regardless of when the notification is sent out, it will be accompanied by a comprehensive information insert. Students should read this insert carefully and follow the instructions.

All students are required to return signed appropriate documents to our office within 20 days of receipt to acknowledge acceptance of the award. Please note that although an estimated Federal Stafford loan may appear on the award letter to notify students that they are eligible for that form of assistance, a student must still apply for the loan by completing the requested information.

REFUND AND REPAYMENT POLICIES
Students should be aware that if they withdraw from the University after having received financial assistance, they may have to repay a portion of that assistance. Students who received Federal Stafford Loans should also know that the Student Financial Assistance office is required to notify lenders of student withdrawals.

Refunds
Financial assistance recipients planning to withdraw from UCF should first consult the University’s Withdrawal Policy published under Academic Policies and Procedures in the UCF Catalog. If the student is due a refund according to this policy, the financial assistance program(s) from which the student received assistance will first be reimbursed. Any remaining balance after refunding all appropriate assistance programs will be refunded to the student. In no case will the amount refunded to the assistance program exceed the amount disbursed.

Repayment
A portion of the financial assistance disbursed to the student for non-instructional costs may have to be repaid by the student to the University. The amount of repayment due from the student will be based upon the schedule printed below.

A student who owes a financial assistance repayment will not be allowed to receive further financial aid funds until the repayment is paid in full. In addition, academic and financial assistance transcripts will be withheld until repayment is complete.
### Fall and Spring Terms

<table>
<thead>
<tr>
<th>Week of withdrawal</th>
<th>Amount of repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>100% of total aid* received</td>
</tr>
<tr>
<td>2nd or 3rd week</td>
<td>75% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>4th or 5th week</td>
<td>50% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>6th or 7th week</td>
<td>25% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>8th week or after</td>
<td>No repayment due</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week of withdrawal</th>
<th>Amount of repayment</th>
</tr>
</thead>
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<tr>
<td>1st week</td>
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</tr>
<tr>
<td>2nd week</td>
<td>75% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>3rd week</td>
<td>50% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>4th week or later</td>
<td>No repayment due</td>
</tr>
</tbody>
</table>

### Summer A, B and C Terms

<table>
<thead>
<tr>
<th>Amount of repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% of total aid* received</td>
</tr>
<tr>
<td>75% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>50% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>No repayment due</td>
</tr>
</tbody>
</table>

*Total aid excludes monies received from the following programs: Federal College Work Study, Federal Stafford Loans, and Federal Parent Loans for Students.

Students should schedule an appointment with or come to the Student Financial Assistance office prior to withdrawing from classes to confirm the consequences of that withdrawal. The appointment number is (407) 823-5927.

### CONDITIONS AND REQUIREMENTS FOR RECEIVING ASSISTANCE

- You must enroll for a minimum of six semester hours. Twelve hours are required for some programs including FSAG and most Scholarships. However, Pell Grants will be paid on less than six hours of enrollment.
- Upper-level students must pass the CLAST in order to receive State assistance.
- You must maintain UCF’s standards for Satisfactory Academic Progress (printed on a following page).
- Your signed award letter is an agreement which requires you to inform us of any additional assistance you receive beyond that listed on your award letter. Any subsequent awards or income may necessitate a revision of your financial assistance award.
- You must not be in default on any educational loan or owe repayment on a grant at this or any other institution.
- You must provide all information requested for the completion of your file. If selected, verification must be completed prior to the receipt of any funds or certification of a Federal Stafford Loan.
- You must supply a financial aid transcript from all previously attended post-secondary institutions, whether or not you received any financial assistance.
- You must notify the Student Financial Assistance office of any changes in your employment, housing, marital, or financial status from that listed on your assistance application.
- You must reapply yearly for financial assistance.

### SATISFACTORY ACADEMIC PROGRESS POLICY

Federal regulations require the University to establish standards of Satisfactory Academic Progress as a general eligibility requirement for financial assistance. A student must maintain Satisfactory Academic Progress in a course of study regardless of whether the student was a previous recipient of financial aid. Students who are unclear about these policies should schedule an appointment. The factors required to measure satisfactory progress are as follows:
GPA

UNDERGRADUATE STANDARDS

Freshmen/Sophomore
No minimum overall GPA required as long as the student is not disqualified/excluded by the Admissions office. (See UCF Catalog under academic policies.)

Junior/Senior/PostBaccalaureate
Minimum overall GPA of 2.0 is required and must not be disqualified or excluded by the Admissions office.

GRADUATE STANDARDS

A GPA of at least 3.0 is required for those courses specified in the graduate student’s program. (Please see the Academic Standards section of the UCF Graduate Student Catalog.)

HOURS COMPLETED

Students MUST complete a specified number of credits as determined by their enrollment status (see below chart):

<table>
<thead>
<tr>
<th>HOURS ENROLLED</th>
<th>MINIMUM HOURS REQUIRED</th>
<th>HOURS ENROLLED</th>
<th>MINIMUM HOURS REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>12 or more</td>
<td>10</td>
<td>9 or more</td>
</tr>
<tr>
<td>¾ time</td>
<td>9, 10, 11</td>
<td>8</td>
<td>6, 7, 8</td>
</tr>
<tr>
<td>½ time</td>
<td>6, 7, 8</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

Hours completed will be monitored at the end of the spring term of each academic year. Successful completion of a class is defined as having earned a grade of A, B, C, D or S. Unsuccessful completion is defined as having earned a grade of F, I, W, X, N, or U.

TIME LIMIT

Undergraduate students MUST obtain their degree within 12 full-time terms or the equivalent thereof for ¾ time, ½ time, and less than ½ time students. Transfer students: entering UCF with either an AA degree or 70 or more hours MUST complete their degree within 6 full-time terms or the equivalent thereof.

Graduate students will be given 5 full-time terms (or the equivalent thereof) to obtain their Master’s Degree. Doctoral candidates may have 5 additional full-time terms to earn their Ph.D.

CANCELLATIONS

Time Limit: Students who are unable to graduate within the required number of terms will be cancelled at the end of the term.

Hours completed: Students who are unable to complete the required number of hours for Previous Summer, Fall and Spring will be cancelled at the end of the Spring term of each academic year.

GPA: Junior and Senior level students with an overall GPA of less than 2.0 will be placed on Cancellation at the end of each term.

Disqualified or Excluded: Students who are Disqualified or Excluded by the Admissions Office will be placed on Financial Aid Cancellation status.

Failed Probation: Students who were placed on probation and were not successful in meeting probation requirements described below will be placed on cancellation at the end of that term.

PROBATIONS

Students will be placed on probation status for the next term of enrollment for the following reasons:

- INITIAL PROBATION: Students who have been enrolled for one term only (first term at UCF) by the end of the spring term of each academic year and did not complete the minimum required hours for that term.

- REINSTATEMENT: As a result of a committee review.
When students are placed on Probation, they must complete the minimum required hours for the next term of enrollment with a minimum term GPA of 2.0 to avoid cancellation of aid at the end of the Probationary term.

PROCEDURE FOR APPEALS

Warning — Students who do not appeal within the established deadline, may forfeit their right to appeal for that term of enrollment.

Any student who was placed on Financial Aid cancellation may appeal to the Financial Aid Review Committee. To appeal, the student must:
A) Complete the Satisfactory Academic Progress Appeal Form before the established deadline.
B) Submit acceptable documentation supporting the extenuating circumstances.

After a thorough evaluation of the written request and all documentation, the Financial Aid Review Committee will notify the student in writing, of its decision. Aid remains cancelled unless you receive written notification of reinstatement.

FINANCIAL ASSISTANCE FOR GRADUATE STUDENTS

There are several sources of financial assistance available to UCF graduate students. Federal Perkins and Federal Stafford loans and the Federal College Work Study Program described previously, require that financial need be established.

Out-of-State Tuition Waivers are offered by each college and the Office of Minority Student Services to non-Florida residents. Some colleges give priority to graduate students in making award selections.

Eligibility and application guidelines for Teaching or Research Assistantships and Graduate Assistant positions are established by the colleges or in some cases by departments, as are pay scales. To apply for an assistantship position, contact the Dean’s Office in the College of Business Administration or Education or the department’s graduate coordinator in the College of Arts and Sciences, Engineering, and Health and Professional Studies.

There are also scholarships available to graduate students. Please check the monthly scholarship listing posted on the bulletin board outside the Student Financial Assistance office.

Federal Perkins and Federal College Work Study are available only to students who are fully admitted into a Graduate Program. Post-Baccalaureate students are not eligible for these assistance programs.

STUDENT RIGHTS AND RESPONSIBILITIES

- Students have the right to full information about the financial aid programs available at UCF, our application procedures and deadlines, and the criteria used to determine a financial package.
- Students have the right to appeal decisions made by The Student Financial Assistance office.
- Students have the right to equitable treatment of their financial assistance applications. Although each student’s case is analyzed individually, eligibility standards are applied uniformly without regard to race, gender, religion, creed, national origin, or physical handicap.
- All students’ records are confidential.
- It is the student’s responsibility to review and understand all information and instructions, meet all deadlines, and provide all information and documentation accurately. Errors and omissions can cause delays and prevent students from receiving assistance. Misrepresentation is a violation of the law.
ACADEMIC BEHAVIOR STANDARDS

The University of Central Florida is committed to a policy of honesty in academic affairs. Examples of conduct for which students may be subject to academic and/or disciplinary penalties including expulsion are:

- Cheating whereby non-permissible written, visual or oral assistance including that obtained from another student is utilized on examinations, course assignments or projects. The unauthorized possession or use of examination or course related material may also constitute cheating.

- Plagiarism whereby another's work is deliberately used/or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials taken from another has plagiarized.

NOTE: A student who has assisted another in any of the aforementioned breach of standards shall be considered equally culpable.

In cases of cheating or plagiarism, the instructor may take appropriate academic action ranging from loss of credit for a specific assignment, examination or project to removal from the course with a grade of "F". Additionally, the instructor may request disciplinary action through the Dean of Students Office as outlined in The Golden Rule.

STUDENT CLASSIFICATIONS

Students will be classified by level, on the basis of semester hours satisfactorily earned:

- **Freshman:** Through 29 semester hours.
- **Sophomore:** 30-59 semester hours.
- **Junior:** 60-89 semester hours and have fulfilled CLAST and Golden Rule requirements.
- **Senior:** 90 or more semester hours, prior to completion of baccalaureate requirements.
- **Post-Baccalaureate:** Any student enrolled in courses, regardless of course level (except one working toward another baccalaureate degree), who has a baccalaureate degree but has not been admitted to a graduate program.
- **Graduate:** Any student enrolled in graduate courses who has been admitted to a graduate program.

Other student classifications:

- **Auditor:** A student registered for any credit course who is not seeking credit.
- **Co-op Student:** A student enrolled in the Cooperative Education Program remains a registered student during all off-campus assignment semesters. Furthermore, there is no lapse in continuity in the co-op school calendar: a co-op student is either on assignment or attending class during each school semester. (See Veterans' Benefits for co-ops.)
- **Special Student:** A student of demonstrated academic ability who does not meet the regular requirements for admission (Early Admission, non-degree-seeking, transient, and auditor).
- **Temporary:** A student who applied before the deadline and is permitted to register and attend class pending completion of the admission file.
- **Transient:** Students temporarily registered (for one semester) at the University of Central Florida with the approval of some other university or college where they are regularly enrolled, or a UCF student temporarily in attendance at another university or college, with the approval of UCF. A UCF student may not be enrolled as a transient student in another institution during the term in which the baccalaureate degree or the Associate of Arts degree is to be awarded.
Non-Degree-Seeking: A student earning credit, but not working on a degree program.
Provisional: A student entering from a regionally unaccredited high school, college, or university may be admitted on provisional status where appropriate. By obtaining a 2.0 GPA ("C" average) or better at the end of the first semester of attendance, the provisional status will be removed. Earning less than a "C" average the first term would result in disqualification.

SEMESTER HOURS DEFINED
The graduation credit value of each course of instruction is stated in terms of semester hours. A semester hour of credit represents one class hour of work (or two or more laboratory hours of work) per week for a semester.
Classes may be offered for a six-week period during the summer semester. During this shortened semester, two class hours of work (or four or more laboratory hours of work) per week are required to represent a semester hour of credit.

MAXIMUM COURSE LOAD
The University reserves the right to establish maximum course loads for students at any level. Course load limitations will be published in the term Class Schedule and made available prior to the beginning of the term.

GRADE SYSTEM
The University uses an alphabetic system to identify student grades and other actions regarding student progress or class attendance. This system, with a grade point equivalent per semester hour, is as follows:

Grades
A — Excellent ................................................................. 4 grade points
B — Good ................................................................. 3 grade points
C — Average .............................................................. 2 grade points
D — Passing ............................................................... 1 grade point
F — Failure ............................................................... 0 grade point

Other Actions
W — Withdrawn ............................................................ 0 grade point
WP — Withdrawn Passing .............................................. 0 grade point
WF — Withdrawn Failing ................................................ 0 grade point
WM — Medical Withdrawal ............................................ 0 grade point
I — Incomplete ............................................................ 0 grade point
X — Audit (no credit) ..................................................... 0 grade point
S — Satisfactory (with credit)/Satisfactory Progress (Research, Thesis, or Dissertation) ........................................ 0 grade point
U — Unsatisfactory (no credit) ......................................... 0 grade point
T — (followed by grade) .................................................... 0 grade point
— Subsequently repeated (no credit) ................................... 0 grade point
R — (followed by grade) .................................................... 0 grade point
— Repeated course (grade forgiveness)
N — No grade reported by professor ................................ 0 grade point

The grade point average (GPA) is the average number of grade points per semester hour attempted and is computed by dividing the total number of grade points assigned by the total number of semester hours attempted, less hours resulting from W, WP, and I grades. The grade point average for graduation requirement is 2.0 ("C") and will be computed on both the student’s total academic program and the UCF program.
The designation of "N" will be temporarily assigned by the Records Office only in the case when a grade has not been submitted by the faculty by the "grades due" deadline. The designator will be replaced by the earned letter grade at the earliest opportunity in the semester which immediately follows. The "N" designator may not be assigned by faculty.
A request for grade change will be considered only during the term immediately following the one in which the grade was assigned, except that grades assigned during the spring semester may be changed during either the following summer or fall terms. Academic Actions do not change when an incomplete grade is completed nor when a course is repeated. A change in a grade must be approved by the dean of the college. A grade will not be changed after a degree has been conferred.

ACADEMIC STANDING

All Academic Actions are shown on grade reports and transcripts. The action is generated due to course completion. Changing a course grade does not necessarily change academic action. An exception can be made when an error is committed and is so stated on the Change of Grade request form by the professor.

Semester Average
Grade Point Average on work attempted during any given semester.

UCF Average
Grade Point Average on all work attempted while in attendance at the University of Central Florida.

Overall Average
Grade Point Average on all work attempted since entering college, including work from all previously attended institutions.

Academic Warning
Some first-time-in-college applicants who do not meet University admission requirements may be admitted on Academic Warning. By obtaining a 2.0 GPA ("C" average) or better at the end of the first semester of attendance, Academic Warning will be removed. Earning less than a "C" average the first term will result in Academic Probation. A student may be on Academic Warning only once.

Academic Probation
Action taken when a Student’s UCF cumulative or overall GPA drops below 2.0. A student may also be admitted on Academic Probation. Academic Probation will continue until the current term, UCF cumulative, and overall GPA reach 2.0 or better.

Disqualified (First Suspension)
A student on Academic Probation is disqualified upon failure to achieve a 2.0 GPA during the subsequent semester. A student who is disqualified may not enroll at the University for two semesters following disqualification. Readmission after two semesters is not automatic. A disqualified student must submit an application for readmission supported by a letter indicating the reasons for previous academic difficulties and plans for achieving a GPA of 2.0 or better. The total record will be reviewed and action on readmission will be taken by the Director of Admissions. When the Director of Admissions can not make a favorable decision, cases will be referred to the Admissions and Standards Committee.

Exclusion (Second Suspension)
A student readmitted following disqualification who fails to achieve a 2.0 GPA is excluded from the University. Exclusion is most serious and readmission will not be considered prior to a minimum suspension period of one year.

Readmission
If a student has dropped out of the University for any reason, he or she must reapply on the appropriate form (see calendar for deadline).

First-time-in-college students may be admitted on Academic Warning (see above) or Academic Probation at the discretion of the Admissions Office or the Admissions and Standards Committee. Transfer students may be admitted on Academic Probation at the discretion of the Admissions Office or the Admissions and Standards Committee. Academic Probation is intended to inform students making unsatisfactory progress of their need to alter study habits and to seek additional counseling. Early recognition will indicate to the student the possible jeopardy to academic goals, and will also allow an opportunity to demonstrate acceptable performance.

EARNING CREDIT WHILE DISQUALIFIED OR EXCLUDED

Students disqualified or excluded while a Freshman or Sophomore who subsequently receive an A.A. degree with a "C" average (2.0 GPA) on all college work attempted from a
Florida public community college may be readmitted to the University with credit earned in accordance with standard University policies.

Students who attend other colleges or universities following disqualification will be classified as transfer students and their readmission will be based on their total educational record.

INCOMPLETE GRADE

A grade of "I" (incomplete) is assigned by the instructor when a student is unable to complete a course due to extenuating circumstances, and when all requirements can be completed in a short time following the end of the term. The student is responsible to arrange with the instructor for the completion of the incomplete grade by the deadline published in the Academic Calendar for the next term. If the incomplete is not changed by the established deadline, it may become a part of the student’s permanent record with no credit given for the class, or the instructor may assign a grade of “F”. An “I” can not be removed by Grade Forgiveness. Academic actions are not affected by the change of an “I”.

INSTRUCTORS PLEASE NOTE: A grade is assigned using the Change of Grade Form. After the form is signed by the Dean of the College offering the course, the Dean sends it to the Registrar’s Office.

SCHEDULE CHANGES — ADD/DROP POLICY

Add: A student may add a course during the official add/drop period (the first three to five days of each term, as listed in the academic calendar). After the add/drop period, no course may be added.

Drop: A student may drop a course during the official add/drop period. The fact that the student was enrolled in a class so dropped will not appear on the permanent record. For withdrawal after the add/drop period, the Withdrawal Policy must be consulted.

WITHDRAWAL POLICY

A student may withdraw from a class and receive the notation of “W” until the end of the eight week of any regular semester or until the midpoint of any summer term by completing a Course Withdrawal form available in the Office of Records and Registration, first floor of the Administration Building.

A student is never automatically withdrawn from a class for not attending, nor can an instructor withdraw a student from a class. Upon request, however, the instructor will provide the student with an assessment of the student’s performance in the course prior to the last day of withdrawal.

No withdrawal is permitted after the deadline except in extraordinary circumstances such as serious medical problems. Unsatisfactory academic performance is not an acceptable reason for withdrawal after the deadline. Students who need to petition for a late withdrawal should consult Enrollment and Academic Services, Administration Building, Room 210. At the time of the request an Assistant Dean from Enrollment and Academic Services will ascertain from the instructor whether the student was passing or failing the course. If the student was passing, a “WP” will be recorded on the student’s permanent record; if failing, a “WF” will be entered. Medical and late withdrawals are normally for all courses in the semester.

Students who seek withdrawal because they are ill must apply for the withdrawal no later than that term following the one from which the withdrawal is sought. Students seeking a late withdrawal because of medical conditions must follow the medical withdrawal procedure. The student’s physician provides the University physician with the appropriate medical information, using the forms available in the Office of Undergraduate Studies. The University physician evaluates this information and forwards a recommendation to Undergraduate Studies.

If a medical withdrawal is approved, a “WM” will be recorded for each course.

If a medical withdrawal is not approved, the request may be approved as a late withdrawal, and grades of “WP” or “WF” will be recorded.

A grade of “WF” will affect the calculation of the student’s grade point average (the procedure used for calculating is further defined in the paragraph titled “Grading System” earlier in this section).

If a student withdraws from a course while an alleged academically dishonest act is under consideration, and the case is not subsequently resolved in favor of the student, the University reserves the right to assign the appropriate grade for the course.
TRANSIENT ENROLLMENT AT OTHER INSTITUTIONS

A UCF degree-seeking student who wishes to earn credit at another college or university for transfer back into a degree program must obtain prior approval for specific courses from the Dean or Department Chair of his respective college. Approval of courses for the General Education Program should be obtained from Enrollment and Academic Services. Credit earned without this transient approval may not be accepted. Students who are taking courses in transient status during the term in which they expect to graduate and who have been approved by the procedures indicated above, must provide an official transcript to the Graduation Area of the Records Office no later than two weeks after commencement. It is the student's responsibility to request this transcript from the transient institution. Students, whose transcripts not received by the deadline date, may not be approved for graduation that semester. Transient forms are available in the college of the student's major. Transient credit cannot be used to reduce the last 30 semester hour residency requirement for a baccalaureate degree or the last 20 semester hour residency requirement for an Associate of Arts degree.

GRADE FORGIVENESS

Policy

Limits: Grade forgiveness is limited to two courses.
- Grade forgiveness can be used only for courses taken at UCF. Grade forgiveness is not retroactive, and therefore may not be used for a course repeated before Fall 1981.
- UCF does not honor grade forgiveness granted at other institutions unless it is part of an Associate of Arts degree transferred to UCF from a Florida public community college or university. Because of the two-course limit, a student who has used grade forgiveness twice at another institution, and has included those courses in the transfer of an Associate of Arts degree may not use grade forgiveness again at UCF.
- A course taken at UCF may not be repeated at another institution for forgiveness by UCF.
- Grade forgiveness may not be used twice for the same course.
- Registration for grade forgiveness must be completed by the end of the add/drop period in the term in which the course is repeated.

Exception: If a student who repeated a course at UCF before Fall 1981 did not use the previous forgiveness policy and wishes to repeat the course again to take advantage of the forgiveness policy, he or she may do so. In this case, the lower of the previous two grades will be forgiven. This special circumstances is the only one in which a student will be allowed to repeat a course more than once.

General Policy: All grades will remain on the student's official transcript. The original course grade will be marked with a "T" to indicate that the course has subsequently been repeated, and the repeat course grade will be marked with an "R." The original grade will not be computed in the grade point average except in a case in which the student withdraws from a course he or she is repeating or takes a grade of incomplete.

With prior approval of the dean of the college in which the course is offered, the student may substitute a course different from the original one if (1) the substitute course has been changed in prefix, number, hours, or title, but not in substance, or (2) the substitute course replaced a course no longer offered by UCF.

Grade forgiveness awarded for repeated courses will not retroactively alter any previous academic action. For example, a Probation or Disqualification status will not be removed from the records of the quarter or semester in which the student originally took the course. In addition, no academic records can be altered after a student graduates.

If it is determined that the student is ineligible for the forgiveness policy, neither a refund of fees nor automatic withdrawal from the course will be made.

Procedure

Students who wish to exercise Grade Forgiveness must complete the following steps before registering to repeat a course:

1. Complete a "Grade Forgiveness Request Form" from the Office of Records and Registration for each course to be repeated.
2. If the course is a substitution for the original one (see above), secure the signature of the dean of the college in which the course is offered.
3. Turn the completed form in to the Office of Records and Registration no later than the last day of add/drop. No petitions will be accepted after the deadline.

Any questions about Grade Forgiveness should be directed to Enrollment and Academic Services, AD 210, Phone (407) 823-2691.

ACADEMIC HONORS
1. President’s Honor Roll Certificate
The President’s Honor Roll Certificate is awarded in recognition of scholastic honors to regular undergraduate students who register for and complete 12 or more hours, excluding pass-fail coursework, and maintain a 4.0 GPA with no incomplete or “U” grades for the given term or who complete 15 semester hours during any two consecutive terms at UCF with no more than 11 hours in any one term, excluding pass-fail work, and maintain a 4.0 GPA for the 2 terms.

Hours utilized in the awarding of a President’s Honor Roll Certificate may not be utilized in the determination of a subsequent certificate.

2. Dean’s List
The Dean’s List is compiled in recognition of scholastic honors for students who earn a 3.4 GPA with no grade less than “C” and no incomplete or “U” grades during a term. To be eligible for the Dean’s list students must register for and complete a minimum of 12 semester hours in a Fall or Spring semester or 9 semester hours in a Summer semester.

3. Baccalaureate Honors
The University shall confer baccalaureate honors recognition on those students who have completed a minimum of 48 semester hours at UCF and who:
A. Attain an overall grade point average which is in the upper 10% of the range established by all students graduating in the same college during the previous two years
B. Attain at least a 3.2 overall grade point average
C. Honors awarded will be
   1. Summa Cum Laude for those students in the upper 2.5%
   2. Magna Cum Laude for those students in the upper 5%, but not in the upper 2.5%
   3. Cum Laude for those students in the upper 10%, but not in the upper 5%

Since records for the semester of graduation are incomplete at the time of graduation, that term is excluded in determining recognition in the commencement bulletin and at graduation. Identification of these students at graduation is therefore presumptive of honors and not conclusive since final term grades may result in changes in relative rankings.

TIME-SHORTENED DEGREE OPPORTUNITIES
The University of Central Florida provides a number of options by which students may shorten the time required to complete the baccalaureate degree. These options permit the University to recognize high levels of academic achievement and acquisition of knowledge prior to or during attendance at the University. Procedures which may be used include the Early Admission Program, the College Level Examination Program (CLEP), the Advanced Placement Program (AP), the International Baccalaureate, and University Course Credit by Examination.

Early Admission Program
Students who have demonstrated exceptional academic ability may be permitted to enroll as students at the University of Central Florida any time after completion of their junior year in high school. To be considered for Fall Semester Early Admission, applicants must have:
- Superior test scores (SAT 1100 or above, ACT 27 or above).
- “A”-“B” grades in high school.
- A recommendation from the student’s high school counselor.
- A letter of permission from parents or guardian.
- A campus interview to ascertain the student’s maturity and ability to adjust to collegiate responsibilities.

Qualified students may enroll dually on a part-time basis, taking one or two courses while completing their high school programs. An interview and letters of recommendation from parents and principal are required in addition to a superior record.

70
Students desiring admission prior to high school graduation should contact the Admissions Office for an appointment.

**College Level Examination Program (CLEP)**

The University of Central Florida grants University credit for examinations taken under the CLEP program provided the score obtained is at the 50th percentile or above on the National Sophomore CLEP norms. The University of Central Florida will award up to 45 semester hours of University credit under the CLEP program.

CLEP credit may be earned by the following methods — CLEP general examinations, CLEP general examination subtests, and CLEP subject examinations. A student may earn a maximum of 45 semester hours of credit through this program. Successful completion of CLEP examinations means performance at or above the 50th percentile.

Awarding of CLEP credit is subject to the conditions listed below.

1. Credit may be awarded in the CLEP general examination, CLEP general subtest area, or CLEP subject examination area, provided the student (a) is not within 60 semester hours of graduation, (b) has not previously received comparable college course credit in the CLEP examination area, (c) does not receive comparable college credit in the CLEP examination area in the same semester the examination is taken or in a subsequent semester, (d) has not previously completed nor received credit by UCF (transfer or otherwise) in a more advanced course in the examination area, and (e) does not complete nor receive credit by UCF (transfer or otherwise) in a more advanced course during the semester in which the CLEP examination is taken.

2. Partial credit may be awarded in Humanities and Social Science-History general examinations to students who have course duplication in one subtest area but not in the other subtest area. For example, a student who has completed Humanities but has not completed Introductory Literature or a more advanced literature course would be eligible to receive credit in the literature subtest area, provided that he or she receives a satisfactory total score and a satisfactory subtest score.

The following table provides information related to the CLEP general examination areas and subtest areas for which credit may be awarded. In addition, this table delineates the number of credit hours per examination, and the minimum qualifying score. A table is also provided which contains information about CLEP subject examinations. The table delineates CLEP subject examinations which are available, qualifying scores for each examination, the UCF course for which each examination can substitute, and semester hours which will be awarded.

It is important to note that a maximum of 45 semester hours in any combination of extension, correspondence, CLEP, Armed Forces Service School Credits, and University Credit by Examination will be accepted by the University for application toward an undergraduate degree. In addition, CLEP credit can not be used to reduce a grade point deficiency. For example, CLEP can not be substituted for a grade awarded for a previously completed course. CLEP may not be used to fulfill the senior institution requirements.

**CLEP GENERAL EXAMINATIONS**

Qualifying scores on CLEP General Examinations earn only general (lower division) elective credit.

<table>
<thead>
<tr>
<th>CLEP General Examination</th>
<th>Qualifying Score</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>English Composition with Essay*</td>
<td>500</td>
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<tr>
<td>Humanities</td>
<td>489</td>
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<td>Mathematics</td>
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<tr>
<td>Natural Science</td>
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<tr>
<td>Biological Science</td>
<td>50</td>
<td>3</td>
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<tr>
<td>Physical Science</td>
<td>49</td>
<td>3</td>
</tr>
<tr>
<td>Social Science</td>
<td>488</td>
<td>6</td>
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</table>

*The General Examination in English Composition with Essay is not given in July or August.*
<table>
<thead>
<tr>
<th>CLEP Subject Exam</th>
<th>Semester Hours</th>
<th>Qualifying Score</th>
<th>UCF Courses</th>
<th>Courses</th>
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<tr>
<td>Afro-American History</td>
<td>3</td>
<td>50</td>
<td>None</td>
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<tr>
<td>American Government</td>
<td>3</td>
<td>50</td>
<td>POS 2041</td>
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<tr>
<td>American History I ***</td>
<td>3</td>
<td>49</td>
<td>AMH 2010</td>
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<tr>
<td>American History II***</td>
<td>3</td>
<td>49</td>
<td>AMH 2020</td>
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<tr>
<td>American Literature***</td>
<td>6</td>
<td>50</td>
<td>AML 3031 and AML 3051</td>
<td>ENC 1101 and LIT 3000</td>
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<tr>
<td>Analysis and Interp. Lit.***</td>
<td>6</td>
<td>51</td>
<td>None</td>
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<tr>
<td>Calculus w/Elem. Functions</td>
<td>4</td>
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<td>Calculus w/Anal. Geometry</td>
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<td>Clinical Chemistry**</td>
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<td>MLS 4830</td>
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<td>College Algebra</td>
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<td>College Algebra &amp; Trigonometry</td>
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<td>50</td>
<td>MAC 1104 or MAC 1114</td>
<td>ENC 1101</td>
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<tr>
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<td>ENC 1101</td>
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<td>(Duplicate CLEP Exam - Subj: Freshman Comp. w/Essay)</td>
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<td>50</td>
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<td>Computer Programming</td>
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<tr>
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<td>General Chemistry****</td>
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<tr>
<td>General Psychology</td>
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<td>PSY 2013</td>
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<tr>
<td>Hematology**</td>
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<td>51</td>
<td>MLS 3305</td>
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<tr>
<td>Human Growth and Development</td>
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<td>Immunohematology**</td>
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<td>50</td>
<td>MLS 4550</td>
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<tr>
<td>Introduction to Accounting</td>
<td>3</td>
<td>50</td>
<td>ACG 2001</td>
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<td>Introduction to Business Law</td>
<td>6</td>
<td>51</td>
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<td>None</td>
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<tr>
<td>Introduction to Management</td>
<td>3</td>
<td>49</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Introduction to Macroeconomics</td>
<td>3</td>
<td>50</td>
<td>ECO 2013</td>
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<tr>
<td>Introduction to Microeconomics</td>
<td>3</td>
<td>50</td>
<td>ECO 2023</td>
<td>None</td>
</tr>
<tr>
<td>Introduction to Marketing</td>
<td>3</td>
<td>50</td>
<td>MAR 3023</td>
<td>None</td>
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<tr>
<td>Introduction to Sociology</td>
<td>6</td>
<td>50</td>
<td>SYG 2000</td>
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<tr>
<td>Languages: French</td>
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<td>44/49/56</td>
<td>Corresponding</td>
<td>Corresponding</td>
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<tr>
<td>German</td>
<td>6/9/12</td>
<td>43/52/55</td>
<td>1120 and 1121, 2200* and 2201*, 2230 and 2231*</td>
<td>Corresponding</td>
</tr>
<tr>
<td>Spanish</td>
<td>6/9/12</td>
<td>45/48/55</td>
<td>2200* and 2201*, 2230 and 2231*</td>
<td>Corresponding</td>
</tr>
<tr>
<td>Microbiology (Clinical)**</td>
<td>6</td>
<td>49</td>
<td>MLS 4405</td>
<td>None</td>
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<tr>
<td>Programming - Fortran IV</td>
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<td>48</td>
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<td>48</td>
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<td>Trigonometry</td>
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<td>54</td>
<td>MAC 1114</td>
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<tr>
<td>(Duplicate CLEP Exam - Subj: College Alg &amp; Trig)</td>
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<td>49</td>
<td>EUH 2000</td>
<td>None</td>
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<tr>
<td>Western Civilization I***</td>
<td>3</td>
<td>49</td>
<td>EUH 2000</td>
<td>None</td>
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<tr>
<td>Western Civilization II***</td>
<td>3</td>
<td>48</td>
<td>EUH 2001</td>
<td>None</td>
</tr>
</tbody>
</table>

*Those students receiving six or nine hours are allowed to complete these courses.
**Each student must also satisfactorily complete a lab and an essay exam. Both exams will be given by the College of Health.
***Satisfactory completion of these exams does not reduce the 24,000 word requirement of the Gordon Rule.
****Does not satisfy General Education Program science laboratory requirement.
Advanced Placement Program (AP)

Students who have participated in the Advanced Placement Program in high school and received a score of three, four, or five on the national examinations will receive college credit in the appropriate subject areas. Students should consult their high school guidance counselor or write to the Educational Testing Service, Princeton, NJ 08540, for additional information.

### ADVANCED PLACEMENT EXAMINATIONS

<table>
<thead>
<tr>
<th>Examination</th>
<th>Passing Score</th>
<th>Semester Hours Awarded</th>
<th>UCF Courses</th>
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<tbody>
<tr>
<td>Biology*</td>
<td>3-4</td>
<td>3</td>
<td>BSC 1020</td>
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<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>BSC 1020 + 3 hours general elective</td>
</tr>
<tr>
<td>Chemistry*</td>
<td>3</td>
<td>3</td>
<td>CHM 2045</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>7</td>
<td>CHM 2045 and 2046</td>
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<tr>
<td>Computer Sci A</td>
<td>3-4</td>
<td>3</td>
<td>no specific equivalent</td>
</tr>
<tr>
<td>Computer Sci B</td>
<td>5</td>
<td>3</td>
<td>no specific equivalent</td>
</tr>
<tr>
<td>Computer Sci AB</td>
<td>3-5</td>
<td>3</td>
<td>no specific equivalent</td>
</tr>
<tr>
<td>Language &amp; Composition**</td>
<td>3-5</td>
<td>3</td>
<td>ENC 1101</td>
</tr>
<tr>
<td>Literature***</td>
<td>3-5</td>
<td>3</td>
<td>ENC 1101</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3-5</td>
<td>3</td>
<td>ECO 2023</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3-5</td>
<td>3</td>
<td>ECO 2013</td>
</tr>
<tr>
<td>French Lang.</td>
<td>3-4</td>
<td>3</td>
<td>FRE 1120</td>
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<tr>
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<td>5</td>
<td>6</td>
<td>FRE 1120 + 3 hours general elective</td>
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<tr>
<td>French Lit.</td>
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<td>5</td>
<td>6</td>
<td>no specific equivalent</td>
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<tr>
<td>German</td>
<td>3-4</td>
<td>3</td>
<td>GER 1120</td>
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<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>GER 1120 + 3 hours general elective</td>
</tr>
<tr>
<td>History (AM)**</td>
<td>3-4</td>
<td>3</td>
<td>AMH 2010</td>
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<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>AMH 2010 + 3 hours general elective</td>
</tr>
<tr>
<td>History (EUR)**</td>
<td>3-4</td>
<td>3</td>
<td>EUH 2001</td>
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<td>5</td>
<td>6</td>
<td>EUH 2001 + 3 hours general elective</td>
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<td>Latin</td>
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<td>LAT 1120</td>
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<td>LAT 1120 + 3 hours general elective</td>
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<td>Latin (Catulus, Horace)</td>
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<tr>
<td>Math — Cal AB**</td>
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<td>4</td>
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<td>Math — Cal BC***</td>
<td>3-5</td>
<td>4</td>
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<td>Am. Gov.</td>
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<td>Comp. Gov.</td>
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<td>6</td>
<td>MUL 2010 + 3 hours general elective</td>
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<td>Music Theory</td>
<td>3-4</td>
<td>2</td>
<td>MUT 2111</td>
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<td>MUT 2111 + 3 hours general elective</td>
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<td>Physics B*</td>
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<td>3</td>
<td>PSC 1512</td>
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<tr>
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<td>4</td>
<td>3</td>
<td>PHY 3053</td>
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<td>5</td>
<td>6</td>
<td>PHY 3053 and PHY 3054</td>
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<td>Physics C*</td>
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<td>3</td>
<td>PHY 3053</td>
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<tr>
<td>(Mechanics)</td>
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**International Baccalaureate Program**

Students who have participated in the International Baccalaureate program in high school may receive a maximum of thirty hours of credit for scores of 4 or higher in the subsidiary and higher level program areas.

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Qualifying Score</th>
<th>Credit Awarded</th>
<th>UCF Courses</th>
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<tbody>
<tr>
<td>Applied Chemistry</td>
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<tr>
<td>Higher Level</td>
<td>4,5,6,7</td>
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<tr>
<td>Art Design</td>
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<tr>
<td>Biology</td>
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<td>Chemistry</td>
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<td>Subsidiary Level</td>
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<td>Computer Science</td>
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<td>Higher Level</td>
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<td>No direct equivalent, will satisfy GEP computer science requirements</td>
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<td>Economics</td>
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<tr>
<td>French, Spanish German</td>
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<td>Mathematics with Further Studies</td>
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<td>Music</td>
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<td>Subsidiary Level</td>
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<td>Philosophy</td>
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<tr>
<td></td>
<td>Subsidiary Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Anthropology</td>
<td>Higher Level</td>
<td>3</td>
<td>ANT 2003</td>
</tr>
<tr>
<td></td>
<td>Higher Level</td>
<td>3</td>
<td>ANT 3422</td>
</tr>
<tr>
<td></td>
<td>Subsidiary Level</td>
<td>3</td>
<td>ANT 2003</td>
</tr>
<tr>
<td></td>
<td>Subsidiary Level</td>
<td>3</td>
<td>ANT 3410</td>
</tr>
</tbody>
</table>

* - to be determined by department review

**Credit by Examination**

Regularly enrolled* undergraduate students at the University of Central Florida may obtain credit for specific university courses through department examinations. Those who feel they have acquired the knowledge and/or skills of a specific University course should consult their advisor and the chair of the department in which the course is offered to arrange for an examination. Degree credit will be awarded for those courses successfully completed by departmental examination. Credit by examination may not be used to reduce the 30 semester hours residency requirement. Credit by examination will not be given for any course lower in content than courses in the same discipline (i.e., with the same rubric) in which students are currently enrolled or which they have already completed. Permission to take an examination is approved by the chair of the department and the Dean of the college in which the course is offered.

* Excludes transient and non degree-seeking students.
UNDERGRADUATE DEGREE REQUIREMENTS

REQUIREMENTS FOR GRADUATION

Students must fulfill both the requirements for a major and University graduation requirements to receive a degree from the University of Central Florida.

To earn a bachelor's degree from UCF, students must:
- Fulfill the requirements for the chosen major
- Earn a minimum of 120 unduplicated semester credit hours with at least a "C" average (2.0 GPA, both UCF and overall) for coursework attempted. Some majors require more than 120 hours.
- Earn a minimum of 60 of these 120 semester credit hours from a senior institution (an institution which offers baccalaureate degrees).
- Earn at least 48 of these 120 semester credit hours in 3000-level courses or above.
- Earn the last 30 semester hours in regular courses at UCF. Credit by examination may not be used to satisfy this requirement.
- Earn a minimum of 25% of the total hours required for the degree in residence at UCF. For programs which require the minimum of 120 total hours, residency will be 30 hours. For programs which exceed 120 hours, the specific residency requirement increases proportionally and is listed with the requirements for the specific degree program.
- Earn a minimum of 60 semester hours after CLEP credit has been awarded.
- Apply no more than 45 semester hours in any combination of extension, correspondence, CLEP, University Credit by Examination and Armed Forces credits toward an undergraduate degree.
- Fulfill the General Education requirements defined elsewhere in this section.
- Fulfill the Gordon Rule requirements defined elsewhere in this section.
- Fulfill the Foreign Language Proficiency requirements defined elsewhere in this section.
- Fulfill the CLAST requirement defined elsewhere in this section.
- Earn a minimum of nine semester hours during summer terms, if applicable.
- Complete an Intent to Graduate form by the end of the first full week of classes of the term of graduation.

CHOICE OF CATALOG AND CONTINUOUS ENROLLMENT

A student must graduate under the provisions of any UCF catalog in effect since the student began continuous enrollment at UCF. However, students transferring from Florida public community colleges or state universities may use the UCF catalog in effect at the time they began the most recent period of continuous enrollment in academic good standing at any of the Florida public institutions. Continuous enrollment is defined as being enrolled in classes without a break of two or more consecutive regular semesters (i.e., Fall and Spring, or Spring, Summer, and Fall). Continuous enrollment is automatically broken when a student moves from one transfer institution to another following academic disqualification or exclusion.

Students must use a single catalog and not a combination of catalogs for graduation. In cases when required courses are no longer taught by the university, the appropriate department, college, or university office may designate a reasonable substitute.

If students should wish to change their catalog for graduation, they should first discuss with their advisors how such a change would affect university, college, and major requirements. If student should decide to request a change, they should fill out a catalog change form in the Records Office, Administration Building, First Floor.

GENERAL EDUCATION PROGRAM

The General Education Program (GEP) is designed to provide insight into the major areas of knowledge at the University. The GEP further supplies the background for making a more knowledgeable selection of major and elective courses.

Courses which fulfill the General Education requirements are specified, but in some cases an advanced course in the same discipline may be substituted for GEP requirements with the approval of Enrollment and Academic Services. Students should consult both with an advisor and with Enrollment and Academic Services before submitting any course.
Undergraduate students who have not completed requirements for the Associate of Arts degree and who wish to transfer to another Florida public university can have their transcripts stamped GENERAL EDUCATION REQUIREMENTS MET if they have completed UCF's GEP requirements with a GPA of 2.0 or better. UCF will accept a similar statement on transcripts received from Florida public community colleges and universities in lieu of completion of the University's General Education Program.

GENERAL EDUCATION PROGRAM COURSES

(40 semester hours required)

A. Communication Foundations .................................................................9
1. ENC 1101 English Composition I 3(3,0)
2. ENC 1102 English Composition II PR: ENC 1101 3(3,0)
3. SPC 1600 Fundamentals of Oral Communication 3(3,0)

B. Cultural and Historical Foundations ..................................................9
1. Take one of the following two-semester sequences: ..........................6
   EUH 2000 Western Civilization I 3(3,0)
   EUH 2001 Western Civilization II 3(3,0)
   or
   HUM 2211 Western Humanities I 3(3,0)
   HUM 2230 Western Humanities II 3(3,0)
   or
   AMH 2010 U.S. History: 1492-1877 3(3,0)
   AMH 2020 U.S. History: 1877-present 3(3,0)
2. Take one course from the following: ..................................................3
   ARH 2050 The History of Art I 3(3,0)
   ARH 2051 The History of Art II 3(3,0)
   MUL 2010 Enjoyment of Music 3(2,1)
   THE 1020 Theatre Survey 3(2,1)
   THE 2071 Cinema Survey 3(2,2)
   REL 2300 World Religions 3(3,0)
   PHI 2010 Introduction to Philosophy 3(3,0)
   LIT 2110 World Literature I PR: ENC 1102 3(3,0)
   LIT 2120 World Literature II PR: ENC 1102 3(3,0)

C. Mathematical Foundations .................................................................6
Take one course from each group. Some majors require a specific course or a higher level course in this area. Consult your advisor:
1. MAC 1104 College Algebra 3(3,0)
   MGF 1203 Finite Mathematics 3(3,0)
2. CGS 1060C Introduction to Computer Science 3(3,0)
   STA 2014 Principles of Statistics 3(3,0)

D. Social Foundations ............................................................................9
1. ECO 2013 Principles of Economics I 3(3,0)
2. POS 2041 American National Government 3(3,0)
3. Choose one:
   PSY 2013 General Psychology 3(3,0)
   SYG 2000 General Sociology 3(3,0)
   ANT 2003 General Anthropology 3(3,0)

E. Science Foundations ..........................................................................7
Take one course from each group; one of which must include a laboratory. Some majors require a specific course or a higher level course in this area. Consult your advisor:
1. PSY 1121 Physical Science PR: MAC 1104 or MGF 1203 3(3,0)
   PHY 3053C College Physics PR: MAC 1104 or MGF 1203 4(3,3)
   CHM 1020 Concepts in Chemistry PR: MAC 1104 or MGF 1203 3(3,0)
2. BSC 1020C Biological Principles 4(3,2)
   BSC 1030C Biology and Environment 4(3,2)
   GLY 1030 Geology & Its Applications 3(3,0)
   GEO 1200 Physical Geography 3(3,0)
   BOT 1000C Plant Science 4(3,2)
   ANT 3511 Human Species 3(3,0)

* A grade of C is required in this course. 77
A grade of "C" in this course satisfies three hours of the Gordon Rule requirement in English composition. In addition any upper-division course in composition or literature taught by the UCF English Department and selected upper-division courses taught by the UCF History Department also satisfy three hours of the English composition requirement, if the course is completed with a grade of "C" or better. A list appears in "The Golden Rule" this section.

A grade of "C" or better satisfies three hours of the Gordon Rule requirement in mathematics. In addition, a grade of "C" or better in any higher level course in mathematics, statistics, or computer science also satisfies three hours of the mathematics requirement.

Substitution Of Courses — General Education Program

The Office of Academic Advising Services routinely coordinates the evaluation of transfer courses for the University's General Education Program and Foreign Language Proficiency requirements. When the transfer coursework is entered into the UCF computer system (usually during the first semester at UCF), Academic Advising Services will request course descriptions and other information to provide a sufficient basis for evaluation. Courses are evaluated on the basis of equivalency with the content of the courses required by the university. The evaluation conducted by Academic Advising Services is entered into a computerized Degree Audit System and is then available to the colleges and departments through the University's computer network.

Appeals of decision made by Academic Advising Services should be directed to Dr. David Dees, Assistant Dean, Enrollment and Academic Services.

Substitution requests for college or major requirements are processed within those administrative offices.

Alternative Courses - General Education Program

Courses which may be taken in substitution for the stated GEP requirements are given below.

<table>
<thead>
<tr>
<th>GEP REQUIREMENTS</th>
<th>ACCEPTABLE SUBSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 1104 (College Algebra)</td>
<td>MAC 1114, MAC 3233, MAC 3253</td>
</tr>
<tr>
<td></td>
<td>MAC 3254, MAC 3311, MAC 3312,</td>
</tr>
<tr>
<td></td>
<td>MAC 3313</td>
</tr>
<tr>
<td>ECO 2013 (Macro Economics)</td>
<td>Any higher level ECO course which</td>
</tr>
<tr>
<td></td>
<td>has ECO 2013 as a prerequisite</td>
</tr>
<tr>
<td>PHY 3053C (Physics)</td>
<td>PHY 3048, PHY 3049, PHY 3054C,</td>
</tr>
<tr>
<td></td>
<td>PHY 3014C, PHY 5015</td>
</tr>
<tr>
<td>CHM 1020 (Chemistry)</td>
<td>CHM 2045, CHM 1032, CHS 1440</td>
</tr>
<tr>
<td>BSC 1020C or BSC 1030C (Biology)</td>
<td>BSC 2010C</td>
</tr>
<tr>
<td>GEO 1200 (Geography)</td>
<td>GEO 3370</td>
</tr>
<tr>
<td>CGS 1060C (Intro to Computer)</td>
<td>CGS 3000, CGS 3422, COP 1200, COT</td>
</tr>
<tr>
<td>STA 2014 (Statistics)</td>
<td>3100</td>
</tr>
</tbody>
</table>

FOREIGN LANGUAGE PROFICIENCY REQUIREMENT

Students graduating with a Bachelor of Arts degree must demonstrate proficiency in a foreign language equivalent to one year of college instruction. This requirement may be met either by successful completion of the appropriate college-level course or by examination. Languages which may be used include those taught at UCF and any others for which the University can obtain standardized proficiency tests. Students who have previously received a baccalaureate are exempt from this requirement.

For specific guidelines concerning proper placement in foreign language classes, please see section: Dept. of Foreign Languages and Literatures, under the heading, Placement and Proficiency.

Some Departments and Colleges have additional requirements. See "special college and/or departmental requirements" within each departmental listing.

1. This requirement is for proficiency and not a requirement for a particular number of hours of coursework. For example, successful completion of only SPN 1121 (Elementary Spanish Language and Civilization II) would satisfy the B.A. requirement. Appropriate scores on Advanced Placement and CLEP examinations will also satisfy the requirement.

2. This is a University-wide requirement for all B.A. majors.
3. The Testing Administrator of the Office of Counseling and Testing will offer the Foreign Language Proficiency Examination periodically in each semester. Students must register in advance with that office to take the examination (RS203).
4. The foreign language proficiency requirement does not apply to students seeking a second baccalaureate degree.
5. A student who is required to furnish a passing TOEFL (Test of English as a Foreign Language) score for admission to the university and does so is considered to have satisfied the requirements.

State University System Foreign Language Proficiency Requirement

Students who have not satisfied the Foreign Language Admission Requirement at the time they are admitted to the University must satisfy this requirement prior to graduation. This requirement applies to all undergraduates and is separate from the University of Central Florida Foreign Language Proficiency requirement. For detailed information on the Admission Requirement, see the Admission chapter of this catalog.

THE GORDON RULE

The Gordon Rule (State Rule 6A-10.30) applies to students who first enrolled in any college or university after October 1982. The rule requires students to complete 24,000 words of composition in 4 courses (12 semester hours) and to complete 2 courses (6 semester hours) of mathematics at the level of college algebra or higher. Each course must be completed with a grade of "C" or better. CLEP and other forms of credit by examination may not be used to satisfy the composition portion of the Gordon Rule Requirement.

UCF courses which are required by the General Education Program may also be used to satisfy the Gordon Rule. Gordon Rule requirements may be satisfied by the General Education Program as follows:

<table>
<thead>
<tr>
<th>Gordon Rule Requirement</th>
<th>GEP Courses Which Satisfy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 6 hours of math at the level of college algebra or higher</td>
<td>(1) college algebra or finite math</td>
</tr>
<tr>
<td></td>
<td>(2) statistics or computer science</td>
</tr>
<tr>
<td>Any 3000-level or above course in math, statistics, or computer science may also be used toward fulfillment of the math portion of the Gordon Rule Requirement.</td>
<td></td>
</tr>
<tr>
<td>2. 12 hours of coursework in which the student must complete 24,000 words of composition</td>
<td>(1) 6 hours of English Composition</td>
</tr>
<tr>
<td></td>
<td>(2) 6-hour sequence of Western Humanities, U.S. History, or Western Civilization</td>
</tr>
</tbody>
</table>

All literature and composition courses taught by the Department of English, and each of the courses listed below fulfill 6,000 words of the composition portion of the Gordon Rule Requirement.

Additional specific upper level courses may also be used to meet the Gordon Rule composition requirement. Consult the OASIS and Academic Advising Services office for information.

<table>
<thead>
<tr>
<th>ADV 4101 Adv Copy &amp; Campaigns</th>
<th>JOU 4306 Critical Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOU 3100 News Reporting</td>
<td>PUR 4800 Public Relations Campaigns</td>
</tr>
<tr>
<td>JOU 4302 Editorial/Column Writing</td>
<td>RTV 3501 Broadcast Copywriting</td>
</tr>
<tr>
<td>JOU 4310 Freelance Writing</td>
<td>RTV 3300 Broadcast Newswriting</td>
</tr>
<tr>
<td>JOU 4300 Feature Writing</td>
<td>RTV 4402 Broadcast Criticism</td>
</tr>
<tr>
<td>JOU 4104 Public Affairs Reporting</td>
<td>THE 4072 Principles of Motion Picture Art</td>
</tr>
</tbody>
</table>

Each of the courses listed below fulfill 3,000 words of the composition portion of the Gordon Rule Requirement.

<table>
<thead>
<tr>
<th>AMH 3402 History of the South to 1865</th>
<th>AMH 3560 Women in American History</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMH 3403 History of the South Since 1865</td>
<td>AMH 3570 Black American History</td>
</tr>
<tr>
<td>AMH 3441 History of the Frontier: Eastern America</td>
<td>AMH 3600 Canadian History</td>
</tr>
<tr>
<td>AMH 3442 History of the Frontier: Western America</td>
<td>AMH 4110 Colonial America, 1607-1763</td>
</tr>
<tr>
<td>AMH 3445 Spanish Borderlands</td>
<td>AMH 4130 The Age of the American Revolution 1763-1789</td>
</tr>
<tr>
<td>AMH 3460 History of Urban America</td>
<td>AMH 4140 Jeffersonian America</td>
</tr>
<tr>
<td>AMH 3540 Military History</td>
<td>AMH 4160 Jacksonian America</td>
</tr>
<tr>
<td></td>
<td>AMH 4170 Civil War and Reconstruction</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>AMH 4201</td>
<td>Robber Baron Era</td>
</tr>
<tr>
<td>AMH 4231</td>
<td>United States History: 1914-1945</td>
</tr>
<tr>
<td>AMH 4270</td>
<td>United States History: 1945-Present</td>
</tr>
<tr>
<td>AMH 4311</td>
<td>American Culture I</td>
</tr>
<tr>
<td>AMH 4313</td>
<td>American Culture II</td>
</tr>
<tr>
<td>AMH 4510</td>
<td>Rise of the US to World Power, 1776-1914</td>
</tr>
<tr>
<td>AMH 4511</td>
<td>US as a Great Power: 1914-Present</td>
</tr>
<tr>
<td>ANT 3145</td>
<td>Archaeology of Complex Soc</td>
</tr>
<tr>
<td>ANT 3162</td>
<td>Archaeology of Mid &amp; S. Am</td>
</tr>
<tr>
<td>ANT 3163</td>
<td>Maya Arch</td>
</tr>
<tr>
<td>ANT 3328</td>
<td>Maya Arch</td>
</tr>
<tr>
<td>ANT 3330</td>
<td>Seminar in Arch Meth</td>
</tr>
<tr>
<td>ARH 4350</td>
<td>Baroque Art</td>
</tr>
<tr>
<td>ARH 4330</td>
<td>19th Century Art</td>
</tr>
<tr>
<td>ARH 3530</td>
<td>Art After 1945</td>
</tr>
<tr>
<td>ARH 4450</td>
<td>20th Century Art</td>
</tr>
<tr>
<td>ARH 4655</td>
<td>Mesoamerican Art</td>
</tr>
<tr>
<td>ARH 4311</td>
<td>Early Italian Renaissance Art</td>
</tr>
<tr>
<td>ARH 4312</td>
<td>Late Italian Renaissance Art</td>
</tr>
<tr>
<td>ASH 3300</td>
<td>Survey of East Asia</td>
</tr>
<tr>
<td>ASH 4404</td>
<td>China in 19th and 20th Centuries</td>
</tr>
<tr>
<td>ASH 4442</td>
<td>Modern Japan, 19th &amp; 20th Centuries</td>
</tr>
<tr>
<td>ASH 3121</td>
<td>Age of Transition</td>
</tr>
<tr>
<td>ASH 3122</td>
<td>Medieval Society and Civilization</td>
</tr>
<tr>
<td>EUH 3142</td>
<td>Renaissance and Reformation</td>
</tr>
<tr>
<td>EUH 3235</td>
<td>Romanticism and Realism</td>
</tr>
<tr>
<td>EUH 3242</td>
<td>The Emergence of Modern Soc. 1870-1930</td>
</tr>
<tr>
<td>EUH 3281</td>
<td>Second World War &amp; Rebirth of Europe</td>
</tr>
<tr>
<td>EUH 3401</td>
<td>Ancient Greece</td>
</tr>
<tr>
<td>EUH 3411</td>
<td>Ancient Rome</td>
</tr>
<tr>
<td>EUH 3651</td>
<td>War and Society</td>
</tr>
<tr>
<td>SYP 3400</td>
<td>Social Change</td>
</tr>
</tbody>
</table>

**COLLEGE LEVEL ACADEMIC SKILLS TEST — (CLAST)**

The College-Level Academic Skills Test (CLAST) is designed to ensure that students have achieved communication and computational skills commensurate with successful completion of the Lower Division. All students seeking an Associate of Arts or Baccalaureate degree from UCF are required to pass CLAST. CLAST must be taken no later than the term in which a student enrolls for the 45th credit hour.

**Transfer students** with more than 55 credit hours who have not had the opportunity to take CLAST may be admitted, but must take CLAST during their first term at UCF.

**Students with 70 or more hours of credit** who have not taken the CLAST will be restricted to enrollment in 1000- and 2000-level classes until they have taken CLAST.

Students who have not passed all four subtests of CLAST may enroll for an additional thirty-six (36) semester hours of upper division credit after qualifying for admission to upper-division status. If the CLAST requirement has not been satisfied and the additional 36 hours of upper division credit have been earned, enrollment in future terms at UCF will
be prohibited until the CLAST requirement has been satisfied. An appeal to continue enrollment must be approved by the University Admissions and Standard Committee.

There are additional guidelines which apply to students receiving financial aid. Contact the Office of Financial Aid for further information.

CLAST is offered statewide once per term. Students must register in advance at the Records Office, Administration Building, First Floor. Additionally, students may retake the English Language skills, Reading and/or math subtests on computer at the student Academic Resource Center. A fee will be charged for the computer-adapted CLAST. Information regarding CLAST may be obtained from the Student Academic Resource Center, PC1-102, phone (407) 823-5130.

CORRESPONDENCE COURSES

The Department of Independent Study by Correspondence, Division of Continuing Education, University of Florida, Gainesville, FL 32611, administers all correspondence instruction for the State University System. Phone: (904) 392-1711.

SUMMER ATTENDANCE REQUIREMENT

A student entering the State University System with less than 60 semester hours of credit is required to enroll in a minimum of 9 hours of credit in the summer at a state university. Courses taken at the University during the summer for which the student receives a "W" or "F" may be counted toward this requirement. Petitions for exemption are sent to Dr. David Dees in Enrollment and Academic Services on the form supplied by Enrollment and Academic Services (AD 210).

ADMISSION TO THE UPPER DIVISION

To be classified as an upper-division student at the University of Central Florida, a student must complete the following:

1. A minimum of 60 semester hours of academic work.
2. The English and mathematics requirements of the Gordon Rule.
3. Passing scores on three of the four parts of the College Level Academic Skills Test (CLAST)
4. One year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

STEPS IN THE GRADUATION PROCESS

A student should apply to the Registrar for graduation before registering for his final semester of attendance and not later than the end of the first week of classes of the term of graduation.

Upon completion of 100 undergraduate semester hours of coursework, the student is notified to report to his Academic Advisor.

The following steps are required of students who are near or in their last semester before graduation:

1. The student must complete an "Intent to Graduate" form, available in the Registrar's Office, not later than the end of the first full week of the term of graduation.
2. The candidate for graduation must initiate a checksheet for graduation with his/her advisor. At the end of the semester the checksheet will be completed and forwarded for approval to the Dean of the college in which the student is enrolled. If approved, the Dean will forward the checksheet through appropriate channels to the Registrar's Office for inclusion in the student's permanent University record.

Successful completion of the degree requirements stated in the catalog under which the student wishes to graduate shall constitute a recommendation of the respective college faculty that the degree be awarded, assuming the student is in good standing in the University.

A student must complete all requirements for a baccalaureate or graduate degree no later than the date of the semester graduation ceremony. A student may not be enrolled as a transient student in another institution during the term in which the baccalaureate degree or the Associate of Arts degree is to be awarded.
TEACHER CERTIFICATION REQUIREMENTS

Since July 1, 1980, initial certification requirements (Temporary Certificate) in Florida have included three basic components with a fourth now added as prerequisite to (Regular Certificate) full certification. The components are:

1. General Preparation
   Courses included in this category are normally classified as general education (i.e., General Education Program). A graduate with a Bachelor's degree from an accredited institution shall be considered to have met the General Preparation requirements.

2. Teaching Specialization
   Courses included in this category are normally classified as the major area in a student's college program. Other subjects can be shown if the specific requirements in 6A-4.07 through 6A-4.35 Florida Requirements for Teacher Certification have been met.

3. Professional Preparation
   Students can complete a program of Professional Preparation by one of two means at UCF. These means are:
   A. The State-Approved Program of Teacher Education (i.e., a major in the College of Education) and satisfaction of state requirements for SAT or ACT scores.
   B. The Basic Certification Program (i.e., a major in some other college) and admissibility to the professional phase of the program.

4. Comprehensive Examination
   Competency must be demonstrated on a written examination in the area of Mathematics, Reading, Writing, and Professional Skills. Examinations will be administered at least three times per year throughout the State of Florida.

Beginning July 1, 1981, a Regular Florida Teacher's Certificate may be issued to persons meeting all requirements for the Temporary Certificate and satisfactorily completing a year-long beginning teacher program approved by the State Board of Education.
ENROLLMENT AND ACADEMIC SERVICES

Associate Vice President: Thomas Huddleston, Jr., AD 210, Phone (407) 823-2226
Associate Dean: Paul R. McQuilkin, AD 210, Phone (407) 823-2691
Assistant Dean: David Dees, AD 210, Phone (407) 823-2691

The primary purpose of Enrollment and Academic Services is the identification, enrollment, retention and graduation of students from the University of Central Florida. Among the services provided are: undergraduate admissions; advisement and academic exploration; college and community outreach; community college articulation; financial assistance; multicultural academic support; academic records; registration; retention; academic publications; commencement; information planning and research. These responsibilities are integral to the mission of the University, addressing the immediate needs of students and faculty, while also responding to the concerns of other constituencies such as business and industry, parents, alumni, and other educational institutions.

Enrollment and Academic Services provides support through the offices of Academic Advising Services, Academic Services for Student Athletes, Community College Relations, Student Financial Assistance, Minority Student Services, Office of the Registrar, Student Academic Resource Center and Undergraduate Admission Services.

ACADEMIC ADVISING SERVICES
Director: Russell Tiberii, PH 202, (407) 823-5322

Academic Advising Services is a student centered source of academic support and information for students who are undecided about their choice of study. It is also the focal point for undergraduate academic advising support for undecided students.

Academic advising and support programs are coordinated or directed through Academic Advising Services: early admission program advising and administration, pre-major (undecided) advising, and displaced major advising. The Academic Exploration Program (AEP) is also coordinated through Academic Advising Services. The objective of the AEP is to assist undecided students in defining their goals relative to academic major choice and professional goals. Central to all academic advising and support is a developmental approach to assisting students toward the fulfillment of their academic and life goals. Through individual and group advising programs, Academic Advising Services provides general support for self-assessment, exploration of academic disciplines, and decision making. Course selection assistance is provided during each registration period, and long range academic planning assistance is provided throughout the academic year.

COMMUNITY COLLEGE RELATIONS
Interim Director: Paul R. McQuilkin, AD 210, Phone (407) 823-2691
Assistant Director: Robert Snow, AD 210, Phone (407) 823-2231

Community College Relations is responsible for: keeping community colleges informed about UCF's programs and policies; making state-wide visits to community colleges; conducting advanced orientations for AA transfers; annually publishes the UCF "Transfer Student Counseling Manual"; annually providing updated transfer information for the developing "Student OnLine Advisement and Articulation (SOLAR)" Statewide Network; monitoring the state-wide community college/university articulation agreement; serving as liaison with community college officials; and conducting appropriate workshops/meetings to maintain and improve community college relations.

MINORITY STUDENT SERVICES
Director: TBA, AD 145, Phone (407) 823-2716

The Office of Minority Student Services (OMSS) provides comprehensive academic support, cultural enrichment, consultation and referral services that promote the recruitment, admission, retention and graduation of African-American, Hispanic-American, Asian-American and Native-American students. The OMSS offers personalized advising and counseling, monitors academic progress, sponsors a six week summer program, Seizing
Opportunities for Academic Retention (SOAR), formerly EOP, and designs and coordinates cultural and social activities to assist ethnic minority students in realizing their academic, career and personal goals.

The OMSS serves as the focal point of operations in addressing the specific needs, issues and concerns that confront ethnic minority students. In addition, the OMSS plays a major role in developing and implementing multicultural diversity initiatives throughout the University and greater Orlando communities.

REGISTRAR’S OFFICE

The Registrar’s Office is responsible for: maintaining student records for the University; coordinating all aspects of registration, room scheduling, and graduation checks; processing student transcript requests; providing descriptive data on registration, and providing a variety of services to students related to student records and registration. The Office’s organizational structure is centered around the concept of updating records in a timely manner and maintaining accurate student files. The Registrar’s Office is service oriented and strives to deliver efficient and timely services and data to all constituents.

For information: Registrar’s Office, AD 161, Phone (407) 823-3100.

STUDENT ACADEMIC RESOURCE CENTER (SARC)

Director: Mary Helen Callarman, PC1-102, (407) 823-5130

The Student Academic Resource Center (SARC) provides students with free individualized and small-group tutoring in biology, chemistry, English, foreign language, math, physics, reading, statistics, and many other disciplines.

Every semester the SARC offers a series of CLAST Review Workshops for each of the four CLAST subtests. The SARC staff can also prescribe self-paced programs specifically designed for CLAST preparation. Additionally, students may retake the English language skills, Reading, and/or math subtests on computer at SARC. A fee will be charged for the computer-adapted CLAST.

The SARC provides classes and English grammar materials for non-native students who want to develop their written English skills.

The Academic Mentoring Program provides academic assistance to at-risk students through study skills workshops, academic and career advisement, tutoring, and weekly meetings with mentors. Students are equipped with the knowledge and skills they need to be successful in college.

Each semester the SARC provides a series of study skills workshops and materials on time management, note taking, test taking, memory, creative & critical thinking, and test anxiety. Additionally, classes are offered for those preparing for the GRE, GMAT, SAT, and ACT.

The SARC is designed to meet the individual needs of students. Its major objective is to provide students with academic support to ensure their success in college.
ACADEMIC PROGRAMS
UNDERGRADUATE DEGREES

Associate of Arts Degree
University of Central Florida students who satisfactorily complete 60 semester hours of acceptable college work may apply for an Associate of Arts degree. University requirements include achievement of an overall and UCF grade point average of 2.0 or above, fulfillment of the General Education Program requirements, and completion of the last 20 credit hours in residence at UCF. In addition, any student who wishes to receive an A.A. degree must have satisfied the Gordon Rule requirement and passed the College Level Academic Skills Test.

The Associate of Arts degree is awarded only upon application. The application form may be obtained in Enrollment and Academic Services, AD 210 and should be completed by the end of the first week in the semester in which the Associate of Arts degree is to be awarded. A student may not be enrolled as a transient student in another institution during the term in which the Associate of Arts degree is to be awarded. An Associate of Arts degree will not be awarded in the same term that the baccalaureate degree is to be awarded or in any term following the completion of the baccalaureate degree.

Baccalaureate Degrees
The University offers the degrees of Bachelor of Arts, Bachelor of Engineering Technology, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Engineering, Bachelor of Science in Nursing, and Bachelor of Science in Social Sciences. These degrees are available in the following Colleges with majors or areas of specialization as indicated:

College of Arts and Sciences
Bachelor of Arts (B.A.)
Majors: Anthropology, Art, Economics, English, Foreign Languages (General), French, History, Humanities, Interpersonal Communication, Journalism, Motion Picture Technology, Music, Music Education, Organizational Communication, Philosophy, Political Science, Psychology, Radio-Television, Sociology, Spanish, Theatre

Bachelor of Fine Arts (B.F.A.)
Majors: Art, Theatre

Bachelor of Science (B.S.)
Majors: Biology, Botany, Chemistry, Computer Science, Forensic Science, Limnology, Mathematics, Physics, Psychology, Social Sciences (interdisciplinary), Statistics, Zoology

College of Business Administration
Bachelor of Science in Business Administration (B.S.B.A.)
Majors: Accountancy, Economics, Finance, General Business Administration, Hospitality Management, Management, Marketing

College of Education
Bachelor of Science (B.S.)
Major: Elementary Education, Exceptional Child
Major: K-12 — Art Education, Physical Education
Major: Secondary Education, English Language Arts, Foreign Language, Mathematics, Science Education Social Science, Speech, Vocational Education and Industry Training

College of Engineering
Bachelor of Science (B.S.)
Majors: Aerospace Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Environmental Engineering, Industrial Engineering, Mechanical Engineering; plus programs leading to B.S. degree in Electrical Engineering Technology or Engineering Technology
College of Health and Public Affairs

Bachelor of Arts (B.A.)
Majors: Communicative Disorders, Criminal Justice, Legal Studies, Public Administration

Bachelor of Science (B.S.)
Majors: Cardiopulmonary Sciences, Communicative Disorders, Health Information Management, Health Services Administration, Medical Laboratory Sciences, Molecular Biology and Microbiology, Radiologic Sciences, Physical Therapy

Bachelor of Science in Nursing (BSN)
Major: Nursing

Bachelor of Social Work (B.S.W.)
Major: Social Work

Double Majors

Any UCF student working toward a single bachelor’s degree (a B.A. degree or a B.S. degree) who satisfies the requirements for two majors will be awarded one diploma, but both majors will be indicated on the student’s permanent record. Since the requirements for Bachelor of Arts and Bachelor of Science degrees are different, a student completing a major with a B.A. and a major with a B.S. must satisfy the requirements for both the B.A. and the B.S. degrees. Although both majors will be indicated on the student’s permanent record, only one diploma (a B.A. or a B.S., at the student’s option) will be awarded. A double major does not require a minimum number of hours beyond those necessary for completing degree requirements, while a second degree has specific minimum requirements. (See Second Baccalaureate Degree.)

Second Baccalaureate Degree

Any UCF student desiring to obtain two baccalaureate degrees must meet the requirements for both degrees and earn a minimum of 150 hours. A separate diploma will be awarded for each degree.

Transfer graduates from accredited four-year U.S. institutions who apply for admission to work toward a second baccalaureate degree at the University of Central Florida must meet the regular admission requirements of the major department and the UCF residency requirement for that degree (see residency requirement discussion in the chapter, Undergraduate Degree Requirements). Students holding the baccalaureate degree from accredited U.S. institutions are considered to have completed all General Education Program Requirements. Students who hold degrees from foreign institutions may be required by the Dean of Undergraduate Studies to fulfill all or part of the UCF General Education Program requirements.

The University requirements specified in the preceding paragraphs are minimum requirements. Departments and colleges may require more than 150 hours for a second degree or more than 30 hours to be taken in residence at UCF. Students should confirm department and college requirements with their academic advisors.

Minors

Minors in a limited number of programs have been authorized for certification with baccalaureate degrees. Minors must be indicated on the Intent to Graduate card and must be certified at the same time as the student’s baccalaureate degree. Unless a second baccalaureate degree is earned, certification will not be made at a later time even if additional courses have been completed.
## ACADEMIC MINORS

### COLLEGE OR DEPARTMENT AWARDING MINOR

<table>
<thead>
<tr>
<th>College/Department</th>
<th>Name of Minor</th>
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<tbody>
<tr>
<td>College of Arts &amp; Sciences</td>
<td>Russian Area Studies, Latin American and Iberian Area Studies, African</td>
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<tr>
<td></td>
<td>American Studies, Judaic Studies, Canadian Studies, American Studies,</td>
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<tr>
<td></td>
<td>Women's Studies</td>
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<tr>
<td>College of Business Administration</td>
<td>Business Administration (one minor for majors and one for non-majors)</td>
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<td></td>
<td>Economics (for non-Business Administration majors)</td>
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<td></td>
<td>International Business (for Business majors only)</td>
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<td></td>
<td>Hospitality Management</td>
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<td>Management Information Systems</td>
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<tr>
<td>College of Engineering</td>
<td>Technology and Society</td>
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<tr>
<td>College of Health and Public Affairs</td>
<td>Communicative Disorders, Criminal</td>
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<td></td>
<td>Justice, Health Sciences, Legal Studies, Public Administration</td>
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<tr>
<td>Multidisciplinary</td>
<td>Space Studies</td>
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<tr>
<td>Department of Art</td>
<td>Art History, Community Arts, Studio Arts</td>
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<tr>
<td>Department of English</td>
<td>Technical Writing and Editing, Creative Writing, Literature, Linguistics</td>
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<tr>
<td>Department of Foreign Languages and Literature</td>
<td>French, German, Italian, Russian, Spanish</td>
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<tr>
<td>Department of History</td>
<td>History</td>
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<tr>
<td>Department of Philosophy and Humanities</td>
<td>Asian Studies, Humanities, Philosophy</td>
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<td>Department of Music</td>
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<td>Department of Theatre</td>
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<td>Department of Biology</td>
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<td>Department of Chemistry</td>
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<td>Department of Computer Science</td>
<td>General Computer Science, Applied Computer Science</td>
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<td>Department of Mathematics</td>
<td>Mathematics</td>
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<td>Department of Physics</td>
<td>Physics</td>
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<tr>
<td>Department of Statistics</td>
<td>Statistics</td>
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<tr>
<td>Department of Aerospace Studies</td>
<td>Aerospace Studies (Air Force ROTC)</td>
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<tr>
<td>Department of Military Science</td>
<td>Military Science (Army ROTC)</td>
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<tr>
<td>School of Communication</td>
<td>Interpersonal Communication, Organizational Communication</td>
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<tr>
<td>Department of Political Science</td>
<td>Political Science, Political Science/Pre-Law</td>
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<tr>
<td>Department of Psychology</td>
<td>Clinical, Human Factors, Industrial/Organizational</td>
</tr>
<tr>
<td>Department of Sociology and Anthropology</td>
<td>Anthropology, Sociology</td>
</tr>
</tbody>
</table>

*Contact the College/Department for the requirements for each minor.

## GRADUATE PROGRAMS

See listing at the beginning of each college section. For further information on a particular program, contact the departmental office in the respective college or see the Graduate Catalog.
The Pre-Health Professions Advisement Office was established to function as a service to all students preparing for and seeking admission to professional schools of chiropractic, dentistry, medicine, osteopathic medicine, optometry, pharmacy, podiatry, and veterinary medicine. The services afforded students through this office are numerous and range from basic counseling in pre-health professions matters to providing a Composite Evaluation of the student (upon his/her request) to each professional school to which the student applies. However, in order to be considered for a Composite Evaluation, the student must have a minimum overall GPA of 2.8 and at least 30 semester hours of typical undergraduate pre-health professions courses taken at UCF by the end of the Spring semester preceding his/her application to the professional schools, (usually between the junior and senior year). Additionally, all pre-health professions students are strongly encouraged to affiliate with and participate in the activities of the Preprofessional Medical Society.

Pre-Health Professional Planning

Pre-health professions students should bear in mind that admission to a health professional school is competitive. For this reason, pre-health professions students should pay close attention to the characteristics of successful applicants. For example, while some dental and medical schools require only two and three years of college preparation, approximately 91 percent of all predental and 95 percent of all premedical students accepted throughout the nation each year have completed four years of college. Consequently, since pathways such as "premed" do not result in a degree, each pre-health professions student is urged to carefully select a degree-granting major. This will not only allow one to become more competitive for admission, but also to prepare for an alternate career in the event admission to a professional school is denied. Any degree-granting program offered by the University may be selected as a major; however, those programs within the sciences will generally lend themselves most adequately to pre-health professions preparation due to the nature and content of their curricula. While satisfying degree requirements, students will find in their curricula many courses required for admission to most professional schools. Additionally, prudent use of elective hours in the curricula will permit other appropriate pre-health professions courses to be obtained. Obviously, prehealth professions students are expected to be high achievers, and to obtain good grades with heavy credit hour loads and rigorous course combinations. Most professional schools expect applicants to present at least a B average and to carry a minimum of 15 credit hours each term, with the exception of summer terms. Sustained high-level performance while carrying 15 or more credit hours is one of the strongest predictors of success in professional school.

Preprofessional advisement should not be confused with academic advisement. Class scheduling and progress toward a given degree should be carefully monitored by the students faculty (academic) advisor.

Curricula Guidelines

All pre-health professions students are strongly encouraged to enroll in SLS 2311, OVERVIEW OF SELECT MEDICAL CAREERS, the first fall semester they are enrolled. This course provides a broad exposure to guest speakers representing the various four-year health professions. In addition, the entire preprofessional process (academic preparation, applications, prescreening, interviews, admission exams, admissions, scholarships etc.) is explained in depth. Following this focus on awareness, students are prepared to make informed decisions relative to planning their pre-health professional studies.

Concerning required courses, all pre-health professions students are required to complete the General Education Program (GEP) plus the following courses (many of which are applicable to the GEP):

- General Biological Sciences, BSC 2010C, ZOO 2010C
- Genetics, PCB 3063 and 3063L
- General Chemistry, CHM 2045, 2046, 2046L
- Organic Chemistry, CHM 3210, 3211, 3211L
- Microbiology, MCB 3013C
- English Composition, ENC 1101, 1102
Calculus, MAC 3233 (although MAC 3233 is acceptable, the MAC 3311, 3312, sequence is preferable)
Physics, PHY 3053C, 3054C (although the preceding courses are acceptable, the sequence PHY 3048, 3048L, 3049L, is preferable)
Statistics, STA 3023
Additional required/strongly recommended courses not common to all preprofessional students are the following:

**Premedical and predental** students should take:
- Molecular Cell Biology, PCB 3023
- Comparative Anatomy, ZOO 3713C or
- Human Anatomy, ZOO 3733C
- Embryology, ZOO 4603C
- Histology, ZOO 4753C
- Microbiology, MCB 3203C, and PCB 3233
- Analytical Chemistry, CHM 3121C plus either (or both) Biochemistry, BCH 4053, 4054, or Physical Chemistry, CHM 3410.

**Preoptometry** students must take
- General Botany, BOT 2010C
- Microbiology, MCB 3203C and it is strongly recommended they take
- Human Anatomy and/or Human Physiology, ZOO 3733C, PCB 3703C

**Prepharmacy** students must take
- General Botany, BOT 2010C
- Microbiology, MCB 3203C and it is strongly recommended they take
- Histology, ZOO 4753C; and Biochemistry, BCH 4053

**Preveterinary** students must take
- General Botany, BOT 2010C
- Analytical Chemistry, CHM 3121C
- Microbiology, MCB 3203C
- *Animal Science, ASG 3003, and ASG 3402.*

*These courses to be taken as a transient student at the University of Florida, preferably during the summer following the sophomore year.

It is strongly recommended they also take:
- Comparative Anatomy ZOO 3713C;
- Histology ZOO 4753C;
- Embryology ZOO 4603C; and
- Biochemistry BCH 4053

**For Maximal Preparation:** Additionally, the UCF courses Biochemistry (BCH 4053) Histology (ZOO 4753C), Embryology (ZOO 4603C), Genetics (PCB 3063), Immunology (PCB 3223), Neuroanatomy (ZOO 5745C) and Human Anatomy (ZOO 3733C), are strongly recommended for maximum preparation for the Basic Medical Sciences of most first year professional school curricula.

**Meaningful Electives:**
All pre-health professions students are strongly encouraged to make prudent selections of elective courses complementary to their pre-health professions preparation. Listed below are a number of appropriate courses from which elective selections can be made.

- Accountancy: (ACG 2001 and 2011) or ACG 3023.
- Biochemistry: BCH 4053.
- Communication: SPC 3301 or 4330.
- Endocrinology: PCB 5806C
- Health Sciences: APB 3600; HSC 3122; 3110; 4411; SPA 3001.
- Human Anatomy: ZOO 3733C.
- Human Physiology: PCB 3703C.
- Literature: LIT 2110 and 2120.
- Management: GEB 3004.
- Philosophy: PHI 3600; 3630.
- Political Science: PUP 4602.
- Psychology: CLP 3143; DEP 3004; 3202; 3212; EAB 3704; DEP 3464, PSB 3002, 3442 4013C; PCO 4203.
Choosing A Major and Academic Advisement

The advantage of declaring a major early is to be linked with a UCF faculty member who will serve as the student's academic advisor within his or her chosen degree tract. Problems are less likely when students remain in contact with conscientious advisors.

Students are encouraged to investigate several degree pathways and to talk with a number of students who have selected those majors. Thorough investigation at the start of the student's academic career will help him or her in making a reasonable choice. The following information offers a general guideline in selecting an academic major.

Choice of Major: The aspiring pre-health professional student is expected to declare a major within one of the degree-granting departments of the University. Terms such as premed or prevet are simply descriptive labels, as UCF does not award pre-health professional degrees.

Students may elect any major described in the UCF Catalog. This includes such varied pursuits as Psychology, Engineering, or Liberal Studies.

Traditional vs. Non-Traditional Majors: Traditional majors for pre-health professionals are characterized by degree requirements which overlap most professional school admission requirements. Chemistry, Biology, Molecular Biology and Microbiology are the majors most often chosen at UCF, but others such as Psychology, Physics and Mathematics are also appropriate choices.

Non-Traditional Majors: Such majors as English, Philosophy, Music, Engineering, and so forth, have the disadvantage of not overlapping with admission requirements. If a student elects a non-traditional pathway and does not complete more than the minimum science requirements, s/he will be expected to have accomplished an outstanding performance record in the science classes taken.

Ultimately, the choice belongs to the student. Professional schools are less concerned with what undergraduate major one chooses than with how well s/he performed and his/her choice of enrichment electives. Factors to consider are personal interests, finance for college, and career alternatives. The curriculum for the first two years is very similar for all pre-health professions students.

DATES OF IMPORTANCE

All pre-health professions students should be aware of registration deadlines and test dates for their specific admissions exam (DAT, MCAT, OAT, GRE, etc.) In addition, most four-year health professions schools subscribe to professional application services (MMCAS, ADDSAS, ACOMAS, etc.) The applicant must be aware of which schools are members of the service and thus require completion of a thorough application packet provided by the various Application Services. Some professional schools do NOT subscribe and therefore, the student applicant must deal directly with the admissions office of such schools.

The preprofessional screening process is initiated in April. Application packets are available at the Pre-Health Professions Advisement Office during the month of April. Dental applicants must return completed packets by the first Friday in May. All other applicants (Chiropractic, Medical, Optometry, Podiatry, Pharmacy, and Veterinary) must return completed packets by the third Friday in May.

Student applicants are scheduled for their Screening Committee interviews in the order of their return of completed application packets. A master schedule of all interviews for Fall term is posted on the Pre-Health Professions Advisement Office bulletin board and copies are available at the Pre-Health Professions Advisement Office, HPB 350.

ADMISSIONS EXAMINATIONS

Various standardized examinations are required of applicants as a part of the admissions process to the professional schools [dentistry-DAT; medicine-MCAT; optometry-OCAT; pharmacy-PCAT; podiatry-MCAT; veterinary medicine-GRE or VAT]. These examinations are generally offered twice each year; in the Spring and Fall. Pre-health professions students are advised to take the appropriate examination in the Spring preceding application to the professional school rather than waiting for the Fall examination. There are numerous support systems and review programs available to assist applicants with their preparation. All applicants are encouraged to maximize their preparation before registering to take any of these exams the first time. Taking an admissions exam on a trial basis is not recommended.
RELATED REFERENCES
Publications of special interest and usefulness to pre-health professional students include the following:
1. *Admission Requirements of U.S. and Canadian Dental Schools*, published by the American Associate of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, D.C. 20036;
2. *Medical School Admission Requirements, United States and Canada*, published by the Association of American Medical Colleges; One Dupont Circle, N.W., Washington, D.C. 20036;
4. *Information for Applicants to Schools and Colleges of Optometry* published by the Association of Schools and Colleges of Optometry; 213 East Ohio Street, Chicago, Illinois 60611;
5. *Pharmacy School Admission Requirements*, published by the American Association of Colleges of Pharmacy; 1730 "M" Street, N.W., Washington, D.C. 20036;
7. *Veterinary Medicine, A Career Of Choices: A Handbook for Advisors*, prepared by the Office of Student Affairs and Admissions, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853.

Preprofessional students are encouraged to obtain a copy of the admissions publication appropriate to their preprofessional area. Several of these publications are available in the University bookstore.

Other Health Professions
For Nursing and other Allied Health Professions, see College of Health and Public Affairs.

COOPERATIVE EDUCATION
Director: Sheri Dressler, PH, 208, Phone (407) 823-2667

Many university students actively plan their careers through participation in cooperative education. Co-op is an academic program combining on-campus classroom study with off-campus major-related work experience for which the student receives a salary. It offers a blend of theory and practice, integrating formal university preparation with practical work experience. Through this program, students develop professional work skills, test career goals, improve academic performance, generate income, and increase prospects for full-time employment upon graduation. Students may also earn credit for objectives accomplished on a co-op assignment when this credit counts toward a student's degree requirements.

Students choose between two scheduling options, the alternating plan in which they alternate terms of full-time work with full-time school and the parallel plan in which they attend classes full time and work part time concurrently. As an additional option, Co-op administers the Florida Work Experience Program (FWEP) through which employers are reimbursed 70% of the student's salary for providing career-related work opportunities.

Eligibility requirements for co-op include 1) full-time enrollment in an undergraduate or graduate degree program at UCF 2) completion of a minimum of 20 college semester hours 3) having a minimum of 1 academic semester remaining before graduation, and 4) maintenance of a minimum of a 2.5/4.0 UCF grade point average.

Co-op is available to students on all campuses in all five colleges.

UNIVERSITY HONORS PROGRAM
Director: TBA, PH 203, Phone (407) 823-2076

The University Honors Program at the University of Central Florida is designed to attract and challenge students who have demonstrated an ability to achieve academic excellence. The Honors Program also seeks students with particularly exceptional talents. It is committed to diversity in both the composition of its student body and the programs which it supports.
UCF's University Honors Program combines the close atmosphere of a small college with the intellectual stimulation of a major research university. Honors students receive an education that prepares them to enter the best graduate and professional schools, as well as distinguished careers in business and public service.

Honors classes are small, and coursework crosses traditional discipline boundaries to encourage critical thinking among honors students. Beyond the classroom, special guest lecturers and presentations, field trips, and University-related service activities expand the horizons of honors students.

Students in the University Honors Program are actively involved in social activities and course programming. Honors students have access to an honors lounge and to housing on campus. They also have early registration privileges.

Students may pursue honors courses through two distinct programs: University Honors and Honors in the Major.

**University Honors.** Admission into the University Honors Program is granted by the Honors Director. Students who seek admission into the program must apply directly to the Honors Director. It is the student's responsibility to obtain the appropriate Honors Program admissions information from the Director and to follow the procedures necessary to enter the program. Prospective Honors students and their parents are strongly encouraged to visit with the Honors Director as part of the admissions process. Due to the highly selective nature of the Honors program and the limited enrollment available, there are two categories of admission: Early Decision and Alternate Decision.

**Early Decision.** An incoming Honors freshman will be eligible for Early Decision if he or she has achieved one or more of the following distinctions: National Merit Scholarship Finalist or National Achievement Scholar Finalist or Semi-Finalist, Valedictorian or Salutatorian of a regionally accredited high school. In addition, students who meet the following academic criteria will also be eligible for Early Decision.

<table>
<thead>
<tr>
<th>HIGH SCHOOL GRADE</th>
<th>COMBINED SAT SCORE</th>
<th>COMBINED ACT SCORE</th>
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<tbody>
<tr>
<td>3.9+</td>
<td>1000</td>
<td>24</td>
</tr>
<tr>
<td>3.7 - 3.89</td>
<td>1100</td>
<td>26</td>
</tr>
<tr>
<td>3.5 - 3.69</td>
<td>1200</td>
<td>28</td>
</tr>
</tbody>
</table>

Students who meet any of the above criteria but apply to enter the program after the first 130 seats in the entering freshman Honors class are filled will be placed in the Alternate Decision category.

**Alternate Decision.** Students with (1) a 3.25 or better GPA and a total score of 1300 or better on the SAT or 30 or better on the ACT or (2) a 3.0 or better GPA and a total score of 1400 or better on the SAT or 33 or better on the ACT, or (3) the credentials which meet the Early Decision criteria, but who applied for entry into the program after the first 130 places were filled, may be admitted into the program under the Alternate Decision procedure. An Alternate Decision applicant must file a letter of application for admission with the Honors Director and must also submit a 500 word essay stating his or her contribution to the program. Students who seek to enter the program under the Alternate Decision procedure may be required to visit with the Honors Director for a personal interview. At least thirty students in each entering freshman Honors class will likely be chosen from the Alternate Decision category.

**Acceptance.** A student who plans to enter the University Honors Programs and who is notified of acceptance into the program must file with the Honors Director a written statement of intent to enter the program and a $60.00 payment to secure membership in the Honors Club. The student must complete this within thirty (30) days of acceptance into the program, or a place may not be available. Once the student has completed the procedures he or she will be provided with timely notice of Honors registration and orientation.

1The $60.00 payment will normally be by check or money order made out to: UCF Foundation-Honors Endowment. If for any reason any applicant cannot make this payment, he or she should discuss this with the Honors Director. No student will be denied entry into the program because of inability to pay the Honors Club membership fee.
A student who is not admitted to the program as an entering freshman may apply for admission after completing at least fifteen (15) semester hours at the University of Central Florida with at least a 3.5 GPA. Mature students who are returning to do college work after having been out of college for a period of several years, or who have never been previously enrolled in college, are especially encouraged to apply for admission to the program after one or more semesters of at least 3.5 GPA work at the University. Transfer students who seek admission will have their requests considered if they meet the high school GPA and SAT/ACT criteria listed above and have at least a 3.5 GPA in their transfer work from a regionally accredited college or university.

Students must maintain a 3.2 overall GPA and 3.0 GPA in Honors Courses in order to remain in the University Honors Program. In addition to meeting the GPA requirements, to graduate with University Honors a student must also meet the following requirements: (1) complete 12 hours of course work in Honors Sections of the General Education Program; (2) complete, with a "satisfactory" grade, "Honors Symposium I" and "Honors Symposium II"; (3) complete one "Honors Lecture" course; and (4) complete two upper division "Honors Seminars" outside of the major field of study.

Students who complete a semester abroad or receive six or more hours of upper-division credit for study abroad as part of the University International Studies Program, will receive credit for completion of one upper division "Honors Seminar."

By the end of the second week of the term in which a student plans to graduate with honors, the student must file a completed "Intent to Graduate with Honors" form with the University Honors Director.

A student who completes all of the requirements for University Honors will have the designation of "Graduation with University Honors" entered on the Diploma and the University transcript.

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2When a student has an exceptionally high number of dual enrollment, Advanced Placement, CLEP or other work which is substituted for GEP course hours, he or she may petition the University Honors Committee to substitute, on a credit for credit basis, Honors Lecture course work or Honors Seminar course work for Honors GEP course work.

3"Honors Symposium I" and "Honors Symposium II" designate one credit hour courses which will be offered, respectively, in the Fall and Spring semester of each year. This course will include guest lectures, video and film presentations, and live performances by guest artists, e.g., musicians or poets. During each semester a field trip will be included as part of the Honors Symposium. Attendance at this series will be mandatory for all students seeking University Honors. Only one unexcused absence is permitted. The course is graded on a "satisfactory"/"unsatisfactory" basis.

4Each Fall and Spring term a three credit "Honors Lecture" course will be offered. The Lecturer will offer an integrative and original course that will be open only to Honors students. The purpose of this course is to explore cross-disciplinary domains and broaden the student's perspective beyond the usual notion of a "major" field of study. Students may take more than one Honors Lecture course, but at least one such course must be taken as part of the requirements for graduation with University Honors.

5The three credit hour "Honors Seminar" is offered within the department major areas or programs, but is broad-based in the topics which are pursued. These seminars are designed especially for Honors students and are intended for non-major participation. With the consent of the Instructor, majors will also be invited into an Honors Seminar.
Honors in the Major. Application for admission to the Honors in the Major program will be made to the department or college in which Honors are sought. Requirements for admission to Honors in the Major are: the completion of sixty hours of college credits; a cumulative 3.2 or higher grade point average, including at least twelve graded upperdivision hours at the University of Central Florida; permission of the department in which such Honors are sought; and permission of the Director of the University Honors Program. Upon application and approval of the major department or college, and with notification to the University Honors Committee, GPA requirements may be waived in cases where prior work at the college level was taken at least three years previous to the current period of continuous enrollment at the college level. Participation in the University Honors Program is not a requirement for participation in Honors in the Major.

Honors in the Major is awarded upon completion of an advanced Honors Project or Thesis, and the completion of at least one upper division Honors Seminar or an Honors Directed Readings course in the department in which Honors is taken. Each department or college reserves the right to set additional requirements for Honors in the Major to be achieved. Upon petition to the Honors Committee and with the consent of the major department, a student may be awarded credit for an Honors Seminar in the major if six hours of upper-division credit accepted by the major department or college is taken abroad as part of the University International Studies Program or other overseas program directly connected with the University. The Honors Project or thesis is to be completed under the direction of a committee of three faculty members, one of whom is the major adviser. Up to six hours of 4000-level thesis credit may be awarded for student work on the Honors Project. This program is designed to encourage original and independent work on the part of the student. A copy of the thesis, creative work or project that is the expected outcome of this course will be placed in the library. With the approval of the major department or college and notification to the University Honors Committee, an Honors student may be permitted to waive any and all of the usual requirements for completion of the major and pursue a course of study designed to fit his or her individual needs.

A student who completes all of the requirements for Honors in the Major will have the designation of "Honors in the Major" noted on the diploma and the University transcript.

Summary Table of Minimum Requirements for University Honors and Honors in the Major

<table>
<thead>
<tr>
<th></th>
<th>GEP*</th>
<th>Seminars*</th>
<th>Symposium*</th>
<th>Lecture*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ. Honors</td>
<td>12 Hrs.</td>
<td>6 Hrs.</td>
<td>2 Hrs.</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>Hon. in Major</td>
<td>Up to 6 Hrs.</td>
<td>AND</td>
<td>Dir. Rdgs.*</td>
<td>Hon. Major Sem.*</td>
</tr>
<tr>
<td></td>
<td>AND</td>
<td>3 Hrs.</td>
<td>OR</td>
<td>3 Hrs.</td>
</tr>
</tbody>
</table>

*Denotes Honors Hours

Honors in the Major also designates a program in which a particular college may undertake to award Honors for upper-division work within the college. In the case of a college-wide Honors in the Major program, the student should consult the Office of the Dean of the College for information concerning procedures and requirements related to this program. Honors in the Major work is available only at the option of each department or college.

It is the responsibility of the Honors student to obtain a faculty adviser who will undertake the responsibility of directing the Honors Reading and Study Course. The student is responsible for notifying the Honor Director, in advance, when he or she intends to pursue the Honors Directed Readings Course. Prior to entry in the readings course, the student must file with the department or college and the University Honors Committee a readings list and study proposal signed by the faculty member under whose direction the course will be given. Credit towards Honors in the Major will be awarded by a department or college for a readings course if a grade of "A" or "B" is received by the student.
COLLEGE OF ARTS AND SCIENCES

UNDERGRADUATE PROGRAMS
- Anthropology (BA)
- Art (BA) (BFA)
- Biology (BS)
- Chemistry (BS)
- Communication (BA)
- Computer Science (BS)
- Economics (BA)
- English (BA)
- Film (BA)
- Foreign Language Combination (BA)
- Forensic Science (BS)
- French (BA)
- History (BA)
- Humanities (BA)
- Journalism (BA)
- Liberal Arts (BA)
- Liberal Studies (BA, BS)
- Mathematics (BS)
- Music (BA, BM)
- Music Education (BME)
- Philosophy (BA)
- Physics (BS)
- Political Science (BA)
- Psychology (BA) (BS)
- Radio-Television (BA)
- Social Sciences (Int.) (BS)
- Sociology (BA)
- Spanish (BA)
- Speech (BA)
- Statistics (BS)
- Theatre (BA) (BFA)

PREPROFESSIONAL PROGRAMS
- Predental
- Prelaw
- Premedical
- Preoptometry

OTHER PROGRAMS
- African-American Studies
- American Studies
- Asian Studies
- Canadian Studies
- Community Arts
- Judaic Studies
- Iberian and Latin-American Area Studies
- Russian Area Studies
- Women's Studies
- English as a second language - Department of Foreign Languages.

GRADUATE PROGRAMS*
- Biology (MS)
- Chemistry, Industrial (MS)
- Communication (MA)
- Computer Science (MS, Ph.D.)
- English (MA)
- History (MA)
- Mathematical Science (MS)
- Physics (MS, Ph.D.)
- Political Science (MA)
- Psychology, Clinical (MS)
- Psychology/Human Factors (Ph.D.)
- Psychology, Industrial (MS)
- Sociology, Applied (MA)
- Statistical Computing (MS)

*See the Graduate catalog.
The College of Arts and Sciences, the largest academic unit in the University, includes the following departments: Art; Biology; Chemistry; Communication; Computer Science; English; Foreign Language; History; Liberal Studies; Mathematics; Music; Philosophy; Physics; Political Science; Psychology; Sociology and Anthropology; Statistics; and Theatre.

In keeping with the aims of the University of Central Florida, the College is responsible for all programs in the broad areas of the humanities, the arts, the natural sciences, and the social sciences. The departments offer more than sixty baccalaureate, graduate, and pre-professional programs in these areas. For additional information concerning graduate programs, please refer to the Graduate Catalog.

In addition to providing strong academic degree programs in the areas noted above, the College of Arts and Sciences functions in a service mode by making available a wide selection of courses designed to complement the offerings of the other four colleges of the University. These offerings include most of the courses necessary to satisfy the University's general education requirement for all students.

A student enrolled in the College as an undergraduate must fulfill all University degree requirements including that for general education, as well as the particular requirements set forth by the department for each area of specialization. To be certified for graduation, a student must achieve at least a "C" grade point average (2.0) in the courses of his or her major and/or minor. Some departments also require a 2.0 in each major course; consult advisors for specific policies.

A student whose written or oral communication in any course is deemed unsatisfactory may be referred to the Dean by the instructor. Additional course work or an individual study program may be assigned consistent with the needs of the student and must be completed before the degree is granted.

PRELAW PROGRAM

Pre-Law Coordinator: Dr. Roger Handberg, FA 407G, Phone (407) 823-2608

There is no preferred major for prelaw. Law schools accept superior students with a good liberal arts background, regardless of major field. A Bachelor of Arts or Bachelor of Science degree with approximately three-fourths of the course work representing theory content is typically suggested. Majors such as English, History, Legal Studies, Philosophy, Sociology, and Political Science meet this criterion. The quality of undergraduate education for the legal profession, according to the Association of American Law Schools, is grounded in three basic skills and insights: comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and the creative power of thinking. Law schools require that the Law School Admission Test (LSAT) be taken prior to consideration for admission.

General information pertaining to programs of study, LSAT, careers, and law schools can be obtained from the Pre-Law Coordinator.

Advisement of prelaw students will be provided in the area where a major is chosen; for example, a prelaw student who wishes to emphasize the historical foundations should seek advisement in the Department of History; for emphasis in political science advisement should be sought in the Department of Political Science; emphasis in economics should be gained through advisement in economics programs in either the College of Arts and Sciences or the College of Business Administration; emphasis in Legal Studies can be pursued in the Department of Criminal Justice and Legal Studies in the College of Health and Public Affairs.
ADVISEMENT
Office of Academic Support and Information Services (OASIS)
Director: Ms. Judith Boyte, FA 202, Phone (407) 823-2492

The Office of Academic Support and Information Services (OASIS) is the primary office for undergraduate academic assistance in the College of Arts and Sciences. OASIS assists students in the College of Arts and Sciences with matters concerning College and University requirements, policies and procedures. The Office oversees General Education course evaluation and substitutions as well as evaluation and application of TSD credits (CLEP and AP) for Arts and Sciences students.

Questions concerning University and College academic policies affecting Arts and Sciences majors should be directed to the OASIS staff in FA 208 or by calling (407) 823-2492.

Program Planning
Although suggested curricula are available in most areas, students will plan their program in consultation with a faculty advisor appointed by the chair of the major department or by the Dean of the College of Arts and Sciences.

Foreign Language Requirements College of Arts and Sciences
Art
B.A. Art History — 2 years (4 semesters)/proficiency
B.A. B.F.A. Studio Art — 2 semesters/proficiency

Biology
2 semesters/proficiency of a foreign language
OR 8 hours of 3000/4000 level courses outside the department of major.

Chemistry
no requirement

Communication
2 semesters/proficiency

Computer Science
2 semesters/proficiency
OR approved courses in international or Multicultural Studies (consult department)

Economics
BA 2 semesters/proficiency

English
3 semesters/proficiency

Foreign Languages
4 semesters +

History
2 semesters/proficiency
strongly recommends 4 semesters for students aiming for graduate school

Liberal Studies Program
B.A. — 2 semesters with a 3rd or 4th semester recommended in some programs
B.S. — no foreign language requirement. One approved multicultural course is required.

Mathematics
2 semesters/proficiency

Music
B.A. — 3 semesters/proficiency
B.M. — 2 semesters/proficiency
B.M.E. — none

Physics
2 semesters/proficiency

Philosophy
2 semesters/proficiency

Political Science
2 semesters/proficiency

Psychology
B.A. — 3 semesters/proficiency or 2 semesters/diversity track

Social Sciences
B.S. — No foreign language requirement/

Interdisciplinary
One approved multicultural course is recommended.

Sociology/Anthropology
Anthropology — 2 semesters/proficiency
Sociology — 2 semesters/proficiency
AND either a third semester in the language
OR one approved enhancement course (consult department)

Statistics
no requirement

Theatre
B.A. — 2 semesters/proficiency
B.F.A. — no language requirement
FOREIGN STUDY CENTERS — Undergraduate Interinstitutional Transient Program

The State University System operates study centers in London, England and Florence, Italy during the fall and spring semesters. Students with 27 or more semester hours of credit and a GPA of 2.5 or above in all State Universities are eligible to apply for one or both semesters as interinstitutional transient students. Faculty at the centers are drawn from the nine State Universities. While credits are earned through Florida State University, which administers the program on behalf of the State University System, credits are fully transferable within the System. Students at the Centers are considered to be resident in their home institutions for attendance and degree purposes.

Classes at the Florence Center emphasize art history, Italian, social sciences, and the humanities; at the London Center, theatre, business, English, history and the social sciences. Field trips and museum visits are common to both. For further information consult Dr. Thomas Greenhaw in the Department of History (London Program), (407) 823-2224 or Dr. Robert Flick in the Department of Philosophy (Florence Program), (407) 823-2273.

AFRICAN-AMERICAN STUDIES PROGRAM

The College of Arts and Sciences offers a minor but not a major in Afro-American Studies consisting of a minimum of 18 semester hours.

Course Requirements: any six from this list or approved special topics courses:
1. AMH 3570 Afro-American History
2. ARH 3520 African Arts
3. COM 4461 Intercultural Communication
4. LIN 4612 African-American English
5. LIT 4354 Afro-American Writers
6. PUP 3914 Minorities in Politics
7. SYD 3720 Race and Ethnic Minorities in the U.S.
8. SOP 3724 Psychology of Racial Prejudice
9. SOP 3930 Psychology of Ethnic Minorities
10. SOW 4600 Social Work with Minorities

For further information, contact Dr. K. Seidel, Dean's Office, FA 511, (407) 823-2251.

AMERICAN STUDIES PROGRAM

The minor in American Studies requires at least 21 hours of approved upper-division courses. The courses include at least three hours of restricted electives from each of three fields: literature and humanities, social sciences, and history. Other courses may be chosen from the list of approved courses available from the American Studies advisor. For further information, contact Dr. K. Seidel, FA 511, (407) 823-2251.

ANTHROPOLOGY (see Department of Sociology and Anthropology)

DEPARTMENT OF ART
Chair: Robert T. Reedy, VAB 117, Phone (407) 823-2676
Faculty: Chavda, Congdon, Eyfells, Gaudnek, Lotz, Martin, Reedy, Rivers, Skoglund, Wahlman, Wellman

The Department of Art has 10 full-time and 8 part-time faculty members teaching studio arts, graphic design, and art history. The curriculum in Art provides professional preparation in art history, visual arts administration, and in the studio areas of ceramics, P.A.V.E. (Partners in Art for Visual Education), computer graphics, drawing, fibers and fabrics, graphic design, painting, photography, printmaking, and sculpture, as well as combination specializations. Both the Bachelor of Arts and the Bachelor of Fine Arts degrees are offered. Competitive scholarships and awards are available to currently enrolled full-time UCF art majors through portfolio reviews by Faculty. These awards are sponsored by UCF, the Altrusa Club of Winter Park, the Albin Polasek Foundation, San Miguel family & Kathleen Sheridan.

Portfolio Requirements For Studio Majors: A selective portfolio of work representing the student's studio accomplishments in design and drawing is required for faculty review at the end of the sophomore year or at the completion of 12 semester hours of studio art courses. Faculty evaluation of this portfolio will determine if the student should advance further in the B.A. program. The University reserves the right to hold, for exhibition purposes, work done in classes.
Portfolio Requirements for Graphic Design Specialization: Students wishing to transfer courses taken at other institutions must present a portfolio of work for evaluation toward use in the concentration. This program's last two-year curriculum is sequential and at present, portfolio applications are accepted only for Fall semester. Deadline for all portfolio applications is April 1 for commencing the program in Fall semester.

MINORS AND CERTIFICATE
The Department of Art offers 3 minors, one in studio art, one in art history, and one in community art. The Art Department residency requirement consists of 6 semester hours of regularly scheduled 3000-4000 level art courses. These 6 semester hours must be in an area of specialization.

Required courses for the minor in studio art: ARH 2050 & 2051, ART 2201 & 2203, 2300 and 2301 and six semester hours of studio art at the 3000 and 4000 level. To be eligible for a minor in art, a student must have a GPA of at least 2.0 in all art courses subject to the following constraints: no "D" grades in art courses from other institutions are transferable. Total hours: 24.

Required courses for the minor in art history: ARH 2050 & 2051; 3 hours chosen from ART 2201, 2203, or 2300; and 15 hours from the following: ARH 3456, 3520, 3530, 3683, 3710, 3720, 4311, 4312, 4350, 4430, 4450, 4458, 4665, ARH 4892, 5478, 5893. ARH 3930 and 4710 may also apply with approval of an art history advisor. Total hours: 24.

Minor in Community Arts
A minor in Community Arts is offered for the student who is majoring in Art, Music, Theatre, or English (with a Creative Writing focus), and is interested in helping make the arts more democratic and accessible to everyone. Students minoring in Community Arts conduct studies in culture-based aesthetics, multi-cultural education; art and politics, art and economics; art and mental health; issues regarding ethnicity, class, age and occupation; program development; and the functions and purposes of art establishments in our society. Students interested in the minor should contact the department chair.

Graphic Design Specialization
Portfolio Requirements for Graphic Design Specialization: Students wishing to transfer courses taken at other institutions must present a portfolio of work for evaluation toward use in the specialization.

This program's last two-year curriculum is sequential and at present, portfolio applications are accepted only for this fall semester. Deadline for all portfolio applications is April 1st for commencing this program in the fall semester.

Graphic Design Specialization
I ART HISTORY
   a. ARH 2050 (required) 3
   b. ARH 2051 (required) 3
   c. Any 3 upper division ARH (3000-4000 level) 9
II DESIGN FUNDAMENTALS
   a. ART 2201 (required) 3
   b. ART 2203 (required) 3
III DRAWING FUNDAMENTALS
   a. ART 2300 (required) 3
   b. ART 2301 (required) 3
IV STUDIO AREA SPECIALIZATION —
   (Many courses include Computer Graphics Components) (15)
   ART 3239 Graphic Design I (3)
   ART 3232 Graphic Design II (3)
   ART 3610 Computer Graphics (3)
   ART 4235 Adv. Graphic Design (3)
   ART 4237 Special Problems in Graphic Design (3)
V. RESTRICTED ELECTIVES (12)
(Upper Division Hours)
Minimum of three (3) areas represented, all courses must be outside of the area of specialization.

- Drawing: 3330 (3), 3331 (3)
- Painting: 3510 (3), 4530 (3)
- Printmaking: 3400 (3), 4402 (3)
- Photography (PGY): 3401 (3), 4420 (3)
- Sculpture: 3701 (3), 4703 (3)
- Ceramics: 3110 (3), 4111 (3)
- Fibers & Fabrics: 3133 (3), 4130 (3)

*Special Topics (Upon approval of Student Advisor) (3)

TOTAL required hours in major Art: (Graphic Design) (54)

Graduation Portfolio of representative studio work done in graphic design specialization. Portfolio deadline is the last week of the last semester in which student files an intent to graduate form.

Bachelor of Arts: Art

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
   A student must achieve at least a "C" grade point average (2.0) in the courses of his or her major.
   No "D" grades in Art courses from other institutions are transferable.
   Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Art. Nine of these must be in an area of specialization.
3. Required courses
   Varies with Specialization
4. Restricted Electives
   Varies with Specialization
5. Electives
   To be selected primarily from upper level courses outside the Department, with the approval of the student's advisor.

Total Semester Hours Required: 120

AREAS OF SPECIALIZATION

I. Art History Degree Requirements
1. Art History Foundation Courses
   - ARH 2050, 2051 History of Art I, II: 9 hours
   - ART 2201C Design Fundamentals I: 3 hours
2. Art History Core Courses
   - ARH 4310 Early Italian Renaissance Art: 3 hours
   - ARH 4430 Nineteenth Century Art: 3 hours
   - ARH 4450 Twentieth Century Art: 3 hours
   A Non-Western Art History Course (from the following):
     - ARH 3520 African Art
     - ARH 4545 Art of Indian
     - ARH 3530 Asian Art
     - ARH 4655 MesoAmerican Art: 3 hours
     One of the following:
     - ARH 4350 Baroque Art
     - ARH 4312 Later Italian Renaissance
     One of the Women in Arts Courses: 3 hours
     - ARH 4800 Theory and Criticism: 3 hours
     - ENC 3311 Expository Writing: 3 hours
     - ARH 4912 Senior Thesis: 3 hours
     - ARH 4906 Comprehensive Exam: 1 hour
3. Art History Electives 12 hours

ARH 3520 African Art
ARH 3728 American Art
ARH 3456 Art since 1945
ARH 5451 Artistic World Views
ARH 4350 Baroque Art
ARH 5478 Contemporary Women Artists
ARH 4170 Greek and Roman Art
ARH 3710 History of Photography I
ARH 3711 History of Photography II
ARH 3720 History of Prints
ARH 4312 Later Italian Renaissance
ARH 4655 MesoAmerican Art
ARH 3683 Southern Folk Arts
ARH 3820 Visual Arts Administration
ARH 4892 Women in Art

Optional Electives (0-6 hours)
any AMH 3000-4000 level course
any ANT 3000-4000 level course
any ART 3000-4000 level course
any ENL 3000-4000 level course
any HUM 3000-4000 level course
any LIT 3000-4000 level course
any PHI 3000-4000 level course
any EUH 3000-4000 level course

4. Foreign Language Requirement 14 hours
A total of 14 hours of a foreign language or a proficiency exam equivalent is required.

Total Semester hours in Art and Art History Courses 46 hours

D. Foreign Language 12 hours
2 years of college level courses (proficiency).

E. Comprehensive Art History Examination:
ARH 4906 Directed Independent Studies (3)

Total Semester hours in Art and Art History Courses 45-48
Total Semester Hours Required 120 hours

II. Art (Studio) 27 hours

A. Required Courses
ART 2201C, 2203C Design Fundamentals I, II
ART 2300C, 2301C Drawing Fundamentals I, II
ARH 2050, 2051 History of Art I, II
ARH 3000-4000 Art History Courses (Any 3)

B. Studio Specialization 15 hours
3000-4000 level courses from:

*See specialization in Graphic Design pp 100-101.

C. Restricted Studio Electives 12 hours
3000-4000 level courses from at least 3 areas outside the area of specialization: Ceramics, Drawing, Fiber & Fabrics, Graphic Design, Painting, Printmaking, Photography, Sculpture, and Special Topics Studio Courses.

D. Foreign Language
Two semesters/proficiency
E. Portfolio Requirement

Seniors are required to submit a portfolio of representative work in the student’s area of specialization, for review by Faculty.

<table>
<thead>
<tr>
<th>Total Semester Hours in Art &amp; other recommended courses</th>
<th>54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Semester Hours Required</td>
<td>120</td>
</tr>
</tbody>
</table>

**Bachelor of Fine Arts: Art**

The B.F.A. degree is recommended for studio art majors who plan to attend graduate school. Admission to the B.F.A. degree program requires the student to submit a formal application and a portfolio to the Faculty no earlier than the first semester of the student’s senior year (upon completion of 90 semester hours). Once admitted to the B.F.A. program, the student must complete an additional 30 semester hours at UCF, with 12 hours in Art courses. A senior exhibition is required for graduation. A portfolio is required for Graphic Design specialization.

**Degree Requirements**

1. See University Degree Requirements.
   Students must achieve at least a “B” grade point average (3.0) in the courses of their major.
2. B.F.A. requires 2 semesters/proficiency in Foreign Language
3. See Special college and/or department requirements: Students must achieve at least a 3.0 average in courses in the major. No “D” grades in transfer Art courses; Department Residency Requirement consists of at least 18 semester hours of regularly scheduled upper-level courses must be taken from the UCF Department of Art. Nine of these must be in the area of specialization.

4. Required Courses
   - ART 2201C, 2203C Design Fundamentals I, II 6 hours
   - ART 2300C, 2301C Drawing Fundamentals I, II 6 hours
   - ARH 2050, 2051 History of Art I, II 6 hours
   - ARH 3000-4000 Art History Courses 9 hours

5. Area Specialization 3000-4000 level courses from: Ceramics, Drawing, Graphic Design, Painting, Printmaking, Photography, Sculpture or combinations. In a combination, a student must have a minimum of 15 hours in one specialization.
   *(See in Graphic Design. Minimum credit hour requirement for Graphic Design specialization will be 18 hours.)*

6. Restricted Studio Electives
   - 3000-4000 level courses from at least three areas outside the student’s specialization: Art History, Ceramics, Drawing, Fibers & Fabrics, Graphic Design, Painting, Printmaking, Photography, Sculpture, and Special Studio Topics Courses.
   - ARE and ARH Community Arts courses are acceptable, with consent of advisor.

7. BFA Exhibit/Seminar (ART 4932) Requirement.
   - 3 hours

**ASIAN STUDIES**

This program offers a minor, but not a major, in Asian Studies. The program is interdisciplinary and is administered by the Department of Philosophy. For further information, contact Dr. Kassim, FA 411-J, (407) 823-2273.
DEPARTMENT OF BIOLOGY

Acting Chair: D.H. Vickers, BL 210, Phone (407) 823-2141

Faculty: Ehrhart, Koevenig, Kuhn, Osborne, Snelson, Stout, Sweet, Taylor, Vickers, Whittier, Ellis (Professor Emeritus)

The Department of Biology offers a Bachelor of Science degree program in Biology; a minor in biology; and the Master of Science in Biology. The core curriculum provides a background in the chemical, mathematical, and physical sciences, as well as broad preparation in the biological sciences. This diverse background opens career opportunities for graduates in areas outside of their particular degree program. In addition, graduates are well prepared to further their education in professional or graduate schools. Selection of electives, in consultation with a faculty advisor, permits emphasis on a specific subspecialty within a degree program. Careful selection of restricted and unrestricted electives allows a student to satisfy all requirements for admission to professional or graduate school, while at the same time completing a B.S. degree in Biology. Research experience and exposure to specialized topics not taught through formal courses may be gained through independent study contracts.

SUBSPECIALITIES WITHIN THE BIOLOGY DEGREE PROGRAM

The undergraduate Biology curriculum provides students with the basic principles which undergird the science, and introduces options traditionally only open at the advanced level. Most entry level students need the broad exposure provided by the lower division core curriculum in order to make informed decisions about their career goals. Although some Biology majors are preparing themselves for entry into Medical or other narrowly defined professional areas, these professions all demand that students master broad biological principles prior to beginning more advanced study. Specialization has traditionally been pursued at the postgraduate level, although current trends tend to, unwisely in our opinion, push specialization to lower levels.

Even though all students majoring in Biology receive a single degree (B.S. in Biology), it is still possible to emphasize areas of interest at the upper division. Specialization is dependent upon expertise of existing faculty and course availability. Currently three areas of emphasis are suggested, although other possibilities exist. The specific courses selected must comply with departmental requirements and area distributions, and should be chosen in consultation with a faculty advisor.

ECOLOGY — Limnology I, Limnology II, Aquatic Biology, Plant Geography and Ecology, Population Biology and Evolution, an additional course in Biostatistics.


MINOR IN BIOLOGY

The Department of Biology offers a minor in Biology consisting of a minimum of 28 hours. Required courses (18 hours): BOT 2010C; BSC 2010C; PCB 3043; PCB 3063; ZOO 2010C. Upper Division Restricted Electives (10 hours): At least 10 hours of course work taught within the Department of Biology (designated as being within the College of Arts & Sciences-AS) with at least three credits from Group A or C and either three credits from Group B or D, or PCB 3023. Groups A-D are listed under the restricted elective subsection of the Biology core curriculum. To be eligible for a minor in Biology a student must have a GPA of at least 2.0 in all UCF biology courses subject to the following constraints: (A) No credit by exam (CLEP, TSD, Military credit) (B) NO "D" grades from other institutions will be accepted (C) At least 10 of the 28 hours must be earned in residence at UCF.

Bachelor of Science: Biology

Degree Requirements

1. To be eligible for an undergraduate degree in Biology a student must have a GPA of at least 2.0 in all UCF biology courses subject to the following constraints: (A) No credit by exam (CLEP, TSD, Military credit) may be used; (B) No "D" grades from other institutions will be accepted; (C) No more than 4 hours of independent study, directed research or
similar types of credit may be applied toward major requirements; (D) at least 15 hours of all Biological Sciences credits applied toward the major must be earned in residence at UCF within the Department of Biology; (E) 2 semesters proficiency of a foreign language OR 8 hours of 3000/4000 level courses outside the Biology Department.

Students seeking a double major must satisfy the requirements for both majors and must take no fewer than 40 semester hours of upper division restricted elective coursework appropriate to the combined areas of specialization of the two majors.

2. See University undergraduate degree requirements for GEP courses required outside major.

3. Core requirements: 47-52 hours

Must be satisfied by all students seeking an undergraduate degree from the Department of Biology.

**Biology Core Courses (21 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 2010C</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>BSC 2010C</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 2010C</td>
<td>General Zoology</td>
<td>4</td>
</tr>
</tbody>
</table>

The above courses are prerequisite or corequisite to all upper division biology courses.

**Cognate Sciences Core Courses (26-31 hours)**

The below requirements represent minimum physical science requirements of a Life Science student. Those expecting to enter professional or graduate school after receiving a B.S. degree at UCF should plan to take a full year of Physics with laboratory. Such students may wish to take Biochemistry (BCH 4053, 54) as well. Calculus is also considered desirable for many postgraduate and professional programs. Students are urged to consult their advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 2045, 2046, 2046L</td>
<td>Chem. Fund I and II with lab</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 3210, 3211, 3211L</td>
<td>Organic Chem. I &amp; II with lab</td>
<td>8</td>
</tr>
<tr>
<td>or</td>
<td>CHM 3120C and Analytical Chemistry and 10 hours</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>CHM 2205 Intro Organic &amp; Biochemistry</td>
<td></td>
</tr>
<tr>
<td>PHY 3053C or College Physics I 4 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>PHY 3054C College Physics II 4 hours</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>PHY 3048 &amp; PHY 3048L Physics for Eng. &amp; Sci. I with Lab 4 hours</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>PHY 3049 &amp; PHY 3049L Physics for Eng. &amp; Sci. II with Lab 4 hours</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>MAC 1104 and higher College Algebra and higher 6 hours</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>Any Calculus course Calculus 3-5 hours 3-6 hours</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>STA 3023 Statistical Methods 3 hours</td>
<td></td>
</tr>
</tbody>
</table>

Minimum Mathematics 3 hours

Minimum Statistics 3 hours

4. Upper Division Restricted Electives: 26 hours

Must be selected from the below course groupings and each student must complete at least one BOT and at least one ZOO (or ENY) course. In addition, each student must complete at least three credit hours from each of groups A-D with additional required credits to meet the individual major requirements. Transferred courses must be at a 3000 level or higher, and be evaluated by an advisor, in order to count as an Upper Division Restricted Elective.
### Group A

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 4713C</td>
<td>Plant Taxonomy</td>
<td>5</td>
</tr>
<tr>
<td>ENY 4004C</td>
<td>General Entomology</td>
<td>4</td>
</tr>
<tr>
<td>MCB 3013C</td>
<td>General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>MCB 4114C</td>
<td>Microbial Systematics</td>
<td>4</td>
</tr>
<tr>
<td>PCB 3301C</td>
<td>Aquatic Biology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 3303C</td>
<td>Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 4203C</td>
<td>Invertebrate Zoology</td>
<td>4</td>
</tr>
</tbody>
</table>

### Group B

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 3800</td>
<td>Ethnobotany</td>
<td>3</td>
</tr>
<tr>
<td>BOT 3820</td>
<td>Plants and Urban Envir</td>
<td>3</td>
</tr>
<tr>
<td>BOT 4623C</td>
<td>Plant Geography &amp; Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BOT 3680</td>
<td>Florida Wild Flowers</td>
<td>4</td>
</tr>
<tr>
<td>PCB 4683</td>
<td>Population Biol &amp; Evolution</td>
<td>4</td>
</tr>
<tr>
<td>PCB 3043L</td>
<td>Ecology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PCB 4302C</td>
<td>Limnology I</td>
<td>4</td>
</tr>
<tr>
<td>PCB 4303C</td>
<td>Limnology II</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 4880C</td>
<td>Fisheries Management</td>
<td>4</td>
</tr>
</tbody>
</table>

### Group C

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 4223C</td>
<td>Plant Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BOT 4303C</td>
<td>Plant Kingdom</td>
<td>5</td>
</tr>
<tr>
<td>BSC 4103</td>
<td>History of Biology</td>
<td>3</td>
</tr>
<tr>
<td>PCB 3063L</td>
<td>Genetics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ZOO 3713C</td>
<td>Comp Vert. Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>ZOO 4603C</td>
<td>Embryology/Development</td>
<td>5</td>
</tr>
<tr>
<td>ZOO 4753C</td>
<td>Vertebrate Histology</td>
<td>5</td>
</tr>
</tbody>
</table>

### Group D

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 4053</td>
<td>Biochemistry</td>
<td>6</td>
</tr>
<tr>
<td>BCH 4054</td>
<td>Biochemistry</td>
<td>6</td>
</tr>
<tr>
<td>BOT 4503C</td>
<td>Plant Physiology</td>
<td>4</td>
</tr>
<tr>
<td>MCB 4414</td>
<td>Microbial Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>PCB 3233</td>
<td>Immunology</td>
<td>3</td>
</tr>
<tr>
<td>PCB 4723</td>
<td>Animal Physiology</td>
<td>4</td>
</tr>
</tbody>
</table>

### Supplemental*

*With the advisor’s approval, seniors may take the following 5000 level courses to meet the restricted electives credit requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 5495</td>
<td>Bryology</td>
<td>3</td>
</tr>
<tr>
<td>BOT 5686</td>
<td>Conservation of Native Plants</td>
<td>4</td>
</tr>
<tr>
<td>BOT 5705</td>
<td>Plant Biosystematics</td>
<td>4</td>
</tr>
<tr>
<td>PCB 5326</td>
<td>Ecosystems of Florida</td>
<td>5</td>
</tr>
<tr>
<td>PCB 5045</td>
<td>Conservation Biology</td>
<td>4</td>
</tr>
<tr>
<td>PCB 5046</td>
<td>Advanced Ecology</td>
<td>5</td>
</tr>
<tr>
<td>PCB 5675</td>
<td>Evolutionary Biology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 5466</td>
<td>Ichthyology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 5463</td>
<td>Herpetology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 5475</td>
<td>Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 5483</td>
<td>Mammalogy</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 5745</td>
<td>Neuroanatomy</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 5815</td>
<td>Zoogeography</td>
<td>4</td>
</tr>
</tbody>
</table>

*Independent Study Maximum of 4 hours

5. Unrestricted electives (may include 8 hours of additional biology courses) 12-20 hours

6. Total Minimum Hours Required for B.S. in Biology 120 hours
Bachelor of Science: Biology/Preprofessional

The University of Central Florida does not offer a preprofessional degree. However, most preprofessional students earn a B.S. degree in Biology while completing their admission requirements for professional school. The following suggested curriculum is not a degree program but simply a composite suggestion as to how one might complete a degree in Biology while completing entrance requirements for professional or graduate school. Note that the minimum cognate science requirements listed below are more rigorous than those listed earlier under Departmental requirements.

1. See University undergraduate degree requirements for GEP courses required outside major

2. Required Departmental Core Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 2010C</td>
<td>General Botany</td>
<td>4 hours</td>
</tr>
<tr>
<td>BSC 2010C</td>
<td>General Biology</td>
<td>4 hours</td>
</tr>
<tr>
<td>ZOO 2010C</td>
<td>General Zoology</td>
<td>4 hours</td>
</tr>
<tr>
<td>PCB 3023</td>
<td>Molecular Cell Biology</td>
<td>3 hours</td>
</tr>
<tr>
<td>PCB 3043</td>
<td>Ecology</td>
<td>3 hours</td>
</tr>
<tr>
<td>PCB 3063</td>
<td>Genetics</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

3. Cognate Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 2045, 2046, 2046L</td>
<td>Chem. Fund I and II with lab</td>
<td>8 hours</td>
</tr>
<tr>
<td>CHM 3210, 3211, 3211L</td>
<td>Organic Chem. I &amp; II with lab</td>
<td>8 hours</td>
</tr>
<tr>
<td>PHY 3053C, 3054C</td>
<td>College Physics I &amp; II</td>
<td>8 hours</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 3048, 3048L</td>
<td>Physics for Eng. &amp; Sci. I with lab and</td>
<td>4 hours</td>
</tr>
<tr>
<td>PHY 3049, 3049L</td>
<td>Physics for Eng. &amp; Sci. II with lab</td>
<td>4 hours</td>
</tr>
<tr>
<td>MAC 1104 or higher</td>
<td>College Algebra or higher and</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAC 3233</td>
<td>Concepts of Calculus</td>
<td>3 hours</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAC 3311, 3312</td>
<td>Calc &amp; Anal Geom I &amp; II</td>
<td>8 hours</td>
</tr>
<tr>
<td>STA 3023</td>
<td>Statistical Methods</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

3. Suggested Restricted Electives: The below courses are suggested as being appropriate to various preprofessional students. Actual selections should be carefully made in consultation with the student's advisor while paying attention to the specific admission requirements of the particular professional school to which the student expects to apply.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCB 3013C</td>
<td>General Microbiology</td>
<td>5 hours</td>
</tr>
<tr>
<td>BOT 3800</td>
<td>Ethnobotany</td>
<td>3 hours</td>
</tr>
<tr>
<td>PCB 3063L</td>
<td>Genetics Lab</td>
<td>1 hour</td>
</tr>
<tr>
<td>ZOO 3713C</td>
<td>Comp Vert. Anat.</td>
<td>5 hours</td>
</tr>
<tr>
<td>ZOO 4603C</td>
<td>Embryology/Development</td>
<td>5 hours</td>
</tr>
<tr>
<td>ZOO 4753C</td>
<td>Vertebrate Histology</td>
<td>5 hours</td>
</tr>
<tr>
<td>PCB 3233, PCB 3233L</td>
<td>Immunology</td>
<td>4 hours</td>
</tr>
<tr>
<td>PCB 4723</td>
<td>Animal Physiology</td>
<td>4 hours</td>
</tr>
<tr>
<td>BCH 4053 &amp; 4054</td>
<td>Biochemistry</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

4. Unrestricted Electives may include electives appropriate to particular professional subspecialty. Students should carefully select unrestricted electives with the assistance of their preprofessional advisor.
CANADIAN STUDIES PROGRAM

Canadian Studies offers both a certificate and a minor but not a major. This program is interdisciplinary and includes courses from the departments of Criminal Justice and Legal Studies, English, Foreign Languages, History, Political Science, Sociology and Anthropology, and the College of Engineering. In addition, UCF is the site of the Florida-Canada Institute, a state program which offers other activities relating to Canada. For information consult Dr. M. Elliot Vittes, Director of Canadian Studies, at the Florida Canada Institute Center, FA 408D, (407) 823-2608.

DEPARTMENT OF CHEMISTRY

Chair: G. Cunningham, CH 117, Phone (407) 823-2246

Faculty: Beck, Clausen, Elsheimer, Gupton, Hampton, Hertel, Juge, Kujawa (Geology), Madsen, Mattson, McCann, McGee (Forensic Science), Miles, Richardson, Trefonas

The Department of Chemistry offers courses and programs which lead to a Bachelor of Science in Chemistry, a Bachelor of Science in Forensic Science, a minor in Chemistry and a Master of Science in Industrial Chemistry.

The undergraduate degree program in chemistry is accredited by the American Chemical Society Committee on Professional Training. It prepares the graduate for career opportunities in the chemical or related industries or in government laboratories. The program may also lead to further study at the graduate level in chemistry or in a related area such as pharmacology or toxicology. With an appropriate choice of electives it also constitutes excellent preparation for the professional schools of dentistry, medicine, and veterinary medicine.

MINOR

The Department of Chemistry offers a minor consisting of a minimum of 28 semester hours.

Required courses (20-22 semester hours): CHM 2045, 2046, 2046L, 3210, 3211, 3211L, and 3120C.

Restricted electives (6-8 semester hours minimum): At least one course must be selected from group I and the remaining from group I and/or II:

Group I: CHM 3212L, 4130C, BCH 4103L, CHS 3531, CHM 3411L, CHM 5451L
Group II: BCH 4053, 4054, CHM 3410, 3411, 4220, 4221, CHS 4110C, 4200, CHM 5235, 5450

To be eligible for a minor in Chemistry a student must have a GPA of at least 2.0 in all UCF Chemistry courses and an overall 2.0 GPA in all Chemistry courses used to satisfy this requirement. A minimum of 11 hours of Chemistry must be earned at UCF and no D grades from another institution will be accepted.

Bachelor of Science: Chemistry

Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. To be eligible for an undergraduate degree in Chemistry a student must have an overall GPA of at least 2.0 in all UCF Chemistry courses and an overall 2.0 GPA in all Chemistry courses (including transfer courses) used to satisfy this requirement. Grades earned in CHM 4932 and CHM 4912 will not be applied to determination of the Chemistry GPA. At least 15 Chemistry credits must be earned at UCF.

4. Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 2045, 2046</td>
<td>Chemistry Fundamentals I, II</td>
<td>7</td>
</tr>
<tr>
<td>CHM 2046L</td>
<td>Chemistry Fundamentals Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHM 3210, 3211</td>
<td>Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHM 3211L, 3212L</td>
<td>Organic Laboratory Techniques I, II</td>
<td>4</td>
</tr>
<tr>
<td>CHM 3120C</td>
<td>Analytical Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHM 3410, 3411</td>
<td>Physical Chemistry I, II</td>
<td>7</td>
</tr>
<tr>
<td>CHM 3411L</td>
<td>Physical Chemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHM 4610</td>
<td>Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 4610L</td>
<td>Inorganic Chemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHM 4130C</td>
<td>Advanced Analytical Laboratory Technique</td>
<td>4</td>
</tr>
<tr>
<td>CHM 4912</td>
<td>Undergraduate Research</td>
<td>4</td>
</tr>
<tr>
<td>CHM 4932</td>
<td>Chemistry Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

107
Forensic Science Program

Director: W. W. McGee, CH 221, Phone (407) 823-2788

Forensic Science is the profession which serves the scientific needs of the justice system. The program at UCF has been designed to provide the student with an educational background in the professional specialty of criminalistics.

The principal job of the forensic scientist is to scientifically examine physical evidence gathered at the scene of a suspect criminal action. The criminalist may work on physical evidence such as blood, hairs, fibers, or pharmaceutical and clandestine drug preparations. Upon completion of an investigation the forensic scientist presents his findings in court. The goal of the Forensic Science program is to prepare students for this demanding profession.

Bachelor of Science: Forensic Science

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 2010C</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHM 2045, 2046</td>
<td>Chemistry Fundamentals I, II</td>
<td>7</td>
</tr>
<tr>
<td>CHM 2046L</td>
<td>Chemistry Fundamentals Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHM 3210, 3211</td>
<td>Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHM 3210L</td>
<td>Organic Laboratory Techniques I</td>
<td>2</td>
</tr>
<tr>
<td>CHM 3120C</td>
<td>Analytical Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHS 3501</td>
<td>Introduction to Forensic Science</td>
<td>3</td>
</tr>
<tr>
<td>CHS 3505</td>
<td>Forensic Microscopy</td>
<td>3</td>
</tr>
<tr>
<td>CHS 3531</td>
<td>Forensic Analysis of Controlled Substances</td>
<td>3</td>
</tr>
<tr>
<td>CHS 4591</td>
<td>Forensic Science Internship</td>
<td>6</td>
</tr>
<tr>
<td>COP 3200</td>
<td>Computer Programming</td>
<td>3</td>
</tr>
</tbody>
</table>
ENC 3241  Technical Report Writing  3 hours
CHM 3410  Physical Chemistry I  4 hours
CHM 4190C  Advanced Analytical Chemistry  4 hours
MAC 3253, 3254  Applied Calculus I, II  6 hours
PHY 3053C, 3054C  College Physics I, II  8 hours
STA 3023  Statistical Methods I  3 hours

4. Restricted Electives
The intent of the restricted electives is to provide the major with an opportunity to select
in consultation with his/her advisor, a minimum of 13 hours of coursework which will
complement the student’s specialized program of study in the major field. These
courses will include BOT 2010C, General Botany or MCB 3010C. General Microbiology,
with the remainder normally selected from upper division courses of science or forensic
science. Exceptions to these stipulations must be approved by the student’s advisor.

5. Electives
Total Semester Hours Required  120

SCHOOL OF COMMUNICATION

Interim Director:  M.D. Meeske, FA 534, Phone (407) 823-2681
Faculty:  Arnold, Blum, J. Butler, Collins, Davis, Fedler, Fowles, Grasty, Hall, Harpole,
Hoglin, Hooper, Johnson, M. Jones, Long, Maunez-Cuadra, Meeske, O’Hara,
O’Keefe, Pryor, R. Smith, Tanzl, Taylor, Welker-Hatfield, Welke, Wycoff

The School of Communication offers Bachelor Degree programs in five specific areas.
Students have the option of selecting a specialized track for the Film or Journalism degree:
1. Bachelor of Arts: Interpersonal Communication
2. Bachelor of Arts: Journalism A. News/Editorial Track B. Advertising/Public Relations
3. Bachelor of Arts: Organizational Communication
4. Bachelor of Arts: Radio-Television
5. Bachelor of Arts: Motion Picture Technology A. Production-Screenwriting B. Animation

Any student contemplating graduate study should be aware of special requirements in
some graduate schools, such as foreign languages, statistics, and computer sciences.

Admission to the School of Communication
The Radio-Television, Motion Picture Technology and Journalism (both News Editorial
and Advertising/Public Relations) degree programs are designated limited access. Limited
access means there are additional requirements over and above those set for general
admission to the University.

Interpersonal Communication and Organizational Communication are not limited access
degree programs. The policies set for general admission to the University are sufficient to
enter the Interpersonal or Organizational Communication majors.

Admission Deadlines
Students intending to major in Radio/Television, Journalism or Motion Picture Technology
must apply for admission to the School of Communication through the School office.

Radio/TV and Journalism
Students planning to major in Radio/TV or Journalism (News Editorial or Advertising/
Public Relations) should apply only after completing all requirements for admission.
Deadlines are:

Motion Picture Technology
Applications for the Motion Picture Technology major are accepted only ONCE PER
YEAR. Applications will be accepted January 14, 1995 for admission to Fall term, 1995.

Interpersonal and Organizational Communication
Students NEED to apply to the School office to enter these majors. Only general
University admission policies must be met, but students must submit an application to be
placed in the major. Students wishing to major in Interpersonal or Organizational Communication should see an advisor to obtain proper counseling.

Graduation Requirements
1. A final 2.25/4.00 grade point average in all required courses for a major (not required of Interpersonal or Organizational Communication majors) must be completed in order to graduate with a major in the School. NOTE: This grade point average does not include Restricted Electives in the major or other electives.
2. Students electing both a major and minor in the School must take the minor courses in excess of the 12 hours required for graduation.
3. The School requires that students initiate a request for a review of graduation requirements at the beginning of the anticipated term of graduation. Failure to file the request may delay graduation.
4. Two semesters/proficiency in Foreign Language is required of all majors.
5. Completion of a 24 hour residency requirement in the major after being admitted. Courses in the major taken prior to admission to the major may meet specific requirements and will count toward the total University hours, but a School residency requirement of 24 hours must be met.

Transfer Limitation
Generally, students may not substitute lower division courses taken at community colleges for upper division courses in the School of Communication (except Florida common numbered coursework). Students wishing to transfer courses from other colleges must apply for equivalency credit. College catalog, course syllabus, textbook used, or other supporting information must be provided by the student. The Divisions of the School of Communication will evaluate applications for equivalency. [See School Residency requirement above.]

MINORS
The School of Communication offers the following minors:
1. Interpersonal Communication
   COM 3311 (3), SPC 3301 (3), and 15 credit hours chosen from:
   COM 3011 (3), SPC 3425 (3), SPC 4330 (3), SPC 4350 (3), SPC 4540 (3), COM 4461 (3) or COM 4462 (3).
2. Organizational Communication
   COM 3120 (3), COM 3311 (3), and 15 credit hours chosen from:
   COM 3011 (3), COM 3110 (3), SPC 3425 (3), SPC 3445 (3), COM 4461 (3) or COM 4462 (3).
3. Mass Communication
   18 credit hours chosen from: ADV 4000, FIL 3400, FIL 3410, JOU 3004, MMC 4200, PUR 4000, RTV 3000, or RTV 4403.

Bachelor of Arts: Interpersonal Communication

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college requirements.
3. Required Courses
   COM 3011 Communication and Human Relations 3 hours
   COM 3311 Communication as a Behavioral Science 3 hours
   ENC 3210 Business Report Writing 3 hours
   SPC 3301 Interpersonal Communication 3 hours
   SPC 3425 Group Interaction and Decision Making 3 hours
   SPC 3601 Advanced Public Speaking 3 hours
   or
   SPC 3511 Argumentation and Debate 3 hours
   SPC 4330 Nonverbal Communication 3 hours
   SPC 4350 Studies in Listening 3 hours
   SPC 4540 Attitudes and Communication 3 hours
   SPC 4440 Group Dynamics 3 hours
4. Restricted Electives
   Six credit hours in the School of Communication
5. Electives A minimum of 9 upper division credit hours in one department outside the
   School of Communication.

Total Semester Hours Required

A maximum of 3 credit hours of internship may be earned in one semester. A total of 6
may be earned within the 120 credit hours required for graduation. Students should check
with their advisor for prerequisites and other requirements.

Bachelor of Arts: Journalism

Admission Requirements
1. An overall minimum 2.25/4.00 grade point average based on a minimum of 30 credit
   hours of college work. Note: meeting the minimum GPA does not guarantee admission
   since students are admitted on a space available basis. THE GPA CUT OFF FOR
   1993-1994 WAS 2.75.
2. Passage of a basic grammar examination involving basic proficiency in grammar, punctua-
   tion, and word usage. Testing is conducted prior to and throughout each semester
   and remedial options are provided.
3. Passage of a Keyboard Proficiency Test (20 wpm). The test may be taken ONLY three
times. Completion of a basic college keyboard or typing course with a grade of "C" will
   satisfy the requirement.
4. See Undergraduate Degree Requirements
5. Required Courses: Students must select and complete one of the areas of specializa-
   tion listed below.
6. Restricted Electives (See Area of Specialization)
7. Electives (See Area of Specialization)

AREAS OF SPECIALIZATION
1. Required Courses: News-Editorial Track
   JOU 3004 History of American Journalism 3 hours
   JOU 3100* News Reporting 3 hours
   JOU 3101* Advanced News Reporting 3 hours
   JOU 3200 Editing I 3 hours
   JOU 3201* Editing II 3 hours
   JOU 4104* Public Affairs Reporting 3 hours
   JOU 4300* Feature Writing 3 hours
   MMC 4200 Mass Communication Law 3 hours
   MMC 4602 Contemporary Media Issues 3 hours
   PGY 3610 Photojournalism I 3 hours

Restricted Electives
   JOU/PGY Elective 3 hours
   *Prerequisite Grammar Proficiency Examination and Typing Proficiency Test required.
   Some courses may also require a minimum grade of "C" in prerequisite courses.

   The Journalism faculty strongly recommends that News-Editorial majors work for the stu-
   dent newspaper, The Central Florida Future. In addition, News-Editorial majors may obtain
   an off-campus internship, with a commercial weekly or daily newspaper, or with a magazine.
   To enroll for credit, students must have a 2.5 GPA in their required major courses. Students
   with less than a 2.5 GPA will not be given academic internship credit. A maximum of 3 credit
   hours may be earned in one semester, with a total of 3 within the 120 required for gradu-
   ation. Students should consult with their adviser for prerequisites and other requirements.

Required Minor:
   News-Editorial majors must complete a minor in an academic area outside of the School
   of Communication or complete a 15-credit hour area of concentration approved by the
   Faculty.
2. Required Courses: Advertising/Public Relations Track
   ADV 4000 Principles of Advertising 3 hours
   ADV 4003 Advertising Layout and Copywriting 3 hours
   ADV 4101* Advertising Copy and Campaigns 3 hours
   ADV 4103 Radio-TV Advertising 3 hours
Bachelor of Arts: Organizational Communication

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or school requirements.
3. Required Courses (27 credit hours)
   - COM 3011 Communication and Human Relations 3 hours
   - COM 3110 Business and Professional Speaking 3 hours
   - COM 3120 Organizational Communication 3 hours
   - COM 3311 Communication as a Behavioral Science 3 hours
   - COM 4941 Internship 3-6 hours
   - ENC 3210 Business Report Writing 3 hours
   - PUR 4000 Principles of Public Relations 3 hours
   - ADV 4000 Principles of Advertising 3 hours
   - SPC 3425 Group Interaction and Decision Making 3 hours
   - SPC 3445 Leadership 3 hours
   - SPC 4440 Group Dynamics 3 hours

4. Restricted Electives
   Six (6) to Nine (9) credit hours in the School of Communication

5. Electives
   A minimum of 9 upper-division credit hours in one department outside the School of Communication.

Total Semester Hours Required: 120

Bachelor of Arts: Radio-Television

Admission Requirements
1. An overall minimum 2.25/4.00 grade point average based on a minimum of 30 credit hours of college work. Note: meeting the minimum GPA does not guarantee admission since students are admitted on a space available basis. THE GPA CUT OFF FOR 1993-1994 WAS 2.75.
2. Passage of a basic grammar examination involving basic proficiency in grammar, punctuation, and word usage. Testing is conducted prior to and throughout each semester and remedial options are provided.
3. Passage of a Keyboard Proficiency Test (20 wpm). The test may be taken ONLY three times. Completion of a basic college keyboard or typing course with a grade of "C" will satisfy the requirement.
### Degree Requirements

1. See Undergraduate Degree Requirements
2. See Special college and/or School requirements.
3. **Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTV 3000</td>
<td>Foundations of Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>RTV 3200</td>
<td>Broadcast Techniques</td>
<td>4</td>
</tr>
<tr>
<td>RTV 3210</td>
<td>Radio Production</td>
<td>4</td>
</tr>
<tr>
<td>RTV 3260</td>
<td>Electronic Field Production</td>
<td></td>
</tr>
<tr>
<td>RTV 3300*</td>
<td>Broadcast Newswriting</td>
<td>4</td>
</tr>
<tr>
<td>RTV 3501*</td>
<td>Broadcast Copywriting</td>
<td>3</td>
</tr>
<tr>
<td>RTV 4403</td>
<td>Radio/Television and Society</td>
<td>3</td>
</tr>
<tr>
<td>RTV 4700</td>
<td>Broadcast Regulations</td>
<td>3</td>
</tr>
<tr>
<td>RTV 4800</td>
<td>Broadcast Management</td>
<td>3</td>
</tr>
</tbody>
</table>

4. **Restricted Electives**

- Foundations of Broadcasting
- Broadcast Techniques
- Radio Production
- Electronic Field Production
- Broadcast Newswriting
- Broadcast Copywriting
- Radio/Television and Society
- Broadcast Regulations
- Broadcast Management

Six credit hours in the School of Communication

5. **Electives**

| Total Semester Hours Required | 120 |

Students are encouraged to work with WUCF radio to gain practical experience. In addition, students should arrange for an internship off campus in a professional broadcast, production, or corporate operation. A maximum of 3 credit hours of internship may be earned in one semester. A total of 6 credit hours of internship may be earned within the 120 credit hours required for graduation. A maximum of 3 credit hours of internship may be counted as a Restricted Elective. Summer internships are available during "C" term only. Students should consult with their advisor for prerequisites and other requirements.

*Prerequisite Grammar Proficiency Examination and Typing Proficiency Test required.*
Bachelor of Arts: Motion Picture Technology

Limited Access
Access to this program is based on a selective set of requirements which differ from other School of Communication majors. Students meeting the minimum requirements for admission will be admitted on a space available basis. The basic requirements for admission consideration to the Motion Picture Technology program are:

1. An overall 3.0 grade point average based on a minimum of 45 credit hours of college work
2. Submission of a written essay
3. A portfolio or additional information should be submitted
4. A maximum of three courses in film completed prior to acceptance into the program may be counted toward the major.

NOTE: Applications are accepted ONLY once per year. See paragraph on School Admission Application.

Graduation Requirements
Students will be required to continue to meet the following minimum standards after acceptance into the Motion Picture Technology program.

1. An overall 3.0 grade point average.

Degree Requirements
1. University graduation requirements
2. Special College and/or School requirements
3. Required Courses: Students must select and complete one of the areas of specialization listed below.
4. Restricted Electives (See Area of Specialization)
5. Electives
### Areas of Specialization

1. **Required Courses: General Production/Screenwriting**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIL 3100</td>
<td>Introduction to Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3200</td>
<td>Introduction to Film Production</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3300</td>
<td>Documentary Film</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3400</td>
<td>History of the Motion Picture</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3922</td>
<td>Film Colloquium</td>
<td>2</td>
</tr>
<tr>
<td>FIL 3503</td>
<td>Film Theory</td>
<td>3</td>
</tr>
<tr>
<td>FIL 4201</td>
<td>Intermediate Film Production</td>
<td>3</td>
</tr>
<tr>
<td>FIL 4208</td>
<td>Film Director</td>
<td>3</td>
</tr>
<tr>
<td>FIL 4601</td>
<td>Production Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Sequence Electives: Six (6) credit hours FIL courses.  
Total Semester Hours Required: 25 hours

2. **Required Courses: Animation**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIL 3100</td>
<td>Introduction to Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3200</td>
<td>Introduction to Film Production</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3242</td>
<td>Introduction to Cel Animation</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3400</td>
<td>History of the Motion Picture</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3410</td>
<td>History of Animated Film</td>
<td>3</td>
</tr>
<tr>
<td>FIL 3922</td>
<td>Film Colloquium</td>
<td>2</td>
</tr>
<tr>
<td>FIL 4201</td>
<td>Intermediate Film Production</td>
<td>3</td>
</tr>
<tr>
<td>FIL 4231</td>
<td>Intro to Computer Animation</td>
<td>3</td>
</tr>
<tr>
<td>FIL 4932</td>
<td>Intermediate Computer Animation</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Sequence Electives: Six (6) credit hours FIL courses.  
Total Semester Hours Required: 28 hours

A maximum of three (3) credit hours of internship may be earned in one semester. A total of six (6) may be earned within the 120 credit hours required for graduation. Check with your adviser for prerequisites and other requirements.

### DEPARTMENT OF COMPUTER SCIENCE

**Chair:** T. Frederick, CCII 205, Phone (407) 823-2341  
**Faculty:** Bassiouni, Brigham, Cottrell, Deo, Driscoll, Dutton, Frederick, Gerber, Gomez, Goudreau, Guha, Hua, Hughes, Lang, Leeson, Lindholm, Lobo, Moshell, Mukherjee, Orooji, Shah, Vemulapati, Workman.

The Department of Computer Science offers courses and programs leading to Bachelor of Science, Master of Science (see Graduate Catalog), and Doctor of Philosophy (see Graduate Catalog) degrees in Computer Science. In addition, the Department offers a general minor in Computer Science and a minor in Applied Computer Science.

Computer Science strives to meet the computer personnel needs of the scientific, business, and industrial community by producing graduates with a broad base of formal courses as well as a concentration in selected areas. In addition, the Department conducts research in programming systems/languages, information systems, computer architecture, computational methods, and other areas.

The Department requires that students initiate a request for a review of graduation requirements at the beginning of the anticipated term of graduation. Failure to file the request may delay graduation.

### Computer Facilities

The Department of Computer Science provides computer laboratories for our faculty and students, for a variety of courses and research projects. Computing equipment consists of several large servers including a Sun SparcServer 690MP, several Sun-3, SPARC, and Silicon Graphics workstations, over thirty terminals (both traditional and X-terminals), fourteen dial-up modems, and a collection of Macintoshes and DOS/Windows platforms. Laboratory space now totals over 4500 square feet, 1200 of which were recently added to support the Center for Parallel Computation. All major systems are networked and run Unix, X-Windows, NFS, and a variety of programming languages such as FORTRAN, Pascal, Ada, C, C++, Concurrent C, Lisp and Prolog. Graduate students and faculty are the primary users of departmental resources while the campus central computing facility provides computing resources for undergraduates.

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115
Research Laboratories
Numerous Sun-3 and Sun-4 (SPARC) workstations, DECStation 5000's and 3100's, a NeXT computer, and Silicon Graphics Personal Iris and 4D70 workstations are available for research and graduate instruction in VLSI design, computer graphics and image processing. Viewlogic, Lager, and Berkeley VLSI CAD tools MAGIC and OCT run on our Sun workstations.

Our Center for Parallel Computation houses a DECmpp 12000 (MasPar MP-1) with 8,192 processors and a BBN Butterfly GP1000+ parallel computer with 64 processors and a total of 256 Megabytes of memory. The new laboratory for undergraduates uses this state-of-the-art equipment providing access through six DECstation 5000's and six terminals.

The Visual Systems Laboratory contains an Evans and Sutherland ESIG 500 real time image generator, three Silicon Graphics Iris workstations, several Sun SPARCstations, a Sun 386i, two NeXT computers, and many Macintoshes and PCs. The Intelligent Systems Laboratory has a Symbolics 3653 LISP machine. The Computer Vision Laboratory centers around a SparcServer 670MP connected to SparcStations and a collection of imaging equipment.

Many laboratory systems support Smalltalk and a variety of other object-oriented programming languages. The graphics workstations have state-of-the-art drawing, animation, rendering and scene management software, and constraint software used in physical modeling. Parallel processing software includes parallel C and FORTRAN compilers (for the DECmpp 12000, and the Butterfly) parallel computer simulation software (for Hypercube and GAPP architectures) and parallel environments C-Linda, PVM, PCN and the Cosmic Cube from Calltech.

Other Facilities
Other computing facilities available to students and faculty include an IBM 4381 with VM/CMS and several large clusters of IBM PCs and PS/2s scattered around the campus and interconnected via a Novell network. A workstation lab for UNIX access for undergraduates was established in Spring 1993.

Gateways
All the department's computers are interconnected by local and campus-wide Ethernets, and linked to the outside world via the Internet. The campus network includes connections to the Central Florida Research Park, near the main campus, and to the state network, which affords access to supercomputer cycles on the Cray Y-MP at the Supercomputer Research Institute in Tallahassee. In addition, the department is directly linked to the Internet, affording on-line access to other computer systems around the world.

MINORS
The Department of Computer Science offers the following minors, each consisting of a minimum of 18 semester hours of computer science coursework. A minimum grade of C is required in each course. At least nine hours must be completed from the courses taught by UCF Department of Computer Science.

1. Minor in Applied Computer Science
   a. Required courses (7 hours): CGS 1060, COP 2500, 3210
   b. Restricted Electives: at least 5 hours from CAP 3xxx, 3xxx, 3xxx, 3xxx, 3xxx, CAD 3xxx, 3xxx, 3xxx, COP 3xxx, 3xxx, 3xxx
   c. Electives: coursework approved by the CS department to complete the total of 18 semester hours.

2. General Computer Science Minor
   a. Required courses (12 hours): COP 2500, 2501, 3400, 3530.
   b. Restricted Electives: at least 6 hours from COP 3402, 4020, 4124, 4600, 4710, COT 3100, 4500.

Bachelor of Science: Computer Science

Degree Requirements
1. A four-semester-hour Biology course with a laboratory is required, and this requirement is to be satisfied by BSC 1020C, BSC 1030C or BSC 2010C.
2. Two semesters of credit normally selected from foreign languages. With prior department approval, cultural/multi-cultural or related courses may be used to satisfy this departmental requirement.

3. GPA Requirements
   a. A minimum GPA of 2.0 in all course work;
   b. A minimum grade of "C" in each required course (these courses are those in Section 5 below);
   c. A minimum GPA of 2.5 in upper division required courses (these courses are listed in section 5.11 below). Only the highest grade for a course is used in determining this GPA requirement.

4. Departmental Residency Requirement: At least eighteen semester hours of regularly scheduled 4000- and 5000-level courses must be taken from the UCF Computer Science Department.

5. Required courses:
   
   I. COMPUTER SCIENCE CORE: 42 hours
      
      Computer Science Courses
      COP 2500 Computer Science I 3 hours
      COP 2501 Computer Science II 3 hours
      COP 3400 Assembly Language 3 hours
      COP 3402 Computer Systems Concepts/Programming 3 hours
      COT 3100 Introduction to Discrete Structures 3 hours
      COP 3530 Computer Science III 3 hours
      Support Courses
      MAC 3311 Calculus with Analytic Geometry I 4 hours
      MAC 3312 Calculus with Analytic Geometry II 4 hours
      STA 3023 Statistical Methods I 3 hours
      PHY 3048 Physics for Engineers & Scientists I 3 hours
      PHY 3049 Physics for Engineers & Scientists II 3 hours
      PHY 3049L Physics for Engineers & Scientists Lab. II 1 hour
      EEL 3341C Introduction to Digital Circuits 3 hours
      ENC 3241 Technical Report Writing 3 hours
   
   II. UPPER DIVISION REQUIRED COURSES: 12 hours
      
      CDA 4150 Introduction to Computer Architecture 3 hours
      COT 4210 Discrete Computational Structures 3 hours
      COP 4020 Programming Languages I 3 hours
      COP 4600 Programming Systems 3 hours
   
   III. RESTRICTED ELECTIVES: 16 hours
      
      a. At least ten hours of 4000- and 5000-level computer science courses.
      b. At least four hours of mathematics and/or statistics, exclusive of independent study. Course work must be selected from 4000- and 5000-level Mathematics/Statistics courses and the following courses: MAC 3313, MHF 3104, MAP 3302, MAS 3105, MAS 3106.
      c. The remaining two hours can be more courses from (a) or (b) or from the following courses: ACG 2023, MAN 3025, MAE 3023, FIN 3403, MAN 3301, EEL 4701C.
      d. At most four hours of independent study in computer science may be used.

6. Electives

<table>
<thead>
<tr>
<th>Total Semester Hours Required</th>
<th>120</th>
</tr>
</thead>
</table>

**Bachelor of Arts: Economics**

**Contact Person:** J. Boyte, FA 202, Phone (407) 823-2492

The Bachelor of Arts in Economics is designed to provide students with a liberal arts background to serve as a strong foundation for future graduate studies or as training for a career in politics, teaching, research, social services and a variety of other areas. Successful completion of this program leads to the Bachelor of Arts degree with a major in Economics.

**Degree Requirements**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 2013</td>
<td>Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3101</td>
<td>Intermediate Price Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3203</td>
<td>Aggregate Economic Conditions Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3411</td>
<td>Quantitative Methods and Business Decision Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Restricted Electives

a. Select Six Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 3233</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3401</td>
<td>Mathematical Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3622</td>
<td>American Economic History</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3703</td>
<td>International Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 3723</td>
<td>International Commercial Policy</td>
<td>3</td>
</tr>
<tr>
<td>ECO 4303</td>
<td>History of Economic Thought</td>
<td>3</td>
</tr>
<tr>
<td>ECO 4412</td>
<td>Economic Statistics and Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 4504</td>
<td>Economics of the Public Sector</td>
<td>3</td>
</tr>
<tr>
<td>ECP 3004</td>
<td>Seminar in Current Economic Topics</td>
<td>3</td>
</tr>
<tr>
<td>ECP 3203</td>
<td>Contemporary Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECP 3433</td>
<td>Transportation Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECP 4403</td>
<td>Business, Government &amp; Industrial Organization</td>
<td>3</td>
</tr>
<tr>
<td>ECP 4603</td>
<td>Urban and Regional Economic Problems</td>
<td>3</td>
</tr>
<tr>
<td>ECP 4703</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECS 4003</td>
<td>Comparative Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECS 4013</td>
<td>Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>ECS 4303</td>
<td>Economics of European Integration</td>
<td>3</td>
</tr>
</tbody>
</table>

b. Twenty-seven hours of additional courses, including the completion of a minor from one of the following areas: Computer Science, Mathematics, Statistics, or the Social and Behavioral Sciences.

5. Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECP 4000</td>
<td>Seminar in Current Economic Topics</td>
<td>3</td>
</tr>
<tr>
<td>ECS 4003</td>
<td>Comparative Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECS 4013</td>
<td>Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>ECS 4303</td>
<td>Economics of European Integration</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Semester Hours Required 120

DEPARTMENT OF ENGLISH

Chair: J. Schell, FA 301, Phone (407) 823-2212
Faculty: Adicks, Astro, Barnes, Bartkevicius, Bell, Brain, Donnelly, Flammia, George, Greenberg, Hemschemeyer, Jaffe, Jones, Keller, Lilley, Murray, Omans, Rushin, Schiffhorst, Seidel, Smith, Sommer, Stap, Umphrey, Wyatt

The Department of English is responsible for the effective teaching of language and literature in English, including World Literature, and creative, expository, and technical writing. Students may concentrate in creative writing, technical writing, or literature. The Department serves the broad needs of the University with course offerings in writing and literature for students from other departments. The department has a Technical Documentation Writing Lab and also publishes The Florida Review and The Cypress Dome.

An Honors in English program provides an enriched course of study for exceptional students, leading to graduation with honors. Program description follows concentration degree plans.

Foreign Language proficiency equivalent to three semesters is required of all majors. Only courses with a grade of "C" or better may be applied to the English Major and Minor. Transfer students are expected to complete at UCF a majority of their hours in an English major or minor.

MINOR

The Department of English offers the following minors:

Creative Writing Minor: 21 semester hours from the following: CRW 3003, CRW 3100 or CRW 3300 or CRW 3410, CRW 4122 or CRW 4320 or CRW 4420. 12 hours from CRW 3310, CRW 4114, CRW 5932, and any of the above courses not already used.
Literature Minor: 21 semester hours with no fewer than 12 completed at UCF. Requirements: 12 semester hours selected from ENL 3010, ENL 3021, ENL 4373, AML 3031, AML 3051, LIT 2110, LIT 2120. 9 additional semester hours of English courses chosen by the student and advisor.

Linguistics Minor: 18 semester hours. Required courses: LIN 3010, LIN 4100, LIN 4341, 9 remaining hours to be chosen from LIN 4202, LIN 4612, LIN 4801, LIN 4660, LIN 5137, ANT 3610, PHI 4220, or any course approved by the Linguistics Committee.

Technical Writing and Editing Minor: 22 semester hours, as follows: ENC 2290, 3211, 3311, 4215, 4218, 4293, 4294, 4295. Students completing the minor may intern with a Central Florida corporation.

Bachelor of Arts: English
1. See Undergraduate Degree Requirements
2. See special College and/or department requirements
3. Required courses
   Foundation (for all concentrations)
   Choose two of the following three:
   - LIT 3000 Introduction to Literary Interpretation 3 hours
   - CRW 3003 Creative Writing for English Majors 3 hours
   - ENC 3211 Introduction to Technical Writing 3 hours

   Choose three of the following four:
   - ENL 3010 English Literature I 3 hours
   - ENL 3021 English Literature II 3 hours
   - AML 3031 American Literature I 3 hours
   - AML 3051 American Literature II 3 hours

4. Restricted Electives
   (See Literature, Creative Writing, and Technical Writing concentrations below.)

5. Electives
   To be selected primarily from upper level courses with advisor’s approval.

Total Semester Hours Required 120
CONCENTRATIONS

1. Literature
   Required (9 hours)
   - AML 3031, AML 3051, ENL 3010, or ENL 3021 not completed in core  3 hours
   - ENL 4311 Chaucer
   - or
   - ENL 4341 Milton  3 hours
   - or
   - ENL 4330 Shakespeare  3 hours
   - or
   - LIN 3010 Principles of Linguistics  3 hours
   - or
   - LIN 4100 History of the English Language  3 hours
   Choose 12 hours from the 3000 or 4000 level courses offered under AML, ENL, and LIT prefixes.

2. Creative Writing
   Choose Two (6 hours)
   - CRW 3100 Fiction Writing
   - CRW 3300 Poetry Writing
   - ENC 3310 Magazine Writing
   - CRW 3410 Script Writing
   Choose Two (6 hours)
   - CRW 4120 Fiction Writing Workshop
   - CRW 4320 Poetry Writing Workshop
   - CRW 4410 Script Writing Workshop
   Writing workshop may be repeated once for credit.
   Choose One (3 hours)
   - CRW 3310 Structure of Verse
   - CRW 4172 History of Prose Style
   - CRW 3008 Literary Magazines
   Choose Two (6 hours)
   - ENL 4311 Chaucer
   - ENL 4330 Shakespeare
   - ENL 4341 Milton and His Age
   - LIN 3010 Principles of Linguistics
   - LIN 4100 History of the English Language

Technical Writing
   Required (Basic) (4 hours)
   - ENC 2290 Careers in Writing  1 hour
   - ENC 3311 Advanced Expository Writing  3 hours
   Required (Advanced) (24 hours)
   - ENC 4293 Technical Documentation I  3 hours
   - ENC 4294 Technical Documentation II  3 hours
   - ENC 4295 Technical Documentation III  3 hours
   - ENC 4215 Techniques of Technical Publication  3 hours
   - LIT 4433 Survey of Technical and Scientific Literature  3 hours
   - ENC 4218 Graphics Capabilities  3 hours
   - ENC 4280 Technical Vocabulary  3 hours
   - ENC 3283 Science and the Lay Reader  3 hours
   Optional
   - ENC 4941 Technical Writing and Editing Internship  3 hours

Honors in English Requirements:
1) Application and admission through the English Honors Coordinator;
2) Fulfill University requirements for Honors in the Major;
3) Grade of "B" or better in Honors Seminar (3 hours). Bibliography and Research Methods (1 hour), one 5000 level English elective (3 hours), and Director Readings (3 hours). (Honors Seminar and Directed Readings substitute for one restricted elective and one English core course);
4) Successful completion and oral defense of honors thesis.
DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES

Chair: J. B. Fernández, FA 201, Phone (407) 823-2472
Faculty: Barsch, Cervone, Crant, Decker, Del-Rio, DiPierro, Fernández, Micarelli, Patrone, Payas, Redmon, Taylor

Language studies in the College of Arts and Sciences provide instruction in Chinese, French, German, Hebrew, Italian, Japanese, Latin, Russian, and Spanish, with majors in French, Spanish, and a combination of two languages. These programs are designed to meet the needs of students who desire competency in a language and expanded understanding of a foreign culture and literature. Students enrolled in the 1000-level language sequence are required to utilize the Language Media Center for at least one hour a week.

Students wishing to major in a foreign language must meet all the requirements for graduation as set forth by the University, the College of Arts and Sciences, and by the Department of Foreign Languages and Literatures. They must complete 36 semester hours in the single language major or 39 semester hours in the combination major, at the 3000 level or above.

ADVICEMENT: Because of the various options open to language majors, it is obligatory that they have an adviser. Students must contact the Department of Foreign Languages & Literatures to be assigned an adviser, since students must meet with their adviser before registering for courses in their major. Furthermore, class schedules must be approved by their adviser each semester. For continuing students, the meeting with an adviser must take place in the semester preceding the semester of registration. Failure to fulfill this obligation could result in delaying graduation.

PLACEMENT: Normal placement is as follows: Four years of one high school language would place the student, at the University level, in the first semester of the third year; three years, in the second semester of the second year; two years, in the first semester of the second year; one year, in the second semester of the first year.

A native or near-native-speaker language major must substitute alternate upper-division Spanish and French courses for the Spanish 3241 and French 3244 conversation courses. Also, a native or near-native French speaker must substitute an alternate upper-division French course for FRE 4790 (French Phonetics and Diction). In cases where native speakers have received advanced education abroad, they will not be permitted to take the composition course (3420) for the fulfillment of their major requirements but must substitute a literature course chosen in consultation with an adviser in the department.
CREDIT BY EXAMINATION: Language credit will not be given in courses lower in level than those in which students are presently enrolled. Native speakers will be allowed Credit by Examination in literature courses only.

Foreign Language State Teacher Certification may be obtained through the Department of Foreign Languages. The Certificate qualifies students to teach foreign languages at the elementary and/or high school levels.

MINORS: The Department of Foreign Languages offers minors in French, German, Italian, Russian, or Spanish. Required courses: 18 semester hours at the 3000-level or above in one language, including the 3000-level conversation and composition courses. A native or near-native speaker must substitute an alternate upper division course for the conversation course.

PROFICIENCY: In colleges or departments where a Foreign Language Proficiency Requirement exists, it can be met by passing an appropriate portion of the Proficiency Exam, or by completing the appropriate coursework. See page 97 for a list of departmental language proficiency requirements.

Bachelor of Arts: French or Spanish

Degree Requirements:
A student may receive a Bachelor of Arts degree, with a major in French or Spanish, by completing with a grade of "C" or better, 36 credits in the foreign language major. These credits must be in courses at the 3000 level or above, with at least two courses at the 4000 level. Grades of "D" or below may not be counted toward the major. The following courses must be taken for the major in French or Spanish:

- Conversation: 3 credits
- Composition: 3 credits
- Survey of Literature: 6 credits
- Two of the following Linguistics courses: 6 credits
  - French Phonetics and Diction: (3 credits)
  - Romance Philology: (3 credits)
  - Spanish Morphosyntax: (3 credits)
  - Spanish American Syntax: (3 credits)
  - Spanish Phonetics: (3 credits)
- Total: 18 credits
- Foreign Language Electives (at least two courses in literature beyond the survey level): 18 credits
- Grand Total: 36 credits**

* Spanish majors must take both semesters of the Survey of Spanish Literature (SPW 3100 and 3101) OR both semesters of the Survey of Latin American Literature (SPW 3130 and 3131).

** Not more than six hours out of the 36 required may be taken in Foreign Language courses not taught in the foreign language.

Bachelor of Arts: Foreign Language Combination

Degree Requirements
A student may receive a Bachelor of Arts degree, with a major in a Foreign Language Combination, by completing with a grade of "C" or better, 24 credits in a first language and 15 credits in a second. These credits must be in courses at the 3000 level or above, with at least two courses at the 4000 level. Language combinations may consist of French, German or Spanish as a first language and any of those three as a second language, as well as Italian or Russian.

In the first language, the following courses must be taken as part of the required 24 credits:
- Conversation: 3 credits
- Composition: 3 credits
- Survey of Literature: 6 credits
- One of the following Linguistics courses: 3 credits
  - French Phonetics and Diction: (3 credits)
  - Romance Philology: (3 credits)
  - German Phonetics and Diction: (3 credits)
Spanish Morphosyntax: (3 credits)
Spanish American Syntax: (3 credits)
Spanish Phonetics: (3 credits)

Language Electives: 9 credits
Total: 24 credits

In the second language, the following courses must be taken as part of the 15 required credits:
- Conversation: 3 credits
- Composition: 3 credits
- Language Electives, chosen with adviser: 9 credits
Total: 15 credits
Grand Total: 39 credits

* If Spanish is the first language, two semesters of the Survey of Spanish Literature (SPW 3100 and 3101) OR two semesters of the Survey of Latin American Literature (SPW 3130 and 3131) must be taken.

SUMMER STUDY ABROAD PROGRAMS
The Department of Foreign Languages and Literatures has been offering a Summer Study program in Spain since 1972, in Italy since 1975, and one in Canada since 1989. These programs are approved by the Board of Regents and are expected to be offered annually. Credit courses are available in these programs in the language, (all levels), art, and civilization of France, Italy, or Spain. These programs are open to all students of the State University System of Florida and to others as well.

Jonquière, Quebec, Canada
Jonquière is a modern city of 60,000 in the picturesque Lac Saint-Jean region, about 150 miles north of Québec City. Students live with French-speaking families, receive 6 hours of classroom instruction in French each weekday, and pledge to use only French at all times during the program. Participants earn 8 credits. Educational weekend excursions and a number of sociocultural activities are included. The program takes place during Summer A.

Jena, Germany
Courses in German language and civilization are offered at all levels. Students are housed at the Jena University campus and have an opportunity to visit other cities in Germany.

Urbino, Italy
The city of Urbino, on the slopes of the Eastern Appennines, is one of the major centers for the study of Renaissance art and architecture. The modern university sponsors a number of conventions of learned societies and cultural events in the summer. Courses in Renaissance art and modern Italian letters are given in English; language courses are conducted in Italian.

St. Petersburg, Russia
This program is offered in cooperation with the Hertzen Pedagogical Institute of St. Petersburg. Courses in Russian art, language and civilization are offered at all levels. Visits to points of historical and cultural interest in St. Petersburg and Moscow will be made.

Madrid, Spain
This program is intended for students who wish to begin or continue their study of Spanish language and civilization. Language courses will be offered from the beginning level through the advanced. Business Spanish, the Art of Spain, and Contemporary Spanish History will also be offered. In addition, students will have an opportunity to visit major places of cultural and artistic interest in Spain.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)
The Department of Foreign Languages and Literatures offers three (3) courses in ESOL and expects to receive State approval of an ESOL Endorsement Program soon.
DEPARTMENT OF HISTORY

Chair: Richard C. Crepeau, FA 544, Phone (407) 823-2224

Faculty: Colbourn, Evans, Fernandez, Fetscher, Greenhaw, Kallina, Leckie, Pauley, Shofner

Students majoring in history must complete a minimum of 36 hours in history courses. At least 6 hours must be selected from each of three different geographical areas, such as: United States, Europe, Asia, or Latin America. Grade of “D” or below may not be counted toward the major.

The Foreign Language Requirement for the B.A. in History is identical to that of the University, one year. However the History Department strongly encourages its majors who are even contemplating going on to graduate school to complete two years of a foreign language, preferably in a language that would be functional in their area of historical interest. The History Department will provide each of these students with the opportunity to take the language proficiency examination which is given to History graduate students, and will certify their proficiency.

History majors who are interested in a pre-law program should work closely with their advisors in selecting major courses and electives which will best prepare them for law school. These students should use their electives for additional courses in history as well as English, speech, and philosophy. Such a course of study will prepare them for success in law school and will concomitantly provide a broad liberal education.

The History Department encourages its majors, especially those in American History, to develop their statistical and computer skills by completion of appropriate course work in the Department of Statistics.

The Department participates in the programs in Women's Studies, American Studies, Afro-American Studies, Canadian Studies, and Latin American Area Studies.

MINOR

The Department of History offers a minor consisting of a minimum of 18 semester hours.

Required courses: 18 semester hours of history, twelve of which must be at the 3000-4000 level. Grade of “D” or below may not be counted toward the minor.

Bachelor of Arts: History

Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

3. Required Courses
   - AMH 2010
   - AMH 2020
   - EUH 2000
   - EUH 2001

4. Restricted Electives
   - None

5. Electives
   - To be selected with approval of the student’s advisor

Total Semester Hours Required

AREA OF SPECIALIZATION

1. Russian Area Studies. The History Department participates in the Russian Area Program. For information consult with Dr. John Evans.

2. Latin American Area Studies. The History Department participates in the Latin American Area Studies Program. For information consult with Dr. Jose B. Fernandez.

JUDAIC STUDIES PROGRAM

Director: Moshe Pelli; FA 521, Phone (407) 823-5039 or 823-2251

The Interdisciplinary Program in Judaic Studies offers both a Minor and a Certificate (but not a major). The Program cooperates with the departments of English, Foreign Languages, History, Philosophy, Political Sciences, and Sociology/Anthropology, and with the Liberal Studies Program.

The program offers instruction, conducts research, and disseminates knowledge in the civilization of the Jewish people from Biblical times to the present day in the major dimensions of its creativity: literature, language, religion, philosophy, law, and social, political and
economic organization. Because the roots of western culture and civilization and major world religions lie in ancient Jewish thought and practice as manifested in the Hebrew Bible and subsequent writings, Jewish Studies form an essential component of the university curricula.

The program is designed to serve students pursuing careers in general or Jewish education, in international and Middle-Eastern affairs, in languages or liberal arts, in the ministry or rabbinate, and in the community at large.

The Minor requires the completion of 18-upper-division credit hours in Jewish History (JST 3401, 3402, 3550), literature, such as HBR 3930 (Literature of the National Renaissance), HBT 3800 (Israeli Short Story), JST 3100 (Survey of Jewish Literature), JST 3751 (Literature of the Holocaust), LIT 4373 (Literature of the Bible), the Hebrew Bible (JST 3200 Introduction to Hebrew Scriptures), and culture, such as JST 3620 (Modern Hebrew Culture), JST 3810 (the Jewish National Movement), and JST 3550 (Introduction to Modern Judaism). In addition, students must complete the lower-division one year of Introductory Hebrew (HBR 1120, 1121). Hebrew language courses satisfy foreign language requirements. The program also offers a certificate in Judaic Studies for students completing 15 credits (five courses) in Judaic Studies.

See listings and courses under HBR, HBT, HMW, JST, and REL, and cross-listed courses in the Department of Foreign Languages.

LATIN AMERICAN AND IBERIAN AREA STUDIES PROGRAM

The minor in Latin American Area Studies offers a broad interdisciplinary approach to the understanding of Latin America and its peoples. The minor requires the completion of 18 semester hours selected from courses listed in the Foundation Areas. In addition, students must complete the introductory language sequence (or its equivalent) in French or Spanish. For information contact Professor Jose B. Fernandez, FA 505, (407) 823-5389.

FOUNDATIONS AREAS

Anthropology
ANT 3328 Mayan Archaeology 3 hours
ANT 3322 Peoples and Culture of Latin America 3 hours
ANT 3163 Mesoamerican Archaeology 3 hours
ANT 4124 Seminar in Laboratory Analysis 3 hours
ANT 4180 Advanced Archaeological Fieldwork 9 hours

Art
ARH 4655 Meso American Art 3 hours
ARH 4690 Mexican Art Fieldwork 1 hour

Economics
ECO 2013 Principles of Economics I 3 hours
ECO 3703 International Economics 3 hours

Foreign Languages
SPN 2230 Intermediate Spanish Language and Civilization I 3 hours
SPN 2231 Intermediate Spanish Language and Civilization II 3 hours
Any upper division Spanish Language, Literature, Business or Civilization Course.

History
EUH 4932 Modern Spain 3 hours
LAH 3230 Latin American History I 3 hours
LAH 3200 Latin American History II 3 hours
LAH 3470 History of Mexico and Central America 3 hours
LAH 3470 History of the Caribbean 3 hours

Political Science
CPO 4303 Comparative Latin American Politics 3 hours
INR 4243 International Politics of Latin America 3 hours
CPO 3034 Politics of Developing Areas 3 hours
NOTE: In addition to the courses listed in the Foundation Areas, Independent Study, Special Topics and Study Abroad courses offered through the College of Arts and Sciences can be applied to the Minor upon approval by the Program Director.

LIBERAL STUDIES PROGRAM
Program Coordinator: Dr. Terri Fine
Academic Advisors: Dennis R. Kamrad, Judy Monroe, Joanne Muratori, Judith Boyte, FA 202, Phone (407) 823-0144.

The Liberal Studies Program offers students the opportunity to pursue interdisciplinary studies through two different programs of study, the Liberal Arts Track and the General Studies Track.

The Liberal Arts Track

Purpose
The Liberal Arts Track is a Bachelor of Arts degree program available to students seeking an individualized, interdisciplinary, non-traditional major within the College of Arts and Sciences. The Liberal Arts Steering Committee, composed of faculty from the College of Arts & Sciences, coordinates and approves curricular decisions for this track.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See Special College Requirements
3. Foreign Language — The B.A. requires 2 semesters of proficiency in foreign language; 3 or 4 semesters may be desirable in some programs, particularly Letters.
4. Required Courses
   Students must complete areas A through D as identified below, for a minimum of 51 semester hours and maintain a grade point average of 2.5 in all Liberal Arts Track courses.
   A. Students will be required to take an approved course in ethics and an approved course in critical thinking. 6 hours
   B. Students must complete twelve hours of approved courses with each of two of the following areas:
      Fine Arts
      Natural Sciences
      Social Sciences
      Letters
      Approved courses for each track, including a course in methodologies, are available from advisors. Alternatively, the Liberal Arts Committee may approve an individually designed curriculum developed by a student and his/her advisor. 24 hours
   C. Students must complete either a minor from those offered at UCF, or an approved individually designed minor program of study, for a minimum of 18 hours.
   D. Students may choose to complete two (2) minors from those offered at UCF, rather than a minor and two areas of twelve hours each (described in B above). Students must complete all other requirements. minimum 36 hours
   E. Students must conclude their program with an Undergraduate Thesis, or an undergraduate capstone seminar. 3 hours

Total Required 51 hours

The General Studies Track

Purpose
The General Studies Track is a university-wide program leading to either the Bachelor of Arts or the Bachelor of Science in Liberal Studies, depending on the majority of course areas selected.
The program is administered through the College of Arts and Sciences and is designed for general studies education and academic flexibility. It recognizes that there are many combinations of courses which meet the needs of individual students.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See Special College Requirements
3. Required Courses
   Students must complete three different subject area concentrations from those specified below. A minimum of 18 hours is required in each subject area concentration. Generally, courses used to meet General Education requirements can not be used in the subject areas and courses used in one of the subject areas must be satisfied by the completion of a minor from those offered at UCF. This includes minors from individual departments as well as interdisciplinary minors from individual departments as well as interdisciplinary minors such as American Studies, African American Studies, Women’s Studies, and others. See “Academic Minors” in the Catalog for the complete list and the College or Department that awards each minor. Students are strongly encouraged to take upper level courses in each area; the minimum requirement for graduation is 48 hours of upper level courses. A minimum grade point average of 2.0 is required in each of the subject areas.
   Total Required (minimum) 54 hours
4. The B.S. requires one course with a multicultural dimension, or one course in college-level foreign language, or one semester of proficiency.
5. The B.A. requires 2 semesters or proficiency of foreign language. A third or fourth semester may be desirable, depending on the student’s program.

Course Subject Areas
Students must complete three different course subject areas, including at least one minor, from those listed below:

1. Arts
   18 hours of approved courses in Art, Music, or Theatre, or a minor in Music (21 hours), Theatre (29 hours), Art History (24 hours), Studio Art (24 hours), or Community Arts (18 hours).

2. Behavioral and Social Sciences
   18 hours of approved courses in Anthropology, Psychology, Sociology, Political Science, Economics, or Cultural Geography, Social Work or a minor in Political Science (18 hours), Psychology (22-25 hours), Anthropology (21 hours), or Sociology (18 hours).

3. Biological Sciences
   18 hours of approved courses, or a minor in Biology (28 hours).

4. Business Administration
   18 hours of approved courses in Business Administration, or a minor in Business Administration (24 hours).

5. Communication
   18 hours of approved courses in Communication, or a minor in Interpersonal Communication (18 hours) Organizational Communication (18 hours), or Mass Communication (18 hours).

6. Computer Science
   18 hours of approved courses, or a minor in General Computer Science (18 hours).

7. Education
   Students who were previously majors in the College of Education may utilize a maximum of 18 hours of approved courses.

8. Engineering
   18 hours of approved courses in Engineering, or 18 hours of approved courses in Engineering Technology, or a minor in Technology and Society (18 hours).
9. Health
18 hours of approved courses, or
a minor in Health Sciences (18 hours), Health Services Administration (18 hours), or a minor in Molecular Biology and Microbiology (30 hours).

10. Humanities
18 hours of approved courses in History, Philosophy, Humanities, or Judaic Studies, or
a minor in History (18 hours), Philosophy (21 hours), or Judaic Studies (18 hours).

11. Languages
18 hours of approved courses in Chinese, French, German, Hebrew, Italian, Japanese, Latin, Russian, or Spanish, or a minor in French (18 hours), German (18 hours), Italian (18 hours), Russian (18 hours), Spanish (18 hours), Asian Studies (21 hours), Judaic Studies (18 hours), Latin American Area Studies (18 hours), or Russian Area Studies (18 hours).

12. Letters
18 hours of approved courses in English, Foreign Literature, or Comparative Literature, or
a minor in Creative Writing (21 hours), Literature (21 hours), Linguistics (18 hours), or Technical Writing and Editing (22 hours).

13. Mathematical Sciences
18 hours of approved courses in mathematics and statistics, or
a minor in Mathematics (21 hours) or Statistics (18 hours).

14. Physical Sciences
18 hours of approved courses in Astronomy, Chemistry, Forensic Science, Physical Geography, Geology, Physics, or Meteorology, or
a minor in Chemistry (28 hours) or Physics (20 hours).

15. Public Affairs
18 hours of approved courses, or
a minor in Criminal Justice (18 hours), Legal Studies (18 hours), or Public Administration (21 hours).

16. Air Force or Army ROTC
18 hours of approved courses, or
a minor in Aerospace Studies (16 hours), or a minor in Military Science (19 hours).

Interdisciplinary minors:
17. African American Studies minor (16 hours minimum).
18. American Studies minor (21 hours minimum).
19. Canadian Studies minor.
20. Women's Studies minor (18 hours).
DEPARTMENT OF MATHEMATICS
Chair: L. Debnath, PH 403, Phone (407) 823-6284

The Department of Mathematics offers courses and programs which lead to a Bachelor of Science in Mathematics, a minor in mathematics and a Master of Science in Mathematical Science. (See the Graduate Studies catalog for a description of the M.S. in Mathematical Science.)

The programs in mathematics are designed to serve (1) students who wish to pursue careers in mathematics after having completed a baccalaureate degree; (2) students who wish to continue their education in graduate and professional schools; and (3) students who need to use mathematics as a tool in their specialty areas.

In order to serve such a wide variety of students, the courses and programs in the Department of Mathematics have developed along several lines. There are the usual service courses in precalculus and calculus along with strong programs in the upper division in the traditional areas of algebra and analysis and applied mathematics.

A limited number of student assistantships are available for qualified graduate and undergraduate students.

HONORS COURSES
Currently, the Department of Mathematics offers special courses for students in the Honors Program. These are listed as MAC 3311H, MAC 3312H, MAC 3313H, MAC 3930H, and MAP 3302H.

MINOR
The Department of Mathematics offers the following minor consisting of a minimum of 21 hours. All courses used for a minor in mathematics must be completed with a grade of "C" or better.

Required Courses: MAC 3311, 3312, 3313, MAP 3302.
(MAC 3311 and 3312 may be waived by the Department Standards Committee for a student with adequate high school preparation in calculus.)

Restricted Electives: A minimum of two courses selected from MHF 2300, MAA courses, MAD courses, MAP courses, MAS courses, or MTG courses. (Either MAS 3105 or MAS 3106 may be used but not both. Courses may be selected from MAA 4226, 4227, or MAA 5211 but not both.) These two courses must be taken from the Department of Mathematics at UCF.

Bachelor of Science: Mathematics

Degree Requirements
1. See Undergraduate Degree Requirements
2. A grade of "C" or better is required for all mathematics courses.
3. See special college and/or department requirements
   All mathematics courses except for MAC 3311, 3312, 3313, and MAP 3302 must either be taken from the Department of Mathematics at UCF or must be approved by the Mathematics Department Standards Committee. The Department suggests that students consider taking MAS 3105 (Elementary Linear and Matrix Algebra) before taking MAS 3106 (Linear Algebra). MAS 3105 will then be used as an elective. Foreign Language proficiency equivalent to two semesters is required.

4. One course selected from
   ENC 3241 Technical Report Writing 3 hours
   ENC 3310 Magazine Writing 3 hours
   ENC 3311 Advanced Expository Writing 3 hours

5. AREA OF SPECIALIZATION
   a. Mathematics Option
<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Year Sequence</strong></td>
<td></td>
</tr>
<tr>
<td>MAC 3311 Calculus I (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>STA 3023 Statistical Methods I (F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAC 3312 Calculus II (Sp)</td>
<td>4 hours</td>
</tr>
<tr>
<td>MHF 2300 Logic and Proof (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>BSC 2010 General Biology (Sp)</td>
<td>4 hours</td>
</tr>
<tr>
<td><strong>2nd Year Sequence</strong></td>
<td></td>
</tr>
<tr>
<td>MAC 3313 Calculus III (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>MAS 3105 Elementary Linear and Matrix Algebra (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>PHY 3048 Physics for Engineers &amp; Scientists I (F)</td>
<td>3 hours</td>
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<tr>
<td>PHY 3048L Physics Lab I (F)</td>
<td>1 hour</td>
</tr>
<tr>
<td>MAP 3302 Differential Equations (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAS 3106 Linear Algebra (Sp)</td>
<td>4 hours</td>
</tr>
<tr>
<td>PHY 3049 Physics for Engineers &amp; Scientists II (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>PHY 3049L Physics Lab II (Sp)</td>
<td>1 hour</td>
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<tr>
<td><strong>3rd Year Sequence</strong></td>
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<tr>
<td>MAP 4363 Applied Boundary Value Problems I (F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>STA 4321 Statistical Theory I (F)</td>
<td>3 hours</td>
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<tr>
<td>COP 2500 Programming I (F)</td>
<td>3 hours</td>
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<tr>
<td>MAS 4301 Algebraic Structures (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>SAT 4322 Statistical Theory II (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>COP 2501 Programming II (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td><strong>4th Year Sequence</strong></td>
<td></td>
</tr>
<tr>
<td>MAA 4226 Advanced Calculus I (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>MAA 4227 Advanced Calculus II (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAD 4203 Combinatorics and Graph Theory (F)</td>
<td>3 hours</td>
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<tr>
<td>MTG 4302 Introduction to Topology (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAP 4307 Applications of Complex Variables (F)</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

A minimum of 4 hours selected from upper-division or graduate mathematics or statistics courses or from COT 4500, COT 5510, COT 4210 or ENG 4634. (MAC 3233, 3253, 3254, MAE 3817 and MAA 5211 may not be used.) One additional course in either the biological or physical sciences must be taken. This course must be approved by the Department Standards Committee.

b. Applied Mathematics Option

<table>
<thead>
<tr>
<th>1st Year Sequence</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 3311 Calculus I (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>STA 3023 Statistical Methods I (F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAC 3312 Calculus II (Sp)</td>
<td>4 hours</td>
</tr>
<tr>
<td>MHF 2300 Logic and Proof (Sp)</td>
<td>4 hours</td>
</tr>
<tr>
<td>BSC 2010 General Biology (Sp)</td>
<td>4 hours</td>
</tr>
<tr>
<td><strong>2nd Year Sequence</strong></td>
<td></td>
</tr>
<tr>
<td>MAC 3313 Calculus III (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>MAS 3105 Elementary Linear and Matrix Algebra (F)</td>
<td>4 hours</td>
</tr>
<tr>
<td>PHY 3048 Physics for Engineers &amp; Scientists I (F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>PHY 3048L Physics Lab I (F)</td>
<td>1 hour</td>
</tr>
<tr>
<td>MAP 3302 Differential Equations (Sp)</td>
<td>3 hours</td>
</tr>
<tr>
<td>MAS 3106 Linear Algebra (Sp)</td>
<td>4 hours</td>
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<td>PHY 3049 Physics for Engineers &amp; Scientists II (Sp)</td>
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<td>PHY 3049L Physics Lab II (Sp)</td>
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<td>MAD 4203 Combinatorics &amp; Graph Theory (F)</td>
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<td>MAP 4153 Vector and Tensor Analysis (F)</td>
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<td>MAP 4307 Applications of Complex Variables (F)</td>
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<td>MAP 4363 Applied Boundary Value Problems I (F)</td>
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<td>COP 2500 Programming I (F)</td>
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<tr>
<td>STA 4321 Statistical Theory I (Sp)</td>
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<td>MAP 4364 Applied Boundary Values Problems II (Sp)</td>
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<td>STA 4322</td>
<td>Statistical Theory II (Sp)</td>
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<td>MAA 4226</td>
<td>Advanced Calculus I (F)</td>
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<td>COT 4500</td>
<td>Numerical Calculus (F)</td>
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<td>MAP 4103</td>
<td>Math Modeling (Sp)</td>
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</table>

4th Year Sequence

**Applied Electives**
- One course selected from upper division or graduate mathematics or statistics courses or from COT 5510 or COT 4210. (MAC 3233, 3253, 3254, MAE 3617 and MHF 4404 may not be used.) One additional course in either the biological or physical sciences must be taken.

**From an approved list**

6. Electives
The number of hours depends on the courses chosen to satisfy university requirements and the area of specialization. The courses used as electives must be approved by the Department Standards Committee.

**Total Semester Hours Required**

120

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**DEPARTMENT OF MUSIC**

Chair: L. Brodie, FA 105A, Phone (407) 823-2869
Assistant Chair: J. Gardner

The Department of Music offers a Bachelor of Music degree with options in performance and piano pedagogy; a Bachelor of Arts Degree in performance; and a Bachelor of Music Education Degree with specializations in instrumental, choral and elementary school music.

The Music Education programs are approved by the Florida State Department of Education. Students who wish to be certified to teach in elementary and secondary schools should consider a major in Music Education. Courses leading to teacher certification are offered cooperatively with the College of Education. Master of Arts and a Master of Education degrees in Music Education are offered by the College of Education.

The Music Department is fully accredited by the National Association of Schools of Music.

Music organizations on campus include Pi Kappa Lambda, Phi Mu Alpha, Sigma Alpha Iota, Tau Beta Sigma, Kappa Kappa Psi, University Vocal Society, Gospel Choir, MIDI User Group and a Student Chapter of Music Educators National Conference.

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**SPECIAL PERFORMANCE AND MUSIC EDUCATION ENTRANCE REQUIREMENTS**

In order to be accepted as a music or music education major, the student must perform an audition. Each student must demonstrate an advanced level of proficiency by performing compositions representing a variety of musical periods. Memorization is required for pianists and vocalists. Accompanists will be furnished only upon request prior to the audition. Each candidate must bring music for the compositions he or she intends to perform. The department will provide large instruments such as the tuba, string bass, or tympani for these auditions. All smaller instruments must be brought to the University. The audition will serve as a placement examination for accepted candidates.

As a prerequisite to formal admission to the State Approved Program of Teacher Education students must:

1. score at or above the 40th percentile of all college-bound persons tested on the American College Testing Program (ACT, score 20) or the Scholastic Aptitude Test (SAT, score 840) and have this score reported as part of their official academic record
2. have an overall G.P.A. of 2.5
3. have satisfactorily completed EDG 4321 (Teaching Strategies)
4. have passed the College Level Academic Skills Test (CLAST)
5. submit a formal junior student teaching application to the College of Education Student Internships Office. Must meet the College of Education's requirements for admission to Junior and Senior Year Student Teaching.

131
Since July 1, 1980, all applicants for a teaching certificate in Florida must pass a written competency examination administered by the Florida State Department of Education.

Since July 1, 1982, all applicants for their First Regular Florida Teaching Certificate must satisfy requirements of the Florida Beginning Teacher Program.

COMPREHENSIVE EXAMINATIONS

Comprehensive examinations in music theory and music history should be taken by students during their junior year. Ear-training, sight-singing, part-writing, and visual analysis examinations will be offered during the fall and spring semester; the music history examination will be offered during the spring. [See policy regarding recitals and student teaching.]

POLICY REGARDING MAJOR ENSEMBLE PARTICIPATION

1. In order to graduate, Bachelor of Music students must spread their required 8 semester hours of major ensemble credit over at least 8 separate semesters; Bachelor of Arts students must spread their required 6 semester hours of major and/or minor ensemble credit over at least 6 separate semesters.
2. The following ensembles are defined as major ensembles: chorus, symphony orchestra, concert band, marching band, and wind ensemble.*
3. Vocal music education majors may elect to substitute 1 hour of band or orchestra or 1 hour of the minor ensemble requirement, provided they have sufficient facility on an appropriate instrument.
4. Assignment to major ensembles will be made by the ensemble directors.
5. Undergraduate students taking a course in Performance must take concurrently a major ensemble appropriate to their principal instrument.

*Jazz lab may be counted as one half the total number of required major ensembles.

POLICY REGARDING MINOR ENSEMBLE PARTICIPATION

1. In order to graduate, B.M. students must spread their required 4 semester hours of minor ensemble credit over at least 3 separate semesters; B.A. students who have a total of 6 semester hours of major or minor ensembles in 6 semesters must spread their required 2 semester hours of minor ensemble credit over at least 2 separate semesters.
2. The following ensembles are defined as minor ensembles: Brass Ensembles, Percussion Ensembles, Piano Ensembles, String Ensembles, Vocal Ensembles (except Opera Workshop), Woodwind Ensembles, Jazz Lab.*

*Jazz lab may be counted as one half the total number of required major ensembles.

Bachelor of Music students must complete all but one of their required comprehensive examinations before they will be permitted to audition for their senior recital. Bachelor of Arts and Bachelor of Music Education students must complete three of their comprehensive examinations prior to auditioning for their 30-minute public recital. B.M.E. students must complete all but one of their required comprehensive examinations before they will be permitted to do their senior student teaching. B.M.E. students may not give their required recital during the semester of their senior student teaching. Their student teaching must be done in the area of their specialization.

MINOR

The Department of Music offers a Minor in Music. The requirements are as follows:
1. A successful audition on the student’s principal instrument or voice.
2. A minimum of 21 semester hours credit to include the following or their equivalent: MUT 1111, MUT 1112 (4 hours); MUT 1241, MUT 1242 (2 hours); MUL 2010 (3 hours); major ensemble credit spread over at least 4 separate semesters (4 hours); 2 semesters of performance level I (4 hours) and 2 semesters of performance level II (4 hours) on the same performance medium.
3. A minimum of 11 semester hours of these required courses, including two semesters of a major performing organization and two semesters of performance level II, must be completed at UCF.
5. A GPA of 2.0 is required for all music courses attempted, whether used to fulfill these requirements or not.
Bachelor of Music: Performance

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses [both specialization]
   - MUS 1010: Music Forum (8 semesters) 0 hours
   - MUT 1111, 1112, 2116, 2117, 3561: Music Theory 10 hours
   - MUT 1241, 1242, 2246, 2247, 3248: Ear Training and Sight Singing 5 hours
   - MVK/MVS/MVW/MVB: Performance (8 semesters including 2 semesters of Level IV) 16 hours
   - MUH 4211, 4212: Music History** 6 hours
   - MUN: Major Ensemble (8 semesters)* 8 hours
   - MUN: Minor Ensemble (4 semesters) 4 hours
   - MVK: Class Piano I-IV (Not required of piano majors) 4 hours
   - MUG 3101: Basic Conducting 2 hours
   - Foreign Language 8 hours
   - Music Electives 14 hours

Any secondary performance course not in area of major instrument or any MUC, MUE, MUG, MUH, MUL, MUN, MUS, MUT courses numbered 3000 or higher. Up to one additional year of foreign language.

In partial fulfillment of their elective requirements, piano students must take Piano Literature (MUL 3400, 3401 — 2 hours each) for a combined total of 4 hours; voice students take Foreign Diction (FRE 1005, GER 1005, ITA 1005 — 1 hour each), Voice Pedagogy (MVV 4640, 4641 — 1 hour each), and Song Literature (MUL 3600, 3601 — 1 hour each) for a combined total of 7 hours; piano pedagogy students take Piano Literature (MUL 3400, 3401 — 2 hours each), Piano Pedagogy (MVK 4640, 4641 — 1 hour each), and Studio Teaching (MUS 4401) for 2 hours, for a combined total of 8 hours.

* Not required of piano/guitar majors
** Three semester hours of coursework in the General Education are satisfied by MVH 4212.

4. Restricted Electives
see above paragraph

Special Non-Course Requirements
1. Students are required to take piano until they meet the Piano Proficiency requirement.
2. Students must take music history, theory, ear training and sight singing comprehensive examinations.
3. Two faculty-approved public recitals: a junior recital of 30 minutes length and a senior recital of 45 minutes length. Students who select the Piano Pedagogy option will perform two faculty-approved thirty-minute recitals.
4. Residency requirements: 2 semesters of Performance Level IV; senior recital; history, theory, ear training, and sight singing comprehensive examinations.
5. At least 77 hours of credit must be earned in music courses.

Total Semester Hours Required 120 Hours

Bachelor of Arts: Music

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses [both specializations]

MUS 1010  Music Forum (6 semesters)  0 hours
MUT 1111, 1112, 2116, 2117, 3561  Music Theory  10 hours
MUT 1241, 1242, 2246, 2247, 3248  Ear Training and Sight Singing  5 hours
MVK/MVS/MVW/MVB  Performance (6 semesters including 2 semesters of Level III)  8 hours
MUH 4211, 4212  *Music History  6 hours
MUN  Major and Minor Ensembles (6 semesters)  6 hours
MVK  Class Piano I-IV (Not required of piano majors)  4 hours
Music Electives/Special Requirements  5 hours

Any MUC, MUE, MUG, MUH, MUL, MUS, MUT courses numbered 3000 or higher

In partial fulfillment of their elective requirements, piano students take Piano Literature (MUL 3400, 3401 — 2 hours each) for a combined total of 4 hours; voice students take Foreign Diction (FRE 1005, GER, 1005, ITA 1005 — 1 hour each) and Song Literature (MUL 3600, 3601 — 1 hour each) for a combined total of 5 hours.

4. Restricted Electives

see above paragraph

5. University Electives  35 hours

*Three semester hours of coursework in the General Education Program are satisfied by MUH 4212.

Special Non-Course Requirements

1. Students must take music history, theory, ear training, piano, and sight singing comprehensive examinations.
2. One faculty-approved thirty-minute recital.
3. Residency requirements: 2 semesters of Performance Level III; 2 ensembles, [each in a different semester]; MUT 3561; MUT 3248; 2 semesters of MUS 1010; history, theory, ear training, and sight singing comprehensive examinations; recital.

Total Semester Hours Required  120 hours

Bachelor of Music Education

Degree Requirements

1. See Undergraduate Degree Requirements
2. UCF Residency Requirements  33 hours
3. See special college and/or department requirements
4. Required Courses

MUS 1010  Music Forum (6 semesters)  0 hours
MUT 1111, 1112, 2116, 2117, 3561  Music Theory  10 hours
MUT 1241, 1242, 2246, 2247, 3248  Ear Training and Sight Singing  5 hours
MVB/MVK/MVP  Performance (6 semesters including 2 semesters of level III)  12 hours
MUN  Major Ensemble (6 semesters)  6 hours
MUN  Minor Ensemble  2 hours
MUH 4211, 4212  *Music History  6 hours
MUG 3101  Basic Conducting  2 hours
MUE 3460  Brass Techniques  1 hour
MUE 3470  Percussion Techniques  1 hour
MUE 3440  String Techniques  1 hour
MUE 3450  Woodwind Techniques  1 hour
EDF 3603  Analysis of Educational Foundations  3 hours
EDF 4214  Classroom Learning Principles  3 hours
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<td>Teaching Strategies</td>
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<td>MUE 4311</td>
<td>Elementary School Music Instructional Analysis</td>
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<td>Class Piano I-IV (Not required of piano majors)</td>
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<td>MVB/MBK/MVP</td>
<td>Performance IV</td>
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<td>MUE 3460</td>
<td>Woodwind Techniques (repeat)</td>
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<td>Marching Band Techniques</td>
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<td>MVO 3124</td>
<td>Recorder II</td>
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<td>EDE 4943</td>
<td>Special Topics in Elementary School Music (2 semesters)</td>
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**Minimum Total Semester Hours Required** 125-129

**Special Non-course requirements**

1. Students are required to take piano until they meet the Piano Proficiency requirements.
2. A faculty-approved public recital of at least 30 minutes length. (A recital is optional for the Elementary School Music Specialization).
3. History, theory, ear training, and sight singing comprehensive examinations.
4. Students graduating from UCF with a major in music education must complete their last two semesters of required performance; their recital, if required; and, their senior year student teaching while attending UCF.
5. A GPA of 2.5 is required for all courses attempted.

*Three semester hours of course work in the General Education Program are satisfied by MUH 4212.*
The Department of Philosophy offers a philosophy major and an interdepartmental humanities major, as well as minors in philosophy, humanities, and Asian studies.

NOTE: By the beginning of the fall semester of 1998, it is probable that the B.A. in Humanities will be deleted. Students who cannot satisfy the current requirements for this major (and this degree) by that date are advised to major instead in the Liberal Arts Option of the Liberal Studies Program, an option which will provide content as substantive and interdisciplinary as that of the present humanities major.

MINORS

The Department of Philosophy offers the following minors:

1. Philosophy

   Twenty-one semester hours.

   Selection of courses from an approved list, in consultation with a departmental advisor, with the following distribution: one course in critical thinking/logic, two courses in the history of philosophy, two courses in values and society, and two courses in philosophical analysis. For information, consult Dr. Donald Jones.

2. Multicultural Humanities

   Twenty-four to twenty-seven semester hours.

   The minor requires either 12 hours in each of two cultural traditions or 9 hours in each of three. Relevant areas include Asia, Middle East, Africa, Europe, the Americas, or others to be specified under advisement. Courses will be selected with the help of an advisor and should deal with subject matter from an interdisciplinary viewpoint sensitive to cultural context, tradition, and identity. Students interested in the Liberal Arts major will find this minor particularly helpful. For information, consult Dr. Dan White.

3. Asian Studies

   Twenty-one semester hours.

   An interdisciplinary minor in which seven UCF departments — Anthropology, Art, Economics, Foreign Languages and Literatures, History, Philosophy, and Political Science participate in order to offer students a basic and well-rounded background in the field. For information, consult Dr. Husain Kassim.

Bachelor of Arts: Philosophy

Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

3. Required Courses (24 semester hours)

   A. Regular Major (33 hours required)

      PHI 3xxx Critical Thinking
      PHI 3011 Philosophical Reasoning
      PHI 3130 Formal Logic I
      PHH 3100 Ancient Philosophy
      PHH 3400, or Modern Continental Philosophy, or
      PHH 3402 Modern British Philosophy
      PHH 3601, or Contemporary Continental Philosophy, or
      PHH 3620 Contemporary Analytic Philosophy
      PHI 3600 Ethics
      PHI 4360, or Epistemology, or
      PHI 4500 Metaphysics

      Electives: Nine upper-division hours in philosophy or related areas, with approval of advisor.

   B. Honors in Philosophy Requirements

      1. Admission to and continuing acceptance in University Honors Program.
      2. Satisfaction of all University requirements for Honors in the major.
      3. Grade of "B" or better in Honors Directed Readings (3 hours).
5. Thirty-three hours of courses to be selected with guidance and approval of Honors Advisor and Department Chair.

Electives: Students are encouraged to select courses from other disciplines that supplement training in philosophy.

Foreign Language: two semesters proficiency is required.

Bachelor of Arts: Humanities

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (24 semester hours)

4. Restricted Electives (24 semester hours, to be chosen with the help of an advisor and to include at least one course each in art, literature, music, and philosophy.)

5. Electives

DEPARTMENT OF PHYSICS

Chair: W. T. Sillvast, HPB 310, Phone (407) 823-2325

Faculty: Beck, Boileon, Bolte, Bose, Brennan, Caldwell, Chai, Chow, Elias, Guenther, Hagan, Heinonen, Johnson, Kim, Llewellyn, Luo, Miller, Neighbor, Peale, Renken, Richardson, Saha, Schulte, Sillvast, Soileau, Stegeman, Van Stryland

The Department of Physics offers B.S., M.S., and Ph.D. degrees. Students interested in being a physics major are encouraged to see, as soon as possible, a faculty advisor who will help the student to design a curriculum. An appointment to see the advisor is necessary prior to registration in each semester.

Physics is a basic science and coursework in physics helps to prepare a student for a variety of careers in industry and government, as well as teaching in schools, colleges and universities.

The undergraduate program emphasizes classroom as well as advanced laboratory experiences. The Departmental computer laboratory, including SUN workstations, is available to every physics major; many of the advanced courses require the use of FORTRAN and MATHEMATICA.
Advanced undergraduates are encouraged to be involved in special projects and research with faculty. Faculty research facilities are extensive in the areas of atomic, molecular, condensed matter, particle, and optical and laser physics.

Service courses required by other departments and colleges are offered regularly as well as courses for science education majors and a physical science course satisfying general education requirements.

**MINOR**

The Department of Physics offers a minor consisting of a minimum of 20 semester hours. Required courses: PHY 3048, 3048L, 3049, 3049L, 3101. The remaining 9 semester hours must be selected from appropriate upper-level lecture or laboratory courses.

**HONORS**

Honors sections of the introductory physics sequence are available to students with appropriate academic standing.

**Degree Requirements**

1. **General Undergraduate Degree Requirements.**
   
2. In addition to the degree requirements listed below for a B.S. in Physics, the following standards are required by the department for graduation. Approval as a special case by the department Undergraduate Affairs Committee must be requested for any waiver.
   
   (a) A minimum GPA of 2.0 for all courses used for a major in physics.
   
   (b) No credit toward graduation for a "D" grade in any physics or mathematics course required for a major in physics; a higher grade on repeating is acceptable.

3. Required courses. The courses listed, or departmentally approved equivalents, are required in the physics curriculum.

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<td>Differential Equations</td>
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<td>Physics For Scientists and Engineers I and II</td>
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<td>Physics For Scientists and Engineers III</td>
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<td>PHY 3101H (or 3101)</td>
<td>Introduction to Theoretical Methods</td>
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<td>PHY 3221</td>
<td>Mechanics I</td>
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<td>PHY 3503</td>
<td>Thermal and Statistical Physics</td>
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<td>PHY 3323, 4324</td>
<td>Electricity and Magnetism I &amp; II</td>
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<td>Physics of Scientific Instruments</td>
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<td>PHY 3802L</td>
<td>Intermediate Physics Laboratory</td>
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<td>PHY 4803L</td>
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<td>PHY 4812</td>
<td>Directed Independent Research</td>
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4. **Restricted Electives**

   Upper division courses approved by the advisor.

   A minimum of six hours of these must be PHY or PHZ courses. 15 hours

   **Total Semester Hours Required** 120

*Foreign Language Requirement in B.S. Program in Physics*

Physics majors are required to take FL 1120 and FL 1121 or take and pass a proficiency examination at the level of FL 1121 administered by the Department of Foreign Languages and Literatures. A native speaker will substitute advanced level courses in the language. Admission requirement in FL 1121 will be a passing grade in FL 1120.
The Department of Political Science seeks to (1) provide a broad background for careers in foreign and domestic public service and in the private sector where a knowledge of government and politics is necessary; (2) provide a broad background for and facilitate admission to law school through the prelaw emphasis; (3) prepare students for teaching, research, and graduate study in Political Science; (4) provide a broad background for careers in politics; and (5) educate citizens and promote their active interest in public affairs. Students should plan their major or minor in consultation with their departmental advisor according to their interests and career objectives.

Political Science courses are divided into three areas of specialization: American Politics and Policy; International Relations and Comparative Politics; and Political Theory. It is strongly recommended that majors planning to continue their education at the graduate level or to pursue a career in international fields acquire a working knowledge of a foreign language.

Canadian Studies: The Department of Political Science is the main contributor to the Canadian Studies Program. Interested students should contact Dr. M. Elliot Vittes.

Latin American Studies: The Political Science Department participates in the Latin American Studies Program. Contact Dr. Waltraud Q. Morales.

Russian Area Students: The Political Science Department participates in the Russian Area Studies program. Consult Dr. Henry Kennedy.

MINOR

The Department of Political Science offers minors consisting of a minimum of 18 semester hours in each minor.

1. Political Science
   Required courses: POS 2041. In the event a student has taken the varying credit POS 4941, only 3 semester hours from this course can be used in the minor. Four courses (12 semester hours) must be taken at senior institutions. Except for these requirements, students may select any other Political Science courses with the aid of an advisor.

2. Political Science/Prelaw
   Required courses: POS 2041, 4284; at least one from INR 4401, 4402, POS 4603, or POS 4604. In the event a student has taken the varying credit POS 4941, only 3 semester hours from this course can be used in the minor. Only two courses (6 semester hours) from a two-year institution will be accepted as part of the minor. Except for these requirements, students may select any other Political Science courses with the aid of an advisor.

3. A minimum GPA of 2.0 in the minor is required for graduation as a political science minor.

Bachelor of Arts: Political Science

Degree Requirements

1. See Undergraduate Degree Requirements
   Ten courses (30 semester hours) must be taken at senior institutions.

2. See special college and/or department requirements.

3. A minimum GPA of 2.0 in the major is required for graduation as a political science major.

4. Political Science majors must demonstrate proficiency in a foreign language equivalent to one year of college instruction.

5. Required Courses
   - POS 2041 American National Government 3 hours
   - POS 3703 Scope and Methods of Political Science 3 hours
   *This course should be completed by the second semester of the junior year.
6. Restricted Electives
Majors must choose from one of the following emphases for a minimum of 30 additional hours.

**Emphasis 1: American Politics and Policy**
- Five courses from area A: 15 hours
- Two courses from area B: 6 hours
- Two courses from area C: 6 hours
- One additional course from any area: 3 hours

**Emphasis 2: International Relations-Comparative Politics**
- Five courses from area B: 15 hours
- Two courses from area A: 6 hours
- Two courses from area C: 6 hours
- One additional course from any area: 3 hours

*No more than two of the following courses may be considered part of area B credit: INR 4401, INR 4402, INR 4404.

**Emphasis 3: Prelaw**
- POS 4284 Judicial Process and Politics: 3 hours
- One of the following: 3 hours
  - *POS 4603 American Constitutional Law I
  - POS 4604 American Constitutional Law II
  - INR 4401 International Law I
  - INR 4402 International Law II

*POS 4603 should ordinarily be taken before POS 4604.

- Five courses from either area A or area B: 15 hours
- Two courses from area A if area B is chosen above; or
- Two courses from area B if area A is chosen above: 6 hours
- One course from area C: 3 hours

Total Hours in Major: 36 hours

7. Electives
Total Semester Hours Required: 120

**AREAS OF SPECIALIZATION**
The Department courses are divided into three areas of specialization.

**A. American Politics and Policy**
- POS 3122 State Government
- POS 3443 Political Parties and Processes
- POS 3413 The American Presidency
- POS 3424 Congress and the Legislative Process
- PUP 3314 Minorities in American Politics
- POS 3235 Mass Media and Politics
- POS 3233 Public Opinion
- POS 3273 Voting and Elections
- POS 3173 Southern Politics
- POS 4246 Political Socialization
- POS 4603 American Constitutional Law I
- POS 4604 American Constitutional Law II
- POS 4284 Judicial Process & Politics
- POS 4412 Presidential Campaigning
- PUP 4323 Women and Politics
- POS 4142 Metropolitan Politics
- PUP 3204 Environmental Politics
- PUP 4003 American Public Policy
- PUP 4622 Politics and Civil Rights
- PUP 4503 Government and Science
- PUP 4602 Politics of Health
- POS 4265 Power and Policy in the United States
- PUP 4931 Topics in Public Policy
B. International Relations and Comparative Government

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<tr>
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<tr>
<td>INR 3002</td>
<td>International Relations</td>
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<tr>
<td>GEO 3470</td>
<td>World Political Geography</td>
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<tr>
<td>INR 4035</td>
<td>International Political Economy</td>
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<td>INR 4102</td>
<td>American Foreign Policy</td>
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<tr>
<td>INR 4114</td>
<td>American Defense Policy</td>
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<tr>
<td>INR 4115</td>
<td>Strategic Weapons and Arms Controls</td>
</tr>
<tr>
<td>INR 4224</td>
<td>Contemporary International Politics of Asia</td>
</tr>
<tr>
<td>INR 4243</td>
<td>International Politics of Latin America</td>
</tr>
<tr>
<td>INR 4225</td>
<td>Vietnam War</td>
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<td>INR 4335</td>
<td>Coercion in International Politics</td>
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<td>INR 4401</td>
<td>International Law I</td>
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<tr>
<td>INR 4404</td>
<td>Space Law</td>
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<td>INR 4502</td>
<td>International Organizations</td>
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<td>CPO 3034</td>
<td>Politics of Developing Areas</td>
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<td>CPO 3103</td>
<td>Comparative Politics</td>
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<td>CPO 3132</td>
<td>Introduction to Canadian Studies</td>
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<td>POS 3253</td>
<td>Contemporary Revolution and Political Violence</td>
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<td>CPO 4123</td>
<td>Government and Politics of Great Britain</td>
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<td>CPO 4284</td>
<td>Comparative Judicial Processes</td>
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<td>Comparative Latin American Politics</td>
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<td>CPO 4643</td>
<td>Government and Politics of the Soviet Union</td>
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<td>CPO 4024</td>
<td>Non-Western Politics</td>
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<td>CPO 4133</td>
<td>Government and Politics of Canada</td>
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<td>CPO 4445</td>
<td>Comparative Political Parties</td>
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<td>PUP 4510</td>
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<td>PUP 3508</td>
<td>Introduction to Space Studies</td>
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C. Political Theory

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<td>Modern Political Ideologies</td>
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<tr>
<td>POT 3204</td>
<td>American Political Thought</td>
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<tr>
<td>POT 4003</td>
<td>Political Theory</td>
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<tr>
<td>POT 4314</td>
<td>Contemporary Democratic Theory</td>
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<tr>
<td>POT 4025</td>
<td>Ancient, Medieval and Early Modern Political Philosophy</td>
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<td>POT 4054</td>
<td>Modern Political Philosophy</td>
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<td>POT 4206</td>
<td>Political Psychology</td>
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<td>POT 4414</td>
<td>Marxist Political Theory</td>
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<td>POT 4066</td>
<td>Contemporary Political Theory</td>
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</tbody>
</table>

Prelaw: Political Science

While no specific major is prescribed for admission to law school, many prelaw students elect to major in political science. These individuals usually choose the prelaw emphasis within the political science major.

Prelaw students are encouraged to work closely with a prelaw advisor in planning their programs. By judicious use of electives, the student builds a firm foundation for law school entry and acquires a broad training which can result in career options upon graduation. For further information, consult one of the Department’s prelaw advisors.

1. Some suggested electives Include:

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<tr>
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<tr>
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<td>Principles of Financial Accounting</td>
</tr>
<tr>
<td>ACG 2301</td>
<td>Principles of Managerial Accounting</td>
</tr>
<tr>
<td>BUL 3111</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>PLA 3105</td>
<td>Legal Research</td>
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<tr>
<td>PLA 3155</td>
<td>Legal Writing</td>
</tr>
<tr>
<td>PHI 3130</td>
<td>Formal Logic I</td>
</tr>
<tr>
<td>PHI 3131</td>
<td>Formal Logic II</td>
</tr>
<tr>
<td>MHF 2300</td>
<td>Logic and Proof in Mathematics</td>
</tr>
<tr>
<td>ENC 3311</td>
<td>Expository Writing</td>
</tr>
<tr>
<td>LIN 4100</td>
<td>History of the English Language</td>
</tr>
<tr>
<td>PHI 3100</td>
<td>Critical Thinking</td>
</tr>
</tbody>
</table>
Internship Program: Political Science
For students who excel, a limited number of internships may be available each semester for 3 to 6 hours of credit. Under the Internship Director, the student is typically placed in an office of local, state, or national government, a law office, or campaign headquarters.

DEPARTMENT OF PSYCHOLOGY
Interim Chair: M. Thomas, PH 302, Phone (407) 823-2216
Associate Chair: A. Wang, PH 342, Phone (407) 823-2216

The undergraduate program provides a general preparation in Psychology with the option to select an emphasis area from a variety of subfields. Suggested emphasis area course listings are available in the department. Successful completion of the specified program of at least 41 hours leads to the Bachelor of Arts degree with a major in Psychology. The Bachelor of Science option is also available. For more detailed information on the psychology curriculum, students should consult the Psychology Advisement Handbook. This handbook may be obtained in the campus bookstore under the Careers in Psychology class (PSY 2013).

MINOR
The Psychology Department offers minors in several emphasis areas, including Clinical Psychology, Human Factors Psychology, and Industrial/Organizational Psychology. The guiding principle in design of a minor is to select those Psychology courses which will strengthen the graduate school preparation and/or the marketability of the student’s major program. Therefore, a minimum of 22-25 credit hours are required, 3 in Statistics, and 19-22 in Psychology, including PSY 2013 (3 hours) and PSY 3214 (4 hours). The additional 12 (or more) hours are to be taken with the approval of the Psychology Department’s Undergraduate Program Coordinator. The additional hours will generally follow suggested course lists which are available in the Department.

Bachelor of Arts/Bachelor of Science: Psychology

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Foreign Language Requirements:
   B.A. — 3 semesters/proficiency or 2 semesters/9 hours diversity track
   B.S. — 2 semesters/proficiency plus 9 hours from the Science/Math option
4. Required Courses
   PSY 2013 General Psychology 3 hours
   PSY 2023 Careers in Psychology 1 hour
   PSY 3214 Research Methods 4 hours
   PSY 3204 Statistical Methods in Psychology 4 hours
   EXP 3404 Basic Learning Processes 4 hours
   PSB 3002 Physiological Psychology 4 hours
5. Restricted Electives
   a. Psychology Department (any two)
      CLP 3143 Abnormal Psychology 3 hours
      DEP 3004 Developmental Psychology 3 hours
      PPE 3003 Personality Theory 3 hours
      SOP 3004 Social Psychology 3 hours
   b. Statistics Department (one of the two)
      STA 2014 Principles of Statistics 3 hours
      STA 3023 Statistical Methods I 3 hours
   c. B.S. Option (9 hours, from the following courses):
      COP 2500 Computer Science I 3 hours
      COP 2501 Computer Science II 3 hours
      CGS 3000C Computer Fundamentals for Business Applications 3 hours
MAC 3233  |  Concepts of Calculus  |  3 hours
MAC 3253  |  Applied Calculus I  |  3 hours
PCB 3063, 3063L  |  Genetics with Lab  |  3 hours
PCB 3703C  |  Human Physiology with Lab  |  4 hours
STA 4102  |  Computer Programming of Statistical Data  |  3 hours
ZOO 3733C  |  Human Anatomy with Lab  |  4 hours
d. For a list of approved diversity courses, consult the Psychology Advisement Handbook.

6. Minimum GPA requirements for graduation:
   a. For the baccalaureate — a minimum psychology GPA of 2.5 with no grade less than a C in a psychology course.
   b. For the minor — a minimum psychology GPA of 2.5 in all courses counting toward the minor.

7. Electives
   A total of 12 semester hours in other courses offered by the Psychology Department taken in accordance with the student's interests and career goals and with the consent of the advisor.
   
   | Total Hours Required Outside Major | 3 |
   | Total Hours Required in Major      | 38 |
   | Total Semester Hours Required      | 120 |

Honors in Psychology
The Honors in Psychology is available to those undergraduate psychology majors who have distinguished themselves academically. The opportunity to pursue this recognition is limited to those students who show outstanding scholarship and promise in the field of psychology. To qualify for Honors in Psychology, students must attain junior standing and meet or surpass GPA and course prerequisites (further information is found in the Undergraduate Psychology Handbook). The two-course honors sequence begins in the Fall semester with directed readings (PSY 4903H) and concludes with the successful defense of an honors thesis in the Spring (PSY 4970H). Interested students must contact the Psychology Chairperson or Director of Undergraduate Program in Psychology and present a written commitment from a faculty sponsor who will direct the student through the honors sequence.

RUSSIAN AREA STUDIES
Five UCF departments, Foreign Languages, History, Political Sciences, Sociology, and Philosophy, have pooled their resources to offer a minor to students interested in Russian Area Studies a basic and well-rounded background in the field. The philosophy of the program is to offer students a multidisciplinary approach to the subject, so as to allow them to grasp the subject in its complexity and to understand linguistic, cultural, historical, political, and socio-economic interrelationships.

Interested students should register for the minor with Dr. Richard Crepeau, Department of History, FA 551 (407) 823-2224. For further information consult any of the above mentioned departments.

Bachelor of Science: Social Sciences
Contact Person: J. Boyte, FA 208, Phone (407) 823-2492

The Social Sciences program offers students an opportunity to become acquainted with the various fields of the Social Sciences and to better understand the relationships between those fields. Satisfactory completion of the program leads to the degree Bachelor of Science with a major in Social Sciences.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses
   None

143
4. Restricted Electives
   a. Choose one
      POS 3703  Scope and Methods of Political Science  3 hours
      PSY 3214  Research Methods (Psychology)  3 hours
      SYA 3300  Research Methods (Sociology)  3 hours
   b. A minimum of 15 semester hours in each of four Social Science disciplines. The following are the required courses for each discipline selected.

   Communication
   RTV 4403  Radio, Television and Society  3 hours
   or
   JOU 3003  History of American Journalism  3 hours
   COM 3311  Communication as a Behavioral Science  3 hours

   Economics
   ECO 2013  Principles of Economics I  3 hours
   ECO 2023  Principles of Economics II  3 hours

   Political Science
   POS 2041  American National Government  3 hours

   Psychology
   PSY 2013  General Psychology  3 hours
   PPE 3003  Personality Theory  3 hours

   Public Service Administration
   PAD 3003  Introduction to Public Administration  4 hours
   CCJ 3020  Criminal Justice System  4 hours
   or
   PLA 3013  Law and the Legal System  4 hours

   Sociology
   SYG 2000  General Sociology  3 hours
   ANT 2003  General Anthropology  3 hours

5. Electives
   Total Semester Hours Required  120

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Chair: D. Fabianic, FA 405, Phone (407) 823-2227
Faculty: Carey, A. Chase, D. Chase, Cook, Dees, Ehrhardt, Gay, D. Jones, Lynxwiler, Morris, Stearman, Wallace

The Department of Sociology and Anthropology offers a Bachelor of Arts in Sociology and Anthropology. Students should consult with their advisor early in their academic careers to select an area of specialization within the Department or if they plan to pursue graduate work.

MINORS
The Department offers the following minors:
1. Anthropology
   Required Courses: ANT 3211, ANT 3410, ANT 3422, ANT 3511; and a minimum of 9 semester hours of Anthropology. No more than 6 semester hours of transfer credit in anthropology will be accepted toward the minor, and no more than 6 semester hours of 1000/2000 credit can be applied. The minimum number of semester hours required is 21.

2. Sociology
   Required Courses: SYG 2000, SYO 3000; and a minimum of 12 semester hours of Sociology courses. No more than 6 semester hours of transfer credit will be accepted toward the minor, and no more than 6 semester hours of 1000/2000 credit can be applied. The minimum number of semester hours required is 18.

Bachelor of Arts: Sociology

Degree Requirements
The Sociology curriculum is designed to provide students a basic curriculum which emphasizes critical examination of various components of society. The purpose of the curriculum is to increase students' social awareness and ability to employ a sociological per-
spective to interpret social institutions and behavior. A minimum of 45 semester hours is required for a major.

1. See Undergraduate Degree Requirements
2. A minimum GPA of 2.0 for all courses used for a major or minor in Sociology.
3. Required Courses (21 semester hours)
   - SYG 2000 General Sociology 3 hours
   - SYA 3110 Development of Social Thought 3 hours
   - or
   - SYA 3120 Modern Sociological Thought 3 hours
   - SYA 3300 Research Methods 4 hours
   - SYA 3400 Research Methods and Statistics 4 hours
   - SYO 3360 Social Organization & Human Relations 3 hours
   - or
   - SYP 4000 Sociological Social Psychology 3 hours
   - SYA 4450 Data Analysis (PR: SYA 3300 and SYA 3400) 4 hours
4. Restricted Electives
   Majors must choose a minimum of 24 semester hours from the courses listed below:
   - SYG 3010 Social Problems 3 hours
   - SYA 4650 Applied Sociology 3 hours
   - SYD 3410 Urban Sociology 3 hours
   - SYD 3700 Race and Ethnic Minorities in the United States 3 hours
   - SYD 3800 Sex Roles in Modern Society 3 hours
   - SYD 4020 Population 3 hours
   - SYO 3000 Modern Sociology 3 hours
   - SYO 3410 Sociology of Mental Illness 3 hours
   - SYO 3530 Social Stratification 3 hours
   - SYO 4100 Family Trends 3 hours
   - SYO 4250 Sociology of Education 3 hours
   - SYO 4300 Political Sociology 3 hours
   - SYO 4370 Sociology of Occupations and Professions 3 hours
   - SYO 4400 Medical Sociology 3 hours
   - SYP 3300 Collective Behavior 3 hours
   - SYP 3400 Social Change 3 hours
   - SYP 3540 Sociology of Law 3 hours
   - SYP 3510 Sociology of Deviant Behavior 3 hours
   - SYP 3520 Criminology 3 hours
   - SYP 3530 Juvenile Delinquency 3 hours
   - SYP 3551 Sociology of Alcoholism 3 hours
   - SYP 3602 Sociology of Popular Music 3 hours
   - SYP 3650 Sociology and Sport 3 hours
   - SYP 4550 Sociology of Drug Abuse 3 hours
   - SYP 4730 Sociology of Aging 3 hours

Eligible students may enroll for 3 to 16 semester hours of Internship. Arrangements for Internship are coordinated by the Department.

5. Foreign Language
   Two semesters/proficiency required and either a third semester in the course OR one approved enhancement course.

6. Electives

Total Semester Hours Required 120
Bachelor of Arts: Anthropology

Degree Requirements

Anthropology offers the Bachelor of Arts degree. In keeping with the holistic nature of the discipline, students are required to pursue a course of study which leads to a comprehension of all subfields of Anthropology. The recognized subfields of Anthropology are Cultural Anthropology, Archaeology, Physical Anthropology, and Linguistics. Area studies concerned with North American Indians, Mesoamerican Civilization, and Latin American Culture are available. Students majoring or minoring in Anthropology with sufficient course background may be provided an opportunity to participate in ongoing archaeological excavations associated with the Maya culture in the Central American country of Belize.

A minimum of 45 semester hours is required for a degree. All Anthropology courses are 3 semester hours with the exception of ANT 4124, which is 9 semester hours.

Two semesters of foreign language are required, or proficiency.

Degree Requirements

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements
3. Required Courses (21 hours)

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<tr>
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<th>Title</th>
<th>Hours</th>
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<tr>
<td>ANT 3211</td>
<td>Archaeology and the Rise of Human Culture</td>
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<tr>
<td></td>
<td>(Anthropology I)</td>
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<tr>
<td>ANT 3410</td>
<td>Cultural Anthropology (Anthropology II)</td>
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<td>ANT 3511</td>
<td>The Human Species (Anthropology III)</td>
<td>3</td>
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<td>ANT 3145</td>
<td>Archaeology of Complex Societies</td>
<td>3</td>
</tr>
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<td>ANT 3422</td>
<td>Peoples of the World</td>
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<td>ANT 3610</td>
<td>Language and Culture</td>
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<td>ANT 4084</td>
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4. Restricted Electives (24 hours)

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<td>Area Studies</td>
<td>ANT 3153 Archaeology of North America</td>
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<td>ANT 3163 Mesoamerican Archaeology</td>
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<td></td>
<td>ANT 3311 Indians of the Southeastern United States</td>
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<td>ANT 3312 Ethnology of North American Indians</td>
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<td>ANT 3313 Indians of the North American High Plains</td>
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<td>ANT 3328 Maya Archaeology</td>
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<td>ANT 3332 Peoples and Cultures of Latin America</td>
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<td>ANT 3360 Peoples of the Far East</td>
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<td>ANT 3363 Anthropology of Japan</td>
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Specialized Studies (Select 5)

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<td>ANT 3302 Sex, Gender, and Culture</td>
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<td>ANT 3241 Magic, Ritual, and Belief</td>
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<td>ANT 3432 Culture and the Individual</td>
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<td>ANT 3262 Rural Society</td>
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<td>ANT 3141 The Emergence of Civilizations</td>
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<td>ANT 3142 Old World Prehistory</td>
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<td>ANT 3144 Prehistory of the American Indians</td>
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<td>ANT 4180 Seminar in Laboratory Analysis</td>
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<td>Physical</td>
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5. Electives

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<td>ANT 2003</td>
<td>General Anthropology (recommended for non-majors)</td>
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Total Semester Hours Required: 120
DEPARTMENT OF STATISTICS
Chair: M.E. Johnson, CCII 221, Phone (407) 823-2289
Faculty: Cutchins, Hoffman, Malone, Nickerson, Richardson, J. Schott, S. Schott, Somerville, M. Wang, Wildman-Pepe

The Department of Statistics offers courses and programs which lead to a Bachelor of Science in Statistics, a minor in statistics, and a Master of Science in Statistical Computing. (See the Graduate Studies catalog for a description of the M.S. in Statistical Computing.)

The undergraduate programs in statistics are designed to serve (1) students who wish to pursue careers in statistics after having completed a baccalaureate degree; (2) students who wish to continue their education in graduate or professional schools; and (3) students who need to use statistics as tools in their specialty areas.

In order to serve such a wide variety of students, the courses and programs in the Department of Statistics have developed along several lines. There are the usual service courses in elementary statistics along with strong programs in the upper division in statistical methods, statistical theory, and statistical computing.

A limited number of assistantships are available for qualified graduate and undergraduate students.

MINOR
The Department of Statistics offers a minor (with a minimum of 18 hours). Required Courses: STA 3023 or STA 3032 or equivalent; STA 4163, STA 4164, and one of the following: STA 4222 or STA 4502. A grade of C or higher is required in each course counting toward a minor.

Restricted Electives: Six or more hours from STA courses numbered 3000 or higher. (Credit from STA 3023 or STA 3032 or the equivalent may not be used as a restricted elective.) All courses except STA 3023 or STA 3032 must be taken from the Department of Statistics at UCF unless substitutes are approved by the Department Standards Committee.

Bachelor of Science: Statistics
Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
   (a) All statistics courses except STA 3023, STA 3032, and those protected by the Florida Common Course Numbering system must be taken from the Department of Statistics at UCF. Substitution of other transfer work must be approved by the Department Standards Committee.
   (b) To meet the College of Arts and Sciences requirement for Natural Science majors, a Statistics major must take one course from one group (A or B) and two courses from the other group, with at least one laboratory in each group. Any additional science course in the College of Arts and Sciences of any level or any course in the College of Health numbered 3000 or higher will count as the fourth required course.

   Group A         Group B
   BOT 2010C       CHM 2045
   BSC 2010C       CHM 2046 and CHM 2046L
   ZOO 2010C       PHY 3053C
                     PHY 3054C

   (NOTE: If both CHM 2046 and CHM 2046L are taken, they will only count as one course in satisfying the above requirement. CHM 2046L by itself will not count as a course.)
   (c) A grade of "C" or higher is required in all STA courses counting towards a statistics major.
   (d) A 2.0 average or higher is required in all computer science and mathematics courses that count toward a statistics major.
3. Required Courses
   STA 3023        Statistical Methods I        3 hours
   STA 4102        Computer Processing of Statistical Data 3 hours
   STA 4163        Statistical Methods II       3 hours
   STA 4164        Statistical Methods III      3 hours
   STA 4321        Statistical Theory I         3 hours
   STA 4322        Statistical Theory II        3 hours
COT 4500 Numerical Calculus 3 hours
COP 2500 Programming I 3 hours
COP 2501 Programming II 3 hours
MAC 3311 Calculus with Analytic Geometry I 4 hours
MAC 3312 Calculus with Analytic Geometry II 4 hours
MAC 3313 Calculus with Analytic Geometry III 4 hours
MAS 3106 Linear Algebra 4 hours
or
MAS 3105 Elementary Linear and Matrix Algebra 4 hours
COT 3100 Introduction to Discrete Structure 3 hours
or
MHF 2300 Logic and Proof in Mathematics 3 hours
ENC 3241 Technical Report Writing 3 hours
Three from among the following five:
STA 3096 Statistical Graphics 3 hours
STA 4202 Design of Experiments 3 hours
STA 4222 Sample Survey Methods 3 hours
STA 4502 Nonparametric Statistical Methods 3 hours
STA 4664 Statistical Quality Control 3 hours

4. Restricted Electives
A minimum of 6 hours selected from upper-division or graduate statistics, mathematics, or computer science courses. (MAC 3233, 3253, 3254; all MAE courses; and MHF 4404 may not be used.)
Selected courses in engineering may be used but must first be approved by the Statistics Department Standards Committee.

5. Electives
The number of hours depends on the courses chosen to satisfy university requirements.
Total Semester Hours Required 120

DEPARTMENT OF THEATRE
Chair: D.W. Seay, THE 120, Phone (407) 823-2861.
Faculty: Cali, Rusnock, Smith, Begley, Elliott, Kopf, Lee, O'Keefe, Rothan, Siegfried

The Department of Theatre seeks to develop theatre artists of the highest quality by providing a select number of undergraduate students with the training, education, and experiences necessary for the successful pursuit of professional careers in theatre arts. In support of this mission and the liberal arts goals of the College of Arts and Sciences, the department seeks to provide its students with the knowledge and skills necessary to live full, rewarding and productive lives. Offering both the Bachelor of Arts and the Bachelor of Fine Arts degrees, the Department of Theatre undertakes to develop and graduate theatre artists who are sensitive, aware, and total human beings. Through its public performance programs, the department endeavors to serve as a cultural resource for the University, the community and the central Florida region. Striving to provide its students with a competitive edge, the department employs a faculty and staff of artists/teachers who work intensely with students in the classroom and in production. To supplement this education and training, professional guest artists are brought to the campus to work in production and in the classroom. Before graduation, B.F.A. students are required to complete a professional theatre internship thus providing them with a unique and invaluable introduction to the real world of professional theatre. In all its endeavors, the Department of Theatre strives to create and maintain a professional environment necessary for the continued growth and development of its students, faculty, and staff.

SPECIAL ENTRANCE REQUIREMENTS
Entrance into the majority of UCF theatre classes for both B.A. and B.F.A. theatre majors is made by the departmental faculty on the basis of departmental interview, audition and portfolio review. Only those students who have successfully undergone this process are admitted into restricted theatre classes. Students wishing to pursue a performance major, in addition to an interview, are required to prepare and perform two monologues of contrasting styles not to exceed a total of three (3) minutes. Students of performance interested in musical theatre should prepare a ballad in addition to their monologues. Students
wishing to pursue a technical theatre/design major, in addition to an interview, must undergo a portfolio review. The portfolio should contain no more than fifteen (15) examples of the student’s best work representing a variety of mediums and presented in a professional manner. Three dimensional pieces can be submitted in slide format. For more complete information concerning entrance auditions and portfolios, please contact the Department of Theatre prior to enrollment at UCF.

Course Restrictions
With the exception of THE 1020, 1020H, 1925, 2300, 2925, 2926, 3110, 3111, 3305, TPP 3190, 3191, 3197, 4192, 4193, TPA 3197, 3290, 3291, and 4293 theatre courses are restricted to theatre majors. Other courses are further restricted to B.F.A. theatre majors. Waiver of restrictions must be approved by the Department Chair.

THEATRE PARTICIPATION
Because participation in productions is the best way to experience maximum artistic development, the department strongly recommends that all theatre students participate, in some capacity, on all main-stage productions. Though participation on all departmental productions is not required, B.A. and B.F.A. theatre majors are required to participate on a minimum of two (2) departmental productions during both the Fall and Spring terms. Participation in some capacity on the opening production of the Fall term of each academic year is mandatory for all majors. Successful completion of the theatre degree is contingent upon the student’s continuing participation in departmental productions. A student who fails to successfully satisfy the participation requirement, will be placed on probation for one (1) semester. Continued failure to successfully participate may result in the student being dropped as a Theatre major. For further information concerning Theatre Participation, consult the Student Handbook.

FRESHMAN AND SOPHOMORE B.F.A. EVALUATIONS
Evaluations are available to all theatre students but are required of B.F.A. students who wish to continue in the B.F.A. degree program. The performance theatre faculty and staff and the technical theatre/design faculty and staff will meet privately with each student in their respective areas to review and provide objective evaluations of each student’s strengths and weaknesses. Following each evaluation, a recommendation will be made to each student regarding their continuation in the B.F.A. degree program. For further information concerning B.F.A. evaluations, consult the departmental Student Handbook.

MINOR
The Department of Theatre offers a minor in General Theatre. The requirements are as follows:
1. A successful interview and audition or portfolio review.
2. A minimum of 28 semester hours of credit to include the following or their equivalent: THE 1020, 1925, 2300, 2925, 2926, 3110, 3111, 3305, TPP 2100, TPA 2200, and 2204.
3. A minimum of 18 of these required credits, including TPA 2200, 2204, THE 2925, and 2926, must be completed at UCF.
4. Participation on a minimum of two (2) departmental productions during both the Fall and Spring terms for four (4) semesters.
5. A minimum grade of “C” (2.00) in all theatre courses. No “D” grades in theatre courses from other institutions are transferable.

THEATRE CORE CURRICULUM
The theatre core curriculum is required of all B.A. and B.F.A. theatre majors.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 1020</td>
<td>Theatre Survey</td>
<td>3</td>
</tr>
<tr>
<td>THE 1925</td>
<td>Basic Technical Skills</td>
<td>2</td>
</tr>
<tr>
<td>TPP 2100</td>
<td>Introduction to Acting</td>
<td>3</td>
</tr>
<tr>
<td>TPA 2200</td>
<td>Stagecraft I</td>
<td>3</td>
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<tr>
<td>TPA 2204</td>
<td>Stagecraft II</td>
<td>3</td>
</tr>
<tr>
<td>THE 2300</td>
<td>Script Analysis</td>
<td>3</td>
</tr>
<tr>
<td>THE 2925</td>
<td>Theatre Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>THE 3110</td>
<td>Theatre History I</td>
<td>3</td>
</tr>
<tr>
<td>THE 3111</td>
<td>Theatre History II</td>
<td>3</td>
</tr>
</tbody>
</table>
THE 3305 Survey of Dramatic Literature 3 hours
TPP 3310 Directing I 3 hours
Total: 30 hours

BACHELOR OF ARTS DEGREE
The Bachelor of Arts Degree is offered to meet the needs of those students who do not plan to pursue the theatre as a profession upon graduation. Such students may be interested in pursuing graduate studies in theatre or they may be interested in the theatre solely as a means of obtaining an excellent liberal arts education. The B.A. degree is a 46-hour major offered in general theatre only. Students need to work closely with their advisors in selecting courses.

B.A. Degree Requirements
1. See Undergraduate Degree Requirements.
2. Most theatre courses have prerequisites and are sequential. Waiver of prerequisites or sequence must be approved by the Department Chair.
3. See special college and/or department requirements. Students in theatre courses must achieve a grade of "C" (2.00) or higher to continue in a course sequence or to advance to the next higher level of study. Students receiving a grade of "D" in a required theatre course must repeat the course. Departmental residency requirements require that a minimum thirty (30) semester hours of regularly scheduled courses be completed with the UCF Department of Theatre.
4. Students must maintain a minimum "C" (2.00) overall Theatre GPA to continue in the major.
5. Required courses.
6. Restricted electives.
7. Foreign Languages Requirement for B.A. is two (2) semesters.
8. Electives, selected in consultation with a theatre advisor, are to be primarily from upper division courses.
9. Total semester hours required for graduation is 120.

AREAS OF SPECIALIZATION — NONE

I. GENERAL THEATRE
   A. Required Theatre Courses
      Theatre Core Curriculum 30 hours
      Theatre Production/Performance 4 hours
   B. Theatre Electives selected from courses open to B.A. majors 12 hours
   C. Suggested Courses in Dramatic Literature
      ENL 4330, 5176, and 5335
Total: 46 hours

BACHELOR OF FINE ARTS DEGREE
The Bachelor of Fine Arts Degree is offered to meet the needs of those students who, upon graduation, plan to pursue a specialized career in professional theatre. The B.F.A. degree is an 80 hour major which provides the student with a very structured and intensive career preparation in either performance or technical theatre/design. The B.F.A. is also an excellent degree for students who are interested in pursuing graduate studies in theatre. Work in the B.F.A. degree program requires tireless energy and dedication. As B.F.A. theatre students work 35-55 hours per week, part-time study or outside work is generally impossible. B.F.A. standards are high, both for admission and for continuation in the program. Casting, crew and design assignments are regulated to serve the artistic growth of students coordinating production experience with classroom exploration.

B.F.A. Degree Requirements
1. See Undergraduate Degree Requirements.
2. Waiver of course prerequisites and sequencing must be approved by the Department Chair.
3. See special college and/or department requirements. B.F.A. students in theatre courses must achieve a grade of "C" (2.00) or higher to continue in a course sequence or to
advance to the next higher level of study. Students receiving a grade of "D" in a required theatre course must repeat the course. Departmental residency requirements require a minimum of sixty (60) semester hours of regularly scheduled courses be successfully completed with the UCF Department of Theatre.

4. B.F.A. theatre majors must maintain a minimum "B" (3.00) overall Theatre GPA to continue in the B.F.A. degree program. In addition to maintaining a minimum 3.00 Theatre GPA, continuation in the B.F.A. requires a positive annual evaluation by the faculty and their recommendation for continuation in the program. Failure to meet the above criteria will, under normal circumstances, require the student to change to a B.A. degree program.

5. Required courses vary with concentration.
6. Restricted electives.
8. Electives, selected in consultation with a theatre advisor are to be primarily from upper division courses.
9. Total semester hours required for graduation is 120.

AREAS OF SPECIALIZATION

1. PERFORMANCE
   A. Required Theatre Courses
      Theatre Core Curriculum
   B. Performance Specialization
      TPP 2170, 3172, 3190, 3191, 3510, 3511, 3712, 3730, 4140, 4142, 4192, 4193, 4260, 4511, 4531, 4940, TPA 2248, and THE 2926
   C. Restricted Electives
      TPP 3197, 4311, TPA 3601, 3249, and 4400
   D. Music
      MVV 1111 and 1211
   E. Suggested Courses in Dramatic Literature
      ENL 4330, 5176, 5335

   Total: 80 hours

2. TECHNICAL THEATRE/DESIGN
   A. Required Theatre Courses
      Theatre Core Curriculum
   B. Technical Theatre/Design Specialization
      TPA 3043, 3060, 3061, 3077, 3220, 3221, 3230, 3250, 3251, 3290, 3291, 3601, 4049, 4293, 4940, and THE 2926
   C. Restricted Electives
      TPA 2248, 3197, 3249, 4061, and 4400
   D. Art
      Art 2300, 2301C, 2201C, 2202C, or 3330C
   E. Suggested Courses in Dramatic Literature
      ENL 4330, 5176, 5335

   Total: 80 hours

3. STAGE MANAGEMENT
   A. Required Theatre Courses
      Theatre Core Curriculum
   B. Stage Management Specialization
      TPA 2248, 3221, 3060, 3220, 3230, 3290, 3291, 3601, 4293 THE 2926, TPP 2170, 2510, 2511, 2710, 2711, and 3172
   C. Restricted Electives
      TPA 3197, 3249, 4061, 4400, TPP 3197, 4311
   D. Art
      Art 2300, 2301C, 2201C, 2202C or 3330C
   E. Suggested Courses in Dramatic Literature
      ENL 4330, 5176, and 5335

   Total: 80 hours
WOMEN'S STUDIES PROGRAM

The Women's Studies program offers an interdisciplinary minor, but not a major. Several departments cooperate in offering the minor, which emphasizes the history and cultural contributions of women and their role in society today. For further information contact Dr. Kathryn Seidel, FA 511, (407) 823-2251.

Required Courses — 15 hours chosen from:

- AMH 3560 Women in American History
- ANT 3302 Sex, Gender and Culture
- ARH 4458 Women and Art in 20th Century America
- ART 4892 Women in Art
- CCJ 4670 Women and Crime
- HSC 3930 Women and Health
- LIT 3383 Women in Literature
- PHM 4123 Feminist Theory
- PUP 4323 Women and Politics
- SOP 3742 Psychology of Women

Elective Courses (choose one) — 3 hours:

- LIT 4354 Ethnic Literature in the U.S.
- MUL 393 Women Composers
- SYD 3800 Sex Roles in Modern Society
- SYD 4100 The Family

Other courses as approved by the Women's Studies advisor.
COLLEGE OF BUSINESS ADMINISTRATION

UNDERGRADUATE PROGRAMS
- Accounting (BSBA)
- Economics (BSBA)
- Finance (BSBA)
- General Business Administration (BSBA)
- Hospitality Management (BSBA)
- Management (BSBA)
- Marketing (BSBA)

GRADUATE PROGRAMS*
- Accounting (MSA)
- Applied Economics (MAE)
- Business Administration (MBA, Ph.D.)
  - Concentrations in Accounting and Finance (Ph.D.)
- Taxation (MST)

*See the Graduate catalog for information.
COLLEGE OF BUSINESS ADMINISTRATION

Dean: Richard C. Huseman, BA 230, Phone (407) 823-2181
Interim Associate Dean: W. McHone, BA 230L, Phone (407) 823-5094
Interim Assistant Dean: R. Pennington, BA 240, Phone (407) 823-2184
Director, Student Support: H. Hill, BA 240, Phone (407) 823-2184

The mission of the College of Business Administration at the University of Central Florida is to provide quality business education programs, at the undergraduate, graduate, and executive levels, to the citizens of the state of Florida and to selected clientele nationally and internationally. In delivering these programs, the College places primary emphasis on excellent teaching and research with a strong commitment to developing mutually supportive relationships with the business community of Central Florida.

In pursuit of its mission, the College of Business Administration affirms its commitment to the University’s focus on excellence and accent on the individual. Furthermore, the College pledges to deliver innovative and progressive programs to its clientele, and a commitment to service in the community, not only from its faculty but also its students. As the College approaches the twenty-first century, it has adopted “Driven by Excellence” as a motto and guiding force in achieving its goals and objectives. All undergraduate and graduate programs are accredited by the American Assembly of Collegiate Schools of Business (MCSB).

Admission to the University of Central Florida does not imply admission to the College of Business Administration. Students will only be allowed to enroll in the 3000/4000 level courses taught by the College of Business Administration after they have been admitted to the College.

Admission to the College will be granted when the following are complete:

a. Completion of the University General Education program.

b. 1. Completion of ENC 1101, ENC 1102 and MAC 1104 with a minimum grade of “C”.

2. Completion of ACG 2021 and ACG 2071 (or ACG 2023) with a minimum grade of “C”.

3. Completion of ECO 2013 and ECO 2023 with a minimum grade of “C”.

4. Students must demonstrate competency in micro-computer applications during their first semester in College of Business Administration courses. Students who fail to demonstrate competency will not be permitted to continue enrollment in the business program.

c. Achieved a minimum grade point average of 2.5 overall at the completion of at least sixty hours of course work.

Students who otherwise meet the University admission requirements, such as entering freshmen and transfer students, will be placed in a Business Administration pending category until they meet the requirements set forth above. Grades of “D” will not transfer into the program. Each student should attend orientation for academic advising and should meet with an academic advisor in the College to outline a program of study.

Attendance at the first meeting of any College of Business course is mandatory. Students not in attendance at the first meeting may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student’s responsibility for dropping courses they do not intend to complete.

The degree Bachelor of Science in Business Administration with the following majors is offered by the College of Business Administration:

- Accounting
- Economics
- Finance
- Marketing
- General Business Administration
- Hospitality Management
- Management

154
Common Body of Knowledge

BUL 3130 Legal Environments of Business
ECO 3401 Mathematical Economics I
ECO 3411 Quantitative Methods and Business Decision Analysis
FIN 3403 Business Finance
GEB 3031 Cornerstone

GEB 4361 Business in the International Environments
MAN 3025 Management of Organizations
MAN 3504 Quality and Productivity Management
MAN 4720 Strategic Management
MAR 3023 Marketing

Grade Point Average Requirements
For graduation the student must have maintained a minimum 2.0 GPA in course work taken in the College of Business Administration and a minimum 2.0 GPA in the course work required in the major, except in Accounting, Finance and Marketing where a “C” or better is required in each course and a minimum 2.0 is required overall.

Student Load
A student who is enrolled in 16 semester hours of course work is considered to be carrying a normal academic load. Students in the College of Business Administration desiring to take more than 16 hours of course work must obtain permission from the college.

Community/Junior College Transfers
1. Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in UCF’s Business program.
2. Florida Public Community College students are advised to complete the Associate of Arts Degree including:
   A. the general education requirements;
   B. the one year Accounting and Economics sequence; and
   C. College Algebra.
3. Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year course areas in the College of Business Administration and cannot be satisfied with community/junior college courses.
4. A minimum of 12 semester hours must be completed at UCF within each individual major.

Minor — International Business (Restricted to Business Majors)
The College of Business Administration offers a minor in International Business consisting of 18 semester hours.
Required Courses: GEB 4361, ECO 3703, FIN 4604, MAR 4156 or MAN 4800; Electives: 6 hours of the following courses — ANT 3410, ECS 4003, ECS 4013, GEO 3470, INR 4035, INR 4401, INR 4224, INR 4243: Special Topics Seminars in International Business; 3000/4000 level foreign language course.

Minor (Restricted to Non-Business Majors)
The College of Business Administration offers a minor consisting of 24 semester hours.
(Nine semester hours of upper division business courses must be completed at UCF.)
Students are required to earn a “C” or better in each course.
Required courses: ACG 2021, 2071, or ACG 2023; ECO 2023, 2013; FIN 3403; MAN 3025; MAR 3023; one 3000/4000 level business course elective. A GPA of 2.0 is required for each course and overall. GEB 3004 may not be used as the business course elective.
See also: Florida Tilburg Program (for Business Majors) listed under International Studies and Programs

SCHOOL OF ACCOUNTING
Director: D. Bandy, BA 437, Phone (407) 823-2871
Assistant to the Director: L. Mahoney, BA 438, Phone (407) 823-5809

155
OBJECTIVES OF ACCOUNTING PROGRAMS

The objective of the baccalaureate program with a concentration in accounting is to provide basic conceptual accounting and business knowledge as a foundation for accounting career development.

Bachelor of Science in Business Administration: Accounting

Degree Requirements

1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business (except BUL 3130 which is satisfied by taking BUL I and II).

2. Special qualifications for satisfying this program's requirements are:
   a. Students wanting to major in Accounting must apply for admission to the major.
   b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   c. A minimum grade of "C" must be earned in each accounting, business law, and tax course completed. Principles of Accounting and Principles of Managerial Accounting are included under this rule.
   d. Students are allowed a maximum of three course repetitions during their program of study leading to the bachelors degree, including repetitions of courses from which they have withdrawn. This requirement applies to upper division accounting, tax, and business law courses only.
   e. A transfer student to this program must:
      (1) take a minimum of twelve (12) semester hours in accounting at UCF as approved by the director of the School of Accounting.
      (2) have credit for a course in each of the following areas:
         a. English communication arts including written composition
         b. Oral expression
         c. Behavioral science such as psychology, anthropology, and sociology
         d. Humanities
         e. Political environment of business and society such as political science, public administration, and ethics.
         f. Students must demonstrate computer proficiency. All College of Business Administration students must demonstrate computer proficiency by completion of the CBA Computer Proficiency Examination. Accounting majors must also complete CGS 3xxx [Course number to be determined by Computer Science].

3. Required Courses

   ACG 3101 Intermediate Financial Accounting I 3 hours
   ACG 3111 Intermediate Financial Accounting II 3 hours
   ACG 3361 Cost Accounting I 3 hours
   ACG 3501 Financial Accounting for Governmental and Nonprofit Organizations 3 hours
   ACG 4401 Accounting Systems I* 3 hours
   TAX 4001 Federal Income Tax I 3 hours
   ACG 4203 Advanced Accounting 3 hours
   ACG 4651 Auditing 3 hours
   BUL 3320 Business Law I 3 hours
   BUL 3321 Business Law II** 3 hours

4. Electives: As necessary to result in 120 total credit hours.

   Total Semester Hours Required 120

* CGS 3xxx, which meet requirement of the General Education Program, is a prerequisite for Accounting Systems.

** Transferable only from senior academic institutions.
CPA EXAMINATION REQUIREMENTS

Effective August 31, 1983, Florida Law states that to qualify to sit for the CPA exam, one must possess thirty (30) additional semester hours of credit beyond the minimum requirements for the baccalaureate degree. In addition to this overall educational requirement, the following specific criteria also apply:

- 36 hours in accounting beyond elementary, including at least:
  - 12 hours in financial and cost accounting
  - 6 hours in auditing and internal auditing
  - 6 hours in tax
  AND

- 39 hours in general business, including at least six hours of business law. Because of these increased educational requirements, no experience or additional course work is needed for certification.

To satisfy the necessary coursework required by the law, the School of Accounting offers the Master of Science in Accounting (MSA) and the Master of Science in Taxation (MST) degree programs. Please see the graduate catalog for program requirements.

DEPARTMENT OF ECONOMICS

Interim Chair: R. A. Hoffer, BA 325, Phone (407) 823-3266
Faculty: Braun, Day, Gibbs, Hoffer, D. Hosni, Kilbride, T. Martin, McHone, Otsuka, Pennington, Raffa, Rungeling, Soskin, White, Xander

The Department of Economics participates in two undergraduate degree programs: a B.S.B.A. degree in the College of Business Administration and a B.A. degree in the College of Arts and Sciences. The purpose of the College of Business Administration economics major is to provide students with a professional business background that prepares them for careers in private business and government. The purpose of the economics major in the College of Arts and Sciences is to provide a broad-based liberal arts background that can serve as a strong foundation for further graduate studies in law, social sciences, and other fields or as training for careers in politics, teaching, research, social service, and other areas. The goal of both programs is to enable students to better understand the economic and non-economic issues that are confronted in their jobs and their private lives and to provide the analytical skills that will allow them to resolve these issues. Students interested in a B.A. in Economics should refer to the Economics Major in the College of Arts and Sciences.

MINOR (In Economics for Non-Business Administration majors)

Required Courses: ECO 3101, 3203, 3411. These requirements are in addition to the prerequisites ECO 2013 and 2023.

Elective Courses: Three courses from the following: ECO 3233, 3703, 3622, 3723, 4303, 4412, 4504; ECP 3004, 3203, 3424, 3433, 4403, 4603, 4703; ECS 4003, 4013, 4303.

Bachelor of Science in Business Administration: Economics

Degree Requirements
1. See Undergraduate Degree Requirements
2. Special college and/or department requirements:
   a. Students wanting to major in Economics must apply for admission to the major.
   b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   c. A transfer student to this program must take a minimum of twelve (12) semester hours in economics at UCF.
3. Required Courses
   - ECO 3101 Intermediate Price Theory 3 hours
   - ECO 3203 Aggregate Economic Conditions Analysis 3 hours
4. Restricted Electives
   All economics majors will be required to take five (5) electives from the following for a total of twenty-one (21) hours beyond the Common Body of Knowledge.
The program in finance is designed to provide the student with broad knowledge in finance, including business finance, investments, financial institutions, International finance, risk management and insurance, and real estate. The program provides the student with the theoretical background and tools of analysis required for making effective financial decisions.

The study of finance prepares the student for careers in business financial management. Students that major in finance are sought by both financial and non-financial firms.

Bachelor of Science in Business Administration: Finance

Degree Requirements

1. See Undergraduate Degree Requirements.

2. Special college and/or department requirements:
   a. The Finance Major Curriculum consists of a total of 27 semester hours in addition to FIN 3403. Students are required to earn a grade of "C" or better in FIN 3403 and all other classes taken toward the major and to have a 2.0 overall average.
   b. FIN 3403 Business Finance, is prerequisite to all finance courses except FIN 3100, REE 3043, & REE 4433.
   c. FIN 3100 (Personal Finance and Investments) and REE 3043 (Fundamentals of Real Estate) are not usable for credit by Finance Majors.
   d. Students wanting to major in Finance must apply for admission to the major.
   e. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   f. A transfer student to this program must take a minimum of twelve (12) semester hours in finance at UCF.

3. Required Courses.
   FIN 3303  Financial Markets  3 hours
   FIN 3404  Intermediate Corporate Finance  3 hours
   FIN 3453  Financial Models  3 hours
   FIN 3504  Investment Analysis  3 hours
   Select two of the following:* 
   FIN 4324  Management of Financial Institutions  3 hours
   FIN 4514  Portfolio Analysis and Management  3 hours
   FIN 4503  Speculative Financial Markets  3 hours
   FIN 4604  International Financial Management  3 hours

Total Semester Hours Required  120
FIN 4424  Advance Topics in Financial Management  3 hours
REE 4303  Real Estate Investment Analysis  3 hours

4. Restricted Electives
   a. Select three of the following:

   ACG 3101  Intermediate Financial Accounting I  3 hours
   ACG 3111  Intermediate Financial Accounting II  3 hours
   ACG 3361  Cost Accounting  3 hours
   ACG 4401  Accounting Systems I  3 hours
   COP 3120  Programming in COBOL  3 hours
   ECO 4412  Economic Statistics and Econometrics  3 hours
   ECP 4403  Business, Government, and Industrial Organizations  3 hours
   ECP 4603  Urban and Regional Economic Problems  3 hours
   ECP 4703  Managerial Economics  3 hours
   FIN 4127  Employee Benefits and Retirement Planning  3 hours
   FIN 4324  Management of Financial Institutions  3 hours
   FIN 4503  Speculative Financial Markets  3 hours
   FIN 4514  Portfolio Analysis and Management  3 hours
   FIN 4604  International Financial Management  3 hours
   FIN 4424  Advance Topics in Financial Management  3 hours
   FIN 4906  Independent Study  3 hours
   FIN 4941  Internship  3 hours
   MAC 3311  Calculus with Analytic Geometry I  3 hours
   MAC 3312  Calculus with Analytic Geometry II  3 hours
   MAC 3313  Calculus with Analytic Geometry III  3 hours
   REE 4303  Real Estate Investment Analysis  3 hours
   REE 4103  Real Estate Appraisal  3 hours
   REE 4204  Real Estate Finance  3 hours
   REE 4433  Real Estate Law  3 hours
   RMI 3011  Principles of Risk and Insurance  3 hours
   STA 4102  Computer Processing of Statistical Data  3 hours
   STA 4163  Statistical Methods II  3 hours
   STA 4164  Statistical Methods III  3 hours
   STA 4502  Nonparametric Statistical Methods  3 hours
   STA 4664  Statistical Quality Control  3 hours
   TAX 4001  Federal Income Tax I  3 hours
   Total Hours  120

*No class may be used more than once.

GENERAL BUSINESS ADMINISTRATION

This option allows students to develop a general program of study which will satisfy career objectives not provided for by the specialized areas of concentration. To pursue this option, students should seek advisement in the Department of Economics. An academic advisor will be assigned to assist each student in developing a meaningful program of study.

Bachelor of Science in Business Administration:
General Business Administration

Degree Requirements
1. Undergraduate Degree Requirements
2. Special college and/or department requirements:
   a. Students wanting to major in General Business Administration must apply for admission to the major.
   b. Within the College of Business Administration the first day of class is mandatory.
      Final exams will be given during Exam Week.
   c. A transfer student to this program must take a minimum of twelve (12) semester hours in the major at UCF.
3. One (1) additional course beyond the Common Body of Knowledge in Finance (FIN prefix) and Marketing (MAR prefix) (one course from each discipline).
4. Restricted Electives
   A minimum of six (6) additional courses from at least three (3) different departments
   (Accounting, Economics, Finance, Hospitality Management, Management, Marketing)
   taught in the College of Business Administration.
5. Students wishing to complete the General Business major as a second major within the
   College of Business Administration must complete 24 hours beyond the courses
   required for the first major.
6. Electives

   Total Semester Hours Required 120

DEPARTMENT OF HOSPITALITY MANAGEMENT

Chair: R. Ford, BA 409, Phone (407) 823-2188
Faculty: Ashley, Bach, Chesser, Ellis, LeBruto, Milman, Pizam, Quain

The hospitality industry currently represents the second largest employer in the United
States and is the major part of the rapidly growing services sector of the economy. Because
of its unique location in the premier tourist destination in the world, the Department of
Hospitality Management is ideally situated to prepare students for managerial careers in the
hospitality industry. Whether the student is interested in entering lodging, food service, travel
and tourism, or conventions and destination services management, the Orlando and Central
Florida area offers extraordinary opportunities. It is the destination for over 13 million tourists
each year, has over 400 hotels with 80,000 rooms, 1400 restaurants, and 50 theme parks
and attractions. The industry employs a half million people in the State of Florida and many
are in the Central Florida area.

The leaders of this industry have helped design a program of study for the major that pre-
 pared both experienced employees and newly entering students to successfully compete
for employment in the industry at the local and national levels. The educational mission of
the department is to provide our students with the knowledge, skills, and ability to identify
opportunities and challenges in the hospitality industry, to apply creative decision tech-
niques in responding to those opportunities, and to lead the industry into the next century.

The major is designed to prepare students for a broad range of managerial roles across
the hospitality industry. It provides both academic preparation and "hands on" experiences
that students will need to enter and succeed in a hospitality management career. Students
also have the opportunity to experience the work world in hospitality through the 800 hour
cooperative education requirement and through extensive contact with leading hospitality
managers in the Central Florida area.

MINOR In Hospitality Management
   The Department offers an eighteen hour minor in Hospitality Management.

Required courses for the minor are:
   HFT 3020, HFT 4752, FSS 3223, HFT 4210, HFT 4250c, HFT 4717. A GPA of 2.0 is
   required for these courses. Twelve (12) semester hours must be taken at UCF.

Bachelor of Science in Business Administration:
   Hospitality Management

Degree Requirements
1. See Undergraduate Degree Requirements:
2. UCF Residency Requirements: 31 hours
3. Special college and/or department requirements:
   a. Students seeking to major in Hospitality Management must apply for admission to
      the major.
   b. Within the College of Business Administration attendance on the first day of class is
      mandatory. Final exams will be given during Exam Week only.
   c. A transfer student to this program must take a minimum of twelve (12) hours in hos-
      pitality management at UCF.
   d. A cooperative work experience of 800 hours is a graduation requirement.
   e. Students should substitute HFT 3600 Legal Environment of Hospitality/Tourism for
      BUL 3130 Legal Environment of Business to satisfy the College of Business’s
      Common Body of Knowledge.
4. Required Courses:
- HFT 3020 Guest Services Management 3 hours
- HFT 4752 Conference and Convention Promotion 3 hours
- FSS 3223 Quantity Food Management 3 hours
- HFT 4210 Hospitality Human Resources Development 3 hours
- HFT 4250C Hotel/Motel Management & Operations 3 hours
- HFT 4717 Tourism Planning and Development 3 hours
- TOTAL 18 Hours

5. Restricted Electives:
Hospitality major should select any three (3) courses taught in the Hospitality Management Department and includes the following: AVM 4510, FSS 3120, FSS 3301, FSS 3232C, FSS 3241, FSS 4284C, HFT 3754, HFT 4343, HFT 4473, HFT 4722, HFT 4735, HFT 4753, HFT 4754, HFT 4860, HFT 4932.

6. Hospitality Management Cooperative Education
The co-operative education requirement provides students the opportunity to see how classroom theory is applied to the world of work. Hospitality students must complete a minimum of 800 clock hours (equivalent to 20 full time weeks) of paid study-related work experience in a hospitality or tourism enterprise. All work related experiences must be approved in advance by the departmental co-op advisor.

7. Electives
- Total Semester Hours Required 120 hours

DEPARTMENT OF MANAGEMENT
Chair: P. Lewis, BA 335, Phone (407) 823-2679
Faculty: Abramowitz, Bogumil, Burnette, Callaman, Eubanks, Fandt, Femald, Goodman, Harrison, Hatfield, Huseman, F. Jones, H. Jones, Leigh, R. Martin, Pullin, Ragusa, Rosenkrantz

The study of management involves an investigation of the processes and techniques of leadership, planning, staffing, and controlling of both small and large organizations.

Course offerings are designed to show the impact of technological factors, the framework for decision-making, and human contributions on productivity, satisfaction of job-related needs, and organizational effectiveness.

A student majoring in management may find a wide variety of career opportunities in business, industry, or government.

Bachelor of Science in Business Administration: Management

Degree Requirements
1. See Undergraduate Degree Requirements
2. Special college and/or department requirements:
   a. Students wanting to major in Management must apply for admission to the major.
   b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   c. A transfer student to this program must take a minimum of twelve (12) semester hours in management at UCF.
3. Required Courses (Students are required to take the three required Management courses and five other courses from the designated Management options.)
   - ISM 3011 Management Information Systems 3 hours
   - MAN 4701 Business Ethics and Society 3 hours
   - MAN 4240 Organization Theory and Behavior 3 hours
4. Restricted Electives (Select a minimum of five courses)
   (The major may select any one of the following areas of concentration.)
   a. Human Resource Management
   - MAN 3301 Personnel Management 3 hours
   - MAN 4129 Managerial Skills in Organizations 3 hours
   - MAN 4310 Personnel Management Issues 3 hours
   - MAN 4350 Training and Development 3 hours
   - MAN 4401 Labor Relations Management 3 hours
b. Management Information Systems

ISM 3xxx  Management Information Systems Techniques  3 hours
ISM 4212  Data Base Management Systems  3 hours
ISM 4113  Information Systems Analysis and Design  3 hours
ISM 4130  Implementing Information Systems  3 hours
ISM 4220  Distributed Information Systems  3 hours

c. Production/Operations Management

MAN 4029  Management of Service Organizations  3 hours
MAN 4521  Production Planning and Control  3 hours
MAN 4572  Procurement Management  3 hours
MAN 4854  Management Science  3 hours
MAN 4595  Automated Materials Planning  3 hours

d. General Management

MAN 4129  Managerial Skills in Organizations  3 hours
MAN 4600  International Management  3 hours

Three additional courses to be selected from any two of the other MAN concentration areas  9 hours

5. Electives

Total Semester Hours Required  120

MINOR (For Business and Non-Business Majors)

The College of Business Administration and the Department of Management offer a minor in Management Information Systems consisting of 27 semester hours.

Required courses: ACG 2001, ACG 2301, CGS 3000, MAN 3025, PHI 3130, ISM 3011, ISM 4212, ISM 4113, ISM 4130.
Marketing encompasses the total system of interacting business activities designed to plan, price, promote, and distribute products and services to customers.

The marketing curriculum concentrates on developing the student’s ability to understand, interpret, and measure market demand and to understand the blending of product, pricing strategies, promotional strategies, and distribution.

Bachelor of Science in Business Administration: Marketing

Degree Requirements
1. See Undergraduate Degree Requirements
2. Special college and/or department requirements:
   a. Students wanting to major in Marketing must apply for admission to the major.
   b. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   c. A transfer student to this program must take a minimum of twelve (12) semester hours in marketing at UCF.
   d. Students majoring in Marketing must earn a grade of “C” or better in each course applied toward the major, and a 2.0 overall average in the major. MAR 3023 is included in this requirement.
3. Required Courses
   MAR 3503 Consumer Market Behavior 3 hours
   MAR 3613 Marketing Research and Information Systems 3 hours
   MAR 3823 Marketing Management 3 hours
   MAR 4803 Marketing Strategy 3 hours
4. Restricted Electives
   Minimum of 3 courses
   MAR 3323 Advertising and Promotion Management 3 hours
   MAR 3403 Sales Management 3 hours
   MAR 4831 Product Management 3 hours
   MAR 4231 Retail Management 3 hours
   MAR 4203 Marketing Channel Systems 3 hours
   MAR 4156 International Marketing 3 hours
   MAR 4453 Industrial Marketing 3 hours
   MAR 4071 Contemporary Marketing Issues 3 hours
   MAR 4841 Services Marketing 3 hours
5. Electives
   Total Semester Hours Required 120

Majors who meet departmental criteria are also eligible to apply for a marketing internship (MAR 3940) or the small business consulting class (MAR 5941), each of which is assigned three hours of elective credit. However, neither of these two courses can be counted as one of the restricted electives required of marketing majors.
COLLEGE OF EDUCATION

UNDERGRADUATE PROGRAMS
Art Education (BS)
Early Childhood Education (BS)
Elementary Education (BS)
English Language Arts Education (BS)
Exceptional Child (BS)
Foreign Language Education (BS)
Mathematics Education (BS)
Physical Education (BS)
Science Education (BS)
Social Science Education (BS)
Vocational Education and Industry Training (BS)

GRADUATE PROGRAMS*

Master Programs
Business Education (M.Ed.)
Counselor Education (MA, M.Ed)
Educational Leadership (MA, M.Ed)
Educational Media (MA, M.Ed)
Elementary Education (MA, M.Ed)
English Language Arts Education (MA, M.Ed)
Exceptional Child (MA, M.Ed)
Instructional Systems (MA)
Instructional Technology/Media (MA, M.Ed)
Mathematics Education (MA, M.Ed)
Music Education (MA, M.Ed)
Physical Education (MA, M.Ed)
Reading Specialist (M.Ed)
School Psychology (Ed.S.)
Science Education (MA, M.Ed)
Social Science Education (MA, M.Ed)
Vocational Education and Industry Training (MA, M.Ed)

Doctoral and Specialist Programs
Curriculum and Instruction (Ed.S, Ed.D)
Educational Leadership (Ed.S, Ed.D)
School Psychology (Ed.S)

*See the Graduate catalog for information.
The role of the College of Education at the undergraduate level is to prepare students for careers as elementary, secondary, exceptional, physical, and vocational education teachers. The program of studies includes three components: general education, a subject matter specialization(s), and a teacher education component that addresses the professional knowledge and practical experience future teachers need in order to successfully teach children and youth in public school or private school settings.

The College of Education offers Bachelor of Science degrees with the following majors:

- Art Education
- Early Childhood Education
- Elementary Education
- English Language Arts Education
- Exceptional Child Education
- Foreign Language Education
- Mathematics Education
- Physical Education
- Science Education
- Social Science Education
- Vocational Education and Industry Training

Admission to the University of Central Florida does not imply admission to the College of Education. Students will only be allowed to enroll in the 3000/4000 level courses taught by the College of Education after they have been admitted to the College. Students admitted to the College of Education will need to meet additional requirements in order to be fully admitted to Teacher Education.

Admission to the College of Education

Admission to the College will be granted when students meet the following requirements:

- complete 60 hours including the University General Education program or its equivalent, i.e. an A.A. degree from an approved Florida community college or state university
- have on file in the University admissions office a score at or above the 40th percentile on the SAT (840) or ACT (20 enhanced) and a 2.5 overall GPA.
- complete 3 parts of the CLAST examination

Admission to Teacher Education

Admission to Teacher Education will be granted when students who have been admitted to the College of Education meet the following requirements:

- have on file in the University admissions office passing scores on all parts of the College Level Academic Skills Test (CLAST)
- present an overall GPA of 2.5
- achieve a "C" or better grade in EDG 4321, Teaching Strategies, including successful completion of the tutorial component or equivalent
- complete a formal application for admission to a particular teacher education program
- be recommended by the faculty of the department of the student's major
- meet any special departmental requirements

Non-Degree Program (Initial Certification Only)

All students who have earned a Baccalaureate degree from an accredited institution and who wish to be certified in elementary education must complete an undergraduate or master's degree in elementary education. For other certification areas for which the College has programs, students may elect to complete 1) an undergraduate degree 2) a graduate degree or 3) an alternative program as a post-baccalaureate student. Students must meet regular admission requirements for the College of Education and Teacher Education.
Teacher Education Curriculum

The professional teacher education curriculum is designed to provide students the opportunity to develop the professional knowledge, understandings, and competencies required for entry into the profession of teaching. Particular attention is given in the curriculum to the following:

- knowledge and understanding of the growth and development of children and youth
- knowledge and understanding of how children and youth learn
- knowledge and skills for accurately assessing and evaluating student performance
- knowledge and understanding of the role and function of schools and teachers in a free society to design educational teaching objectives
- ability to plan and implement effective teaching strategies
- ability to utilize computers and other forms of technology in teaching
- ability to work with culturally diverse populations

Common Body of Professional Knowledge

Department of Educational Foundations, ED 243, Phone (407) 823-2427

The following course work provides the foundation of professional knowledge and understanding and is required of all majors:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
</tr>
<tr>
<td>EDG 4324</td>
<td>Teaching Strategies II</td>
<td>3</td>
</tr>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

Student Internships

Interim Assistant Dean: M. Miller, ED 115, Phone (407) 823-2436
Directors: R. Martin, H. Hall

The internship components of the professional program include early and continuous field experiences which provide students opportunities to develop skills and instructional competence. The internship program provides students a broad range of instructional experiences in various school settings which are developed through cooperative planning with local school administrators and teachers.

Field experience is an integral part of every degree program and consists of two major components. Placement of students is the responsibility of the College of Education. Students are placed in public schools that have been approved as Student Internship Centers.

Internship I is a six semester hour credit experience. Students are assigned to work with certified supervising teachers under the direction of a College faculty coordinator. The program provides the student experiences at different grade levels and classroom settings for the purpose of developing specific instructional skills and knowledge and understanding of schooling. Students are enrolled in a limited number of related professional courses during the experience with the consent of their department chair. Application is made through the Office of Student Internships.

Admission to Internship I is restricted to those students who have been admitted to the Teacher Education program. A 2.5 overall GPA is required when application is submitted. Deadlines are as follows:

- Fall Semester: February 15 (preceding semester)
- Spring Semester: September 15 (preceding semester)

Internship II is a twelve-hour experience normally completed during the student's last semester. The student is placed in an approved school internship center under a supervising teacher and College coordinator. Students are expected to develop and execute instructional plans and to demonstrate the competencies required for temporary certification. The internship is considered a full-time experience, and students are permitted to enroll in other classes only with the consent of their department chair.

Admission to Internship II requires that the student has successfully completed requirements of Internship I and possesses at the time of application, a 2.5 G.P.A. in the area of content specialization, a 2.5 G.P.A. in the professional education sequence, and a 2.5 G.P.A. overall. Students must also be approved for admission by the faculty in the department of the student's major.
Application is made through the office of Student Internships. Application deadlines are as follows:

- **Fall Semester**: February 15 (preceding semester)
- **Spring Semester**: September 15 (preceding semester)

**Graduation Requirements for a Two-Year Temporary Certificate**

To qualify for graduation, a student must have a 2.5 G.P.A. in all course work, a 2.5 G.P.A. in the area of content specialization, and a 2.5 G.P.A. in the professional course sequence. All College of Education undergraduate curricula fulfill State of Florida academic requirements for temporary certification. College of Education graduates who desire to teach outside Florida must meet certification requirements of the state in which they intend to seek a teaching position and should contact the appropriate Director of Teacher Education, State Department of Education for specific requirements.

All applicants for the Professional Teaching Certificate must demonstrate satisfactory completion of the Professional Orientation Program requirements and pass the College Level Academic Skills Test (CLAST), the Professional Education Test, and a Subject AREA Examination in the certification area.

**DEPARTMENT OF EDUCATIONAL FOUNDATIONS**

Interim Chair: Larry C. Holt, ED 243, Phone (407) 823-2426

Faculty:
- Professors: Cowgill, Dziuban, Kysilka, Lange, Manning
- Associate Professors: Beadle, Biramiah, Blume, Hiett, Miller, Sciortino, Sullivan, Wood
- Assistant Professors: Allen, Banks, Chang, Hutchinson
- Instructors: Ericson

The Department of Educational Foundations teaches the core of professional courses that address the competencies and skills needed by all teachers. Foundation courses are also available for students pursuing graduate degrees in teacher education.

**DEPARTMENT OF EDUCATIONAL SERVICES**

Chair: Robert M. Bollett, ED 318, Phone (407) 823-2596

Faculty:
- Professors: Baumbach, Bozeman, Hernandez, Johnson, Lynn, Rothberg
- Associate Professors: Cornell, Driscoll, Orwig, Tubbs
- Assistant Professors: Balado, Creamer, Lee, B. Murray, K. Murray, Pawlas, Shephard

The focus of the Department of Educational Services is to provide training for specialists in school and non-school environments. Certification programs and masters level (M.A. or M.Ed.) graduate programs are available in Counselor Education, Educational Leadership, and Instructional Technology. The Educational Specialist (Ed.S.) is offered in Educational Leadership and School Psychology. The Doctor of Education (Ed.D) degree is offered in Educational Leadership.

**DEPARTMENT OF EXCEPTIONAL AND PHYSICAL EDUCATION**

Interim Chair: John W. Powell, ED 214 Phone (407) 823-2598

Faculty:
- Professors: Midgett, Olson, Platt, Rohrer
- Associate Professors: Bell, Coutinhno, A. Cross, L. Cross, Gergley, Higginbotham, Miller, Patton, Powell
- Assistant Professors: Clark, Martin, Mitchell, Renner

Undergraduate academic major programs leading to bachelor's degrees and certification are offered in Exceptional Education and Physical Education. The Exceptional Education program includes specialties in: (a) emotionally handicapped; (b) mentally handicapped and (c) specific learning disabilities at the K-12 levels. The Physical Education program is a K-8 specialization. In addition, secondary certification programs are available. Students are responsible for completion of program requirements and are encouraged to review their programs with an assigned advisor.
# Bachelor of Science: Exceptional Student Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 32 hours

## Preprofessional Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
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</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology OR</td>
<td>3</td>
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<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td></td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td></td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Math</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1060</td>
<td>Intro to Computer Science</td>
<td>3</td>
</tr>
</tbody>
</table>

## Prerequisites to Internship I

- **EDG 4321** Teaching Strategies I 4 hours
- **RED 3012** Basic Foundations of Reading 3 hours
- **EEX 3010** Intro to Special Education 3 hours
- **EEX 3241** Methods for Academic Skills for Exceptional Students 4 hours

*RECOMMENDED PRIOR TO INTERNSHIP I*

## Internship I

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE 3943</td>
<td>Internship I (K-12)</td>
<td>6</td>
</tr>
</tbody>
</table>

## Additional Professional Requirements

- **EDF 3603** Analysis of Educational Foundations 3 hours
- **EDG 4324** Teaching Strategies II 3 hours
- **EDF 4214** Classroom Learning Principles 3 hours

## Specialization Requirements

- **EEX 3102** Language Development and Communication Disorders 3 hours
- **EEX 3221** Assessment of Exceptional Students 3 hours
- **EEX 4601** Intro to Behavior Management 3 hours
- **EEX 3243** Techniques for Exceptional Adolescents-Adults 3 hours
- **EEX 4753** Parent/Professional Collaboration 3 hours
- **MAE 2801** Elementary School Mathematics 4 hours

## Specialization Core

### Emotionally Handicapped Specialization

- **EED 3250** Behavioral Issues of the Emotionally Handicapped 3 hours
- **EED 4243** Teaching Emotionally Handicapped 3 hours
- **EED 4210** Curriculum & Program Adaption E.H. 3 hours

### Learning Disabilities Specialization

- **ELD 4011** Introduction to Specific Learning Disabilities 3 hours
- **LAE 4312** Language Arts in Elementary Schools 3 hours
- **ELD 4242** Program Planning for Specific Learning Disabilities 3 hours

### Mentally Handicapped Specialization

- **EMR 4011** Intro to Mental Retardation 3 hours
- **LAE 4314** Language Arts in Elementary Schools 3 hours
- **EMR 4372** Curriculum Method & Materials for Retarded Persons 3 hours

## Internship II

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ESE 4943</td>
<td>Internship II (K-12)</td>
<td>12</td>
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</tbody>
</table>

Minimum Total Semester Hours Needed 127 hours

In addition to the College of Education requirements, an exceptional education student enrolling in Internship II must have a grade of "C" or better in each exceptional education course.

Students are expected to take courses in a sequence depending on fall or spring semester entrance. See an advisor.
Bachelor of Science: Physical Education K-8
Physical Education 6-12

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements (12)*

<table>
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<tr>
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<td>Fundamentals of Oral Communication</td>
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</tr>
<tr>
<td>PSY 2013 or SYG 2000</td>
<td>General Psychology OR General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104 or MGF 1203</td>
<td>College Algebra OR Finite Math</td>
<td>3</td>
</tr>
<tr>
<td>ZOO 3733C</td>
<td>Human Anatomy</td>
<td>3</td>
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Prerequisites to Internship I

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<td>Teaching Strategies I</td>
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<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
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Internship I

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDE 3942</td>
<td>Internship I Elementary*</td>
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<tr>
<td>PET 3720C</td>
<td>Teaching Physical Education (K-8)</td>
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</tr>
<tr>
<td>PET 3740C</td>
<td>Teaching Physical Education (6-12)</td>
<td>2</td>
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Additional Professional Requirements

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundation</td>
<td>3</td>
</tr>
<tr>
<td>EGD 4324</td>
<td>Teaching Strategies II</td>
<td>3</td>
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Additional Specialization Requirements

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<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>PET 3041</td>
<td>Games Elementary Physical Education Program</td>
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</tr>
<tr>
<td>DAE 3370</td>
<td>Dance &amp; Rhythmics</td>
<td>3</td>
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<tr>
<td>PEP 3204</td>
<td>Gymnastics</td>
<td>3</td>
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<tr>
<td>PET 4035</td>
<td>Motor Development Learning</td>
<td>3</td>
</tr>
<tr>
<td>PET 4312</td>
<td>Biomechanics</td>
<td>3</td>
</tr>
<tr>
<td>PET 4351</td>
<td>Applied Exercise and Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PEO 3011</td>
<td>Team Sports</td>
<td>3</td>
</tr>
<tr>
<td>PEO 3031</td>
<td>Individual Sports and Leisure Activities</td>
<td>3</td>
</tr>
<tr>
<td>PET 4401</td>
<td>Administration and Evaluation in Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PET 4640</td>
<td>Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PET 4724</td>
<td>Physical Education Curriculum Development and History</td>
<td>3</td>
</tr>
<tr>
<td>PET 4622</td>
<td>Human Injuries</td>
<td>3</td>
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</tbody>
</table>

Internship II

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>EDE 4943</td>
<td>Internship II Elementary* OR</td>
<td>12</td>
</tr>
<tr>
<td>ESE 4943</td>
<td>Internship II Secondary*</td>
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</tbody>
</table>

*Students who select K-8 and 6-12 program must have at least one internship at middle grades or high school level.

Additional Courses for 6-12 Certification

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET 4382</td>
<td>Fitness Assessment</td>
<td>3</td>
</tr>
<tr>
<td>PET 3760</td>
<td>Coaching Theory and Officiating</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum Total Semester Hours Needed: 120

Additional Courses for Coaching Endorsement

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET 3760</td>
<td>Coaching Theory and Officiating</td>
<td>3</td>
</tr>
<tr>
<td>PET</td>
<td>Coaching Specific</td>
<td>3</td>
</tr>
</tbody>
</table>

*These courses may be taken prior to UCF enrollment

DEPARTMENT OF INSTRUCTIONAL PROGRAMS

Interim Chair: J. Armstrong, ED 346, Phone (407) 823-2939
Faculty: Professors: Anderson, Blair, Brumbaugh, Clarke, Hall, Hynes, Joels, Martin, Palmer, Thompson
Associate Professors: Armstrong, Bailey, Camp, Cornett, Gurney, Hopkins, Hudson, Paugh, Siebert, Sorg, West, Williams
Assistant Professors: Everett, Gruber, Holmes, Johnson, McGhee, Ortiz, Romjve
Instructors: Buchhoff, Gard, Kiger, Musser
Elementary Education
The career Elementary Education program is planned for students interested in the education of children, six through twelve years of age. Students who major in elementary education are qualified to teach grades one through six upon graduation and receipt of a Florida teaching certificate.

An elementary education major must have the following preparation: (1) a broad general education; (2) a specialized knowledge of content, techniques, and materials needed to teach different elementary school subjects such as art, language arts, reading, mathematics, music, physical education, science and social studies; and (3) professional study which includes planned laboratory activities with children in schools identified as Teacher Education Centers.

Early Childhood Education (kindergarten). In combination with preparation to teach grades one through six, requirements may be met for preparation/certification to teach Kindergarten.

Secondary Education
Career programs are available for prospective teachers who have an interest in working with adolescent students in a specific academic area at the middle, junior, or high school levels. Specializations are available in Biology, Business, Chemistry, English, Foreign Language, Mathematics, Physics, and Social Science.

Art/Music/Foreign Language
Three programs are designed to prepare specialists to teach at both the elementary and secondary levels (K-12). Majors in Art and Foreign Language Education are available. The Bachelor's degree program in Music Education is located in the Department of Music with the Department of Instructional Programs responsible for professional requirements.

Vocational Education and Training Development
The vocational education degree is for individuals in Business/Office Occupations, Industrial/Technical areas or selected Health Occupations who wish to teach their specialization in secondary or post-secondary schools. To be eligible for the degree, students must have worked full time in the occupation for at least two years and must demonstrate competence through an examination or licensure in the area in which they wish to teach. A maximum of 30 semester hours of credit by examination or credit granted through licensing may count toward the degree.

The Training Development Track is designed for individuals who are or who plan to be trainers in business, industry, or health care facilities. This option will not prepare individuals to meet Florida Teacher Certification requirements.

Bachelor of Science: Art Education
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology OR</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td></td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>ART 2201</td>
<td>Design Fundamentals I</td>
<td>3</td>
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</table>

Prerequisites to Internship I
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
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RECOMMENDED:
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
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</table>

Internship I
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDE 3943</td>
<td>Internship I K-12</td>
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Additional Professional Requirements
<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ARE 4351</td>
<td>Methodology for Teaching Art Education I</td>
<td>3</td>
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<tr>
<td>ARE 4352</td>
<td>Methodology for Teaching Art Education II</td>
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170
### Specialization Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ART 2201C</td>
<td>Design Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2202C</td>
<td>Design Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2300C</td>
<td>Drawing Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2301</td>
<td>Drawing Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ART 3110C</td>
<td>Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>ART 3510C</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 3400C</td>
<td>Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ART 3230C</td>
<td>Design in Advertising</td>
<td>3</td>
</tr>
<tr>
<td>ARH 2050</td>
<td>History of Art I</td>
<td>3</td>
</tr>
<tr>
<td>ARH 2051</td>
<td>History of Art II</td>
<td>3</td>
</tr>
<tr>
<td>ARE 4356</td>
<td>Teaching Art Appreciation</td>
<td>3</td>
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<tr>
<td>PGY 3401C</td>
<td>Photography</td>
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### Restricted Electives — Select Two

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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ARE 3662</td>
<td>Community Arts I</td>
<td>3</td>
</tr>
<tr>
<td>ARE 3663</td>
<td>Community Arts II</td>
<td>3</td>
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<tr>
<td>ART 5109C</td>
<td>Crafts Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 3701</td>
<td>Sculpture</td>
<td>3</td>
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<tr>
<td>PHI 3800</td>
<td>Aesthetics</td>
<td>3</td>
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<tr>
<td>PHI 3803</td>
<td>Philosophy and Creativity (PR: PHI 3800)</td>
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</tr>
<tr>
<td>ART 4530</td>
<td>Advanced Painting</td>
<td>3</td>
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<tr>
<td>ART 4166</td>
<td>Metals, Woods</td>
<td>3</td>
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<tr>
<td>ART 4130</td>
<td>Fibers, Fabrics</td>
<td>3</td>
</tr>
<tr>
<td>ARE 3550</td>
<td>Introduction to Art Therapy</td>
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### Internship II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDE 4943</td>
<td>Elementary OR</td>
<td>12</td>
</tr>
<tr>
<td>ESE 4943</td>
<td>Secondary</td>
<td></td>
</tr>
</tbody>
</table>

**Minimum Total Semester Hours Needed: 120**

### Bachelor of Science: Early Childhood Education

The career Early Childhood Education program is planned for students interested in the education of young children, 0 through 8 years of age. Depending on the program option, students majoring in early childhood education are qualified to teach children from age three to grade three or birth to age 4 upon graduation and the receipt of a Florida teaching certificate.

An early childhood education major must have the following preparation: (1) a broad general education; (2) a specialized knowledge of content, including techniques needed to work with young children and families, and (3) professional study which includes planned laboratory activities with young children in schools identified as Teacher Education Centers.

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

#### Preprofessional Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Successful completion of following courses prior to the Junior Year.

   - *ARE 2202* Art & Creativity 3 hours
   - *EEC 2001* Introduction to Early Childhood Education 3 hours
   - *MUE 2210* Music & Movement 3 hours

4. Program Sequence

**Junior: (Fall — 16 SH)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 4402</td>
<td>Cultural Family Systems</td>
<td>3</td>
</tr>
<tr>
<td>EEC 3268</td>
<td>Play Development</td>
<td>3</td>
</tr>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundation</td>
<td>3</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Hours</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>EDF 4214</td>
<td>Learning Principles</td>
<td>3</td>
</tr>
<tr>
<td>LAE 3504</td>
<td>Language Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>EEC 3940</td>
<td>Integration-Internship</td>
<td>1</td>
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<tr>
<td><strong>Junior: (Spring 17 SH)</strong></td>
<td></td>
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</tr>
<tr>
<td>EEX 3455</td>
<td>Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies</td>
<td>4</td>
</tr>
<tr>
<td>EEX 3610</td>
<td>Social &amp; Emotional</td>
<td>3</td>
</tr>
<tr>
<td>RED 3xxx</td>
<td>Emerging Literacy</td>
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<tr>
<td>EEC 3940</td>
<td>Integration-Internship</td>
<td>1</td>
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<tr>
<td>EEX 4751</td>
<td>Parent Involvement</td>
<td>3</td>
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<tr>
<td><strong>Senior: (Fall — 17 SH)</strong></td>
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<tr>
<td>EEC 4603</td>
<td>Guiding Young Children</td>
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<td>EEC 3940</td>
<td>Integration-Internship</td>
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<tr>
<td>EDG 4324</td>
<td>Teaching in the Schools</td>
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</tr>
<tr>
<td>*EEC 4510</td>
<td>Infant/Toddler Care</td>
<td>3</td>
</tr>
<tr>
<td>*EEC 4xxx</td>
<td>Organization &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>*EEC 4271</td>
<td>Early Intervention</td>
<td>3</td>
</tr>
<tr>
<td>*SCE 4023</td>
<td>Science &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td>*RED 4xxx</td>
<td>Development of Literacy</td>
<td>3</td>
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<tr>
<td>*MAE 4300</td>
<td>Exploring Mathematics</td>
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<td><strong>Senior: (Spring — 14 SH)</strong></td>
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<tr>
<td>EEC 4943</td>
<td>Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EEC 4271</td>
<td>Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

Minimum Total Semester Hours Needed

*0-4 certification
*3 years to 3rd grade certification

**Bachelor of Science: Elementary Education**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 31 hours

**Preprofessional Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td></td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Math</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANT 3410</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
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</tr>
<tr>
<td>GEO 3470</td>
<td>World Political Geography</td>
<td>3</td>
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</table>

**Prerequisites to Internship I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
</tr>
<tr>
<td>RED 3012</td>
<td>Foundations of Reading</td>
<td>3</td>
</tr>
<tr>
<td>MAE 2801</td>
<td>Instruction of Mathematics in the Elementary School</td>
<td>4</td>
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</table>

**Internship I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MAE 4326</td>
<td>How Children Learn Math</td>
<td>4</td>
</tr>
<tr>
<td>RED 4519</td>
<td>Diagnostic and Corrective Reading Strategies</td>
<td>3</td>
</tr>
<tr>
<td>SSE 3312</td>
<td>Teaching Social Science in the Elementary Schools</td>
<td>4</td>
</tr>
<tr>
<td>EDE 3942</td>
<td>Internship I Elementary</td>
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**Additional Professional Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>EDG 4324</td>
<td>Teaching in Strategies II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisites to Internship II**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 31 hours
### Additional Specialization Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARE 4313</td>
<td>Art/Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>HLP 4722</td>
<td>Teaching Elementary School Health</td>
<td>3</td>
</tr>
<tr>
<td>LAE 3414</td>
<td>Literature for Children</td>
<td>3</td>
</tr>
<tr>
<td>LAE 4314</td>
<td>Language Arts/Elementary</td>
<td>3</td>
</tr>
<tr>
<td>MUE 3210</td>
<td>Music Elementary School</td>
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<td>SCE 3310</td>
<td>Teaching Science in Elementary School</td>
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</tbody>
</table>

**Internship II**

**EDE 4943**

Elementary

Minimum Total Semester Hours Needed: **12 hours**

### Bachelor of Science: English Language Arts Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

#### Preprofessional Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>CRW 2000</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td></td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Math</td>
<td>3</td>
</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology</td>
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</tbody>
</table>

**Prerequisite to Internship I**

**EDG 4321**

Teaching Strategies

**RECOMMENDED:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
</tr>
<tr>
<td>LAE 4464</td>
<td>Literature for Adolescents</td>
<td>3</td>
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</table>

**Internship I**

**ESE 3940**

Internship I Secondary

**LAE 4360**

English Instructional Analysis

**LAE 4324**

Teaching Language/Composition

**Additional Professional Requirements**

**EDF 3603**

Analysis of Educational Foundations

**EDG 4324**

Teaching Strategies II

#### Specialization Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>LIT 2110</td>
<td>World Literature I OR</td>
<td>3</td>
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<tr>
<td>LIT 2120</td>
<td>World Literature II</td>
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<tr>
<td>ENL 3010</td>
<td>English Literature I to 1798</td>
<td>3</td>
</tr>
<tr>
<td>ENL 3021</td>
<td>English Literature II to 1950</td>
<td>3</td>
</tr>
<tr>
<td>AML 3031</td>
<td>American Literature I</td>
<td>3</td>
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<tr>
<td>AML 3051</td>
<td>American Literature II</td>
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</tr>
<tr>
<td>LIT 3000</td>
<td>Literary Analysis</td>
<td>3</td>
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<tr>
<td>ENC 3311</td>
<td>Advanced Expository Writing</td>
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</tr>
<tr>
<td>LIN 4680</td>
<td>Modern English Grammar OR</td>
<td>3</td>
</tr>
<tr>
<td>LIN 2670</td>
<td>Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>CRW 3003</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Restricted Electives (6 SH)**

Two English courses approved by advisor

**Internship II**

**ESE 49443**

Internship II Secondary

Minimum Total Semester Hours Needed: **120 hours**

### Bachelor of Science: Foreign Language Education — French

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 33 hours

#### Preprofessional Requirements

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology OR</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>
MAC 1104  College Algebra OR
MGF 1203  Finite Math OR
FRE 2201  Intermediate French Language and Civilization

Prerequisites to Internship I
EDG 4321  Teaching Strategies I
RECOMMENDED:
EDF 4214  Classroom Learning Principles

Internship I
EDE 3940  K-12

Additional Professional Requirements
FLR 4063  Foreign Language Instructional Analysis
FLE 4xxx  Foreign Language Methods K-6
EDG 3603  Analysis of Educational Foundations
EDG 4324  Teaching Strategies II

Specialization Requirements
FLE 3063  Foreign Language as Human Behavior
FRE 3244  French Conversation
FRE 3240  French Composition
FRW 3100  Survey French Lit I
FRW 3101  Survey French Lit II

Restricted Electives
5 upper division courses in French (with advisor approval)

Cognate Requirements
LIN 3010  Principles of Linguistics OR
LIN 4440  Sounds and Forms of Language OR
LIN 4801  Language and Meaning
ANT 3410  Cultural Anthropology (Anthropology II)

Internship II
EDE 4943  Internship II Elementary OR
ESE 4943  Internship II Secondary

Minimum Total Semester Hours Needed 125

Bachelor of Science: Foreign Language Education — Spanish

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

Preprofessional Requirements
SPC 1600  Fundamentals of Oral Communication
PSY 2013  General Psychology OR
SYG 2000  General Sociology
MAC 1104  College Algebra OR
MGF 1203  Finite Math
SPN 2231  Intermediate Spanish Language and Civilization

Prerequisites to Internship I
EDG 4321  Teaching Strategies I
RECOMMENDED:
EDF 4214  Classroom Learning Principles

Internship I
EDE 3940  K-12

Additional Professional Requirements
FLE 4360  Foreign Language Instructional Analysis
FLE 4xxx  Foreign Language Methods K-6
EDG 3603  Analysis of Educational Foundations
EDG 4324  Teaching Strategies II
Specialization Requirements

FLE 3063  Foreign Language as Human Behavior  2 hours
SPN 3241  Spanish Conversation  3 hours
SPN 3420  Spanish Composition  3 hours
SPW 3100  Survey Spanish Lit I  3 hours
SPW 3101  Survey Spanish Lit II  3 hours

Restricted Electives

4 upper division courses in Spanish  (with advisor approval)

Cognate Requirements

LIN 3010  Principles of Linguistics OR
LIN 4440  Sounds and Forms of Language OR
LIN 4801  Language and Meaning  3 hours
ANT 3410  Cultural Anthropology (Anthropology II)  3 hours

Internship II

EDE 4943  Internship II Elementary OR
ESE 4943  Internship II Secondary  12 hours

Minimum Total Semester Hours Needed  125

Bachelor of Science: Mathematics Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

Preprofessional Requirements

SPC 1600  Fundamentals of Oral Communication  3 hours
PSY 2013  General Psychology
MAC 1104  College Algebra OR
MGF 1203  Finite Math  3 hours
CGS 1060  Introduction to Computer Science  3 hours

Prerequisite to Internship I

EDG 4321  Teaching Strategies I  4 hours

EDF 4214  Classroom Learning Principles  3 hours

Internship I

EDE 3940  Internship I Secondary  6 hours

Additional Professional Requirements

MAE 4360  Mathematics Instructional Analysis  4 hours
EDF 3603  Analysis of Educational Foundations  3 hours
EDG 4324  Teaching Strategies II  3 hours

Specialization Requirements

MAC 3311  Calculus with Analytic Geometry I  4 hours
MAC 3312  Calculus with Analytic Geometry II  4 hours
MAS 3105  Elementary Linear and Matrix Algebra  3 hours
MAS 3203  Number Theory  3 hours
MHF 2300  Logic and Proof in Mathematics  3 hours
MTG 4212  Modern Geometry  4 hours
STA 3023  Statistical Methods I  3 hours
MAE 4634  Programs in Teaching of Mathematics  3 hours
MHF 4404  History of Mathematics  3 hours
CGS 1060  Introduction to Computer Science  3 hours

Restricted Electives — Selected One (with advisor approval)

MAC 1114  College Trigonometry  3 hours
MAC 3313  Calculus with Analytic Geometry III  3 hours
MAD 4203  Combinatorics and Graph Theory  3 hours
MAC 4301  Algebra Structure  3 hours
MAS 3103  Linear Algebra  3 hours

Internship II Internship

ESE 4943  Internship II Secondary  12 hours

Minimum Total Semester Hours Needed  125
Bachelor of Science: Science Education — Biology

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

Preprofessional Requirements

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Prerequisites to Internship I

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Internship I

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Additional Professional Requirements

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Specialization Requirements

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<td>PCB 3023</td>
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<td>PCB 4xxx</td>
<td>Biology and Evolution OR</td>
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Support Science Requirements

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<td>Chemistry Fundamentals I</td>
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<td>CHM 2046</td>
<td>Chemistry Fundamentals II</td>
<td>3</td>
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<td>CHM 2046L</td>
<td>Chemistry Fundamentals Lab</td>
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<tr>
<td>PHY 3053C</td>
<td>College Physics I</td>
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<td>GLY 1030</td>
<td>Geology and its Applications</td>
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Internship II

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<tr>
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<tbody>
<tr>
<td>ESE 4943</td>
<td>Internship II Secondary</td>
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</table>

Minimum Total Semester Hours Needed 125

Bachelor of Science: Science Education — Chemistry

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

Preprofessional Requirements

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
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<td>STA 2014</td>
<td>Principles of Statistics OR</td>
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<td>STA 3023</td>
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<td>MAC 1104</td>
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<td>PSY 2013</td>
<td>General Psychology OR</td>
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Prerequisite to Internship I

<table>
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<tr>
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<tbody>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
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</table>
RECOMMENDED:
EDF 4214 Classroom Learning Principles 3 hours

Internship I
ESE 3940 Internship I — Secondary 6 hours

Additional Professional Requirements
SCE 4360 Science Instructional Analysis 4 hours
EDF 3603 Analysis of Educational Foundations 3 hours
EDG 4324 Teaching Strategies II 3 hours

Mathematics Requirements
MAC 1114 College Trigonometry 3 hours
MAC 3311 Calculus with Analytic Geometry I 4 hours

Specialization Requirements
Core Requirements
CHM 2045 Chemistry Fundamentals I 4 hours
CHM 2046 Chemistry Fundamentals II 3 hours
CHM 2046L Chemistry Fundamentals Laboratory 1 hour
CHM 3120C Analytical Chemistry 5 hours
CHM 3210 Organic Chemistry I 3 hours
CHM 3211 Organic Chemistry II 3 hours
CHM 3211L Organic Laboratory Techniques I 2 hours
BCH 4053 Biochemistry I 3 hours
CHM 4XXXC Basic Physical Chemistry 4 hours
CHS 3501 Introduction to Forensic Science 3 hours

Support Science Requirements
PHY 3053C College Physics I 4 hours
PHY 3054C College Physics II 4 hours
BSC 2010C General Biology 4 hours
GLY 1030 Geology and Its Applications 3 hours

Internship II
ESE 4943 Internship II — Secondary 12 hours
Minimum Total Semester Hours Needed 125

Bachelor of Science: Science Education — Physics
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

Preprofessional Requirements
SPC 1600 Fundamentals of Oral Communication 3 hours
STA 2014 Principles of Statistics OR 3 hours
STA 3023 Statistical Methods
MAC 1104 College Algebra 3 hours
PSY 2013 General Psychology OR 3 hours
SYG 2000 General Sociology

Prerequisites to Internship I
EDG 4321 Teaching Strategies I 4 hours

EDF 4214 Classroom Learning Principles 3 hours

Internship I
ESE 3940 Internship I — Secondary 6 hours

Additional Professional Requirements
SCE 4360 Science Instructional Analysis 4 hours
EDF 3603 Analysis of Educational Foundations 3 hours
EDG 4324 Teaching Strategies II 3 hours

Mathematics Requirements
MAC 3311 Calculus with Analytic Geometry I 4 hours
MAC 3312 Calculus with Analytic Geometry II 4 hours
MAC 3313 Calculus with Analytic Geometry III 4 hours
MAC 3302 Differential Equations 3 hours
Additional Specialization Requirements

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<td>PHY 3054C</td>
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<td>PHY 3048</td>
<td>Physics for Engineers and Scientists I</td>
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<td>PHY 3048L</td>
<td>Physics Laboratory for Engineers and Scientists I</td>
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<td>PHY 3049</td>
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<td>PHY 3101</td>
<td>Modern Physics</td>
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<td>PHY 3752C</td>
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<td>PHY 3323</td>
<td>Electricity and Magnetism</td>
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Select 3 SH from the Following:

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<td>PHY 3802L</td>
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Support Science Requirements

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<td>CHM 2045</td>
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<tr>
<td>BSC 2010C</td>
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<td>GLY 1030</td>
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Internship II

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<tbody>
<tr>
<td>ESE 4943</td>
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Minimum Total Semester Hours Needed 125

Bachelor of Science: Social Science Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements

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<tr>
<td>SYG 2000</td>
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<td>College Algebra OR</td>
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<td>MGF 1203</td>
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Prerequisite to Internship I

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<tbody>
<tr>
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EDF 4214 Classroom Learning Principles 3 hours

Internship I

ESE 3940 Internship I — Secondary 6 hours

Additional Professional Requirements

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Specialization Requirements

Lower Division Requirements:

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<td>ECO 2023</td>
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<td>Western Civilization I</td>
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<td>EUH 2001</td>
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<td>U.S. History: 1492-1877</td>
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<td>AMH 2020</td>
<td>U.S. History: 1877-Present</td>
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<td>POS 2041</td>
<td>American National Government</td>
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Upper Division Requirements:
- CPO 3103 Comparative Politics 3 hours
- GEO 3370 Resources Geography 3 hours
- GEO 3470 World Political Geography 3 hours
- AMH 4231 U.S. History: 1914-1945 3 hours
- AMH 4270 U.S. History: 1945-Present 3 hours

Restricted Electives (9 hrs.)
- American History (Select one)
  - AMH 3370 American Economic History 3 hours
  - AMH 4130 American Revolution 3 hours
  - AMH 4170 Civil War and Reconstruction 3 hours
- European History (Select one with approval of advisor.)
- Political Science (Select one)
  - POS 3122 State Government and Public Policy 3 hours
  - POS 3273 Voting and Elections 3 hours
  - INR 3002 International Relations — Theory and Practice 3 hours

Internship II
- ESE 4943 Internship II — Secondary 12 hours

Minimum Total Semester Hours Needed: 120

**Bachelor of Science: Vocational Education and Industry Training**

**Business Education**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

**Preprofessional Requirements**
- SPC 1600 Fundamentals of Oral Communication 3 hours
- MAC 1104 College Algebra OR 3 hours
- MGF 1203 Finite Mathematics 3 hours
- PSY 2013 General Psychology OR 3 hours
- SYG 2000 General Sociology 3 hours

**Prerequisites to Internship I**
- Track A: EDG 4321 Teaching Strategies I 4 hours
- Track B: EVT 3365 General Methods/Testing Evaluation in Vocational Education

**Internship I**
- ESE 3940 Internship I — Secondary 6 hours

**Professional Preparation (Select A or B)**

**A. Area of Emphasis — Public School Teaching**
- EDF 3603 Analysis of Educational Foundations 3 hours
- EDF 4214 Classroom Learning Principles 3 hours
- Tech elective approved by advisor 3 hours

**B. Area of Emphasis — Industry Training**
- EVT 4169 Curriculum Development Techniques for Industry Training 3 hours
- ADE 4382 Teaching Adult Learners 3 hours
- EME 5054 Instructional Systems: A Survey of Applications 3 hours

**Instructional Core (Select A or B)**

**A. Area of Emphasis — Public School Teaching**
- EVT 3502 Special Needs of Vocational Students 4 hours
- EVT 4065 Principles and Practices of Vocational Education 4 hours
- EDG 4324 Teaching Strategies II 3 hours

**B. Area of Emphasis — Industry Training**
- EVT 3502 Special Needs of Vocational Students 4 hours
- EVT 4065 Principles and Practices of Vocational Education 4 hours
EVT 4368  Advanced Teaching Techniques for Vocation Education  3 hours

Special Methods of Teaching
BTE 4410  Course Construction in Business Education  4 hours

Directed Field Experience
ESE 4943  Internship II — Secondary  12 hours

Occupational Specialization
OST 1335  Business Communication  3 hours
OST 1110  Intermediate Typewriting  3 hours
OST 2120  Advanced Typewriting  3 hours
OST 2766  Word Perfect  3 hours
ACG 2001  Principles of Accounting I  3 hours
ACG 2011  Principles of Accounting II  3 hours
ECO 2013  Principles of Economics I  3 hours
ECO 2023  Principles of Economics II  3 hours
BUL 2111  Business Law I  3 hours

Nine (9) semester hours of upper division coursework from the College of Business Administration

Minimum Total Semester Hours  120

Bachelor of Science: Vocational Education and Industry Training

Health Occupations

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements

SPC 1600  Fundamentals of Oral Communication  3 hours
MAC 1104  College Algebra OR  3 hours
MGF 1203  Finite Mathematics  3 hours
PSY 2013  General Psychology OR  3 hours
SYG 2000  General Sociology  3 hours

Professional Preparation (Select A or B)

A. Area of Emphasis — Public School Teaching
EDF 3603  Analysis of Educational Foundations  3 hours
EDF 4214  Classroom Learning Principles  3 hours
Tech elective with advisor approval  3 hours

B. Area of Emphasis — Industry Training
EVT 4169  Curriculum Development Techniques for Industry Training  3 hours
ADE 4382  Teaching Adult Learners  3 hours
Tech elective with advisor approval  3 hours

Instructional Core
EVT 3365  General Methods/Testing Evaluation in Vocational Education  4 hours
EVT 3502  Special Needs of Vocational Students  4 hours
EVT 4065  Principles and Practices of Vocational Education  4 hours
EVT 4368  Advanced Teaching Techniques for Vocational Education  3 hours

Special Methods of Teaching
EVT 3312  Course Construction in Health Occupations Education  4 hours

Directed Field Experience
EDG 4941  Directed Field Experience  12 hours

Specialization (30)
1. Students must complete an area of specialization through (1) occupationally specific coursework and/or (2) credit by examination. Occupationally specific coursework may be lower or upper division and may be transferred from accredited educational institutions offering college credit. Credit by examination may be completed by
meeting the state or national licensure or registration requirements for the student’s area of specialization. A copy of current licensure/registration is required. Specialization credit must be completed before student is eligible for EDG 4941, Directed Field Experience.
2. Students must provide documentation of at least two years of occupationally related work experience prior to graduation.

Electives (10)
Must be upper division courses.

Minimum Total Semester Hours 120

Bachelor of Science: Vocational Education and Industry Training
Industrial/Technical
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements
SPC 1600 Fundamentals of Oral Communication 3 hours
MAC 1104 College Algebra OR 3 hours
MGF 1203 Finite Mathematics
PSY 2013 General Psychology OR 3 hours
SYG 2000 General Sociology

Professional Preparation (Select A or B)
A. Area of Emphasis — Public School Teaching
EDF 3603 Analysis of Educational Foundations 3 hours
EDF 4214 Classroom Learning Principles 3 hours
Tech elective with advisor approval 3 hours
B. Area of Emphasis — Industry Training
EVT 4169 Curriculum Development Techniques for Industry Training 3 hours
ADE 4382 Teaching Adult Learners 3 hours
Tech elective with advisor approval 3 hours

Instructional Core
EVT 3365 General Methods/Testing Evaluation in Vocational Education 4 hours
EVT 3502 Special Needs of Vocational Students 4 hours
EVT 4065 Principles and Practices of Vocational Education 4 hours
EVT 4368 Advanced Teaching Techniques for Vocational Education 3 hours

Special Methods of Teaching
EVT 3371 Course Construction Industrial Education 4 hours

Directed Field Experience
EDG 4941 Directed Field Experience 12 hours

Specialization (30)
1. Students must complete an area of specialization through (1) occupationally specific coursework and/or (2) credit by examination. Occupationally specific coursework may be lower or upper division and may be transferred from accredited educational institutions offering college credit. Credit by examination may be completed by meeting the state or national licensure or registration requirements for the student’s area of specialization. A copy of current licensure/registration is required. Specialization credit must be completed before student is eligible for EDG 4941, Directed Field Experience.
2. Students must provide documentation of at least two years of occupationally related work experience prior to graduation.

Electives (10)
Must be upper division courses.

Minimum Total Semester Hours 120
COLLEGE OF ENGINEERING

UNDERGRADUATE PROGRAMS

ENGINEERING
   Aerospace Engineering (BSAsE)
   Civil Engineering (BSCE)
   Computer Engineering (BSCpE)
   Electrical Engineering (BSEE)
   Environmental Engineering (BSEnvE)
   Industrial Engineering (BSIE)
   Mechanical Engineering (BSME)

ENGINEERING TECHNOLOGY
   Electrical Engineering Technology (BSEET)
      concentrations in
      Electrical Systems and
      Information Systems
   Engineering Technology (BSET)
      concentrations in
      Design and
      Operations

GRADUATE PROGRAMS*

Master Degree Programs
   Civil Engineering
      Transportation Systems
      Water Resources
      Structures and Foundations
   Environmental Engineering
      Environmental Sciences
   Electrical Engineering
      Optical Sciences and Engineering
   Computer Engineering
   Industrial Engineering
      Manufacturing Engineering
      Computer Integrated Manufacturing
      Engineering Management
      Product Assurance Engineering
      Operations Research
      Simulation Systems
   Mechanical Engineering
      Aerospace Systems
      Materials Sciences and Engineering
      Mechanical Systems
      Thermo-Fluids

Doctoral Degree Programs
   Civil Engineering
   Computer Engineering
   Electrical Engineering
   Environmental Engineering
   Industrial Engineering
   Mechanical Engineering

*See the Graduate catalog.
COLLEGE OF ENGINEERING

Dean: M.P. Wanielista, ENGR 107, Phone (407) 823-2156
Associate Dean: S.L. Rice, ENGR 107, Phone (407) 823-2156
Associate Dean: R.N. Miller, ENGR 281, Phone (407) 823-2455
Director of Graduate Affairs: F.S. Gunnerson, ENGR 281, Phone (407) 823-2455
Director of Undergraduate Affairs: J.K. Beck, ENGR 281, Phone (407) 823-2455

Students who seek a challenging technical career in research and development, design, technical sales, manufacturing, management, teaching, or other professions requiring a methodical, creative solution to problems should seriously consider pursuing an education in engineering. The internationally-recognized faculty of the College of Engineering, together with its strong curricula of undergraduate and graduate programs provide an opportunity for ambitious, responsible men and women to become the leaders of our increasingly technological world. Because of the significance of science and technology to our everyday lives, today's engineer must be aware of the impact of his or her creations on society. In addition to the public health and welfare, aesthetics, economics, and energy-use implications, engineers must also consider environmental, sociological, and other "humanistic" costs. The engineering degree is also recognized as a valuable asset to those entering other professional pursuits such as the medical or law professions, architecture, or even politics.

PROGRAM OBJECTIVES

The College of Engineering seeks to produce well-qualified graduates in specifically selected disciplines, conduct research efforts of significance to the state and to the nation, and to provide technical services and expertise to the local community. In keeping with the national aspiration of maintaining excellence in science and engineering, the primary objectives of the undergraduate programs are to:

- Encourage the mastery of engineering theories and principles
- Develop competence in design, modeling, and problem solving
- Provide hands-on experience for experiment design and safety
- Improve skills in oral, written, and graphical communication
- Introduce the student to ethical and professional demeanor

COLLEGE ORGANIZATION

The College of Engineering is organized into five departments: Civil and Environmental; Electrical and Computer; Industrial; Mechanical and Aerospace; and Engineering Technology. Seven engineering programs and two engineering-technology programs are offered within the five departments. In addition, there are several options or concentrations that are available. All departments (except technology) offer advanced studies leading to master's degrees and the Doctor of Philosophy degree; see the Graduate catalog. The College also houses the Air Force and Army ROTC units for those students wishing to pursue military training while earning their degree.

All programs offered by the College are accredited by the Accrediting Board for Engineering and Technology (ABET). Accreditation insures that these programs satisfy the minimum requirements for acceptance by this nationally-recognized agency for reviewing engineering-degree programs.

UNDERGRADUATE CURRICULA AND DEGREES

The first-year curriculum is nearly common for all undergraduates in that the initial areas of study will concentrate on the basic sciences and mathematics. The General Education Program (see Undergraduate Degree Requirements) is also begun during the first year and, ideally, will be integrated continuously into the entire undergraduate experience. Entering students receive assistance in planning their program and typically will undergo an orientation to the University and the College. It is not necessary to choose a major immediately, but students should make that choice as early as possible.

The engineering curricula offers programs of study leading to Bachelor of Science Degrees in aerospace, computer, civil, electrical, environmental, industrial, and mechanical engineering, as well as electrical engineering technology and engineering technology with
options. Graduation requirements for engineers include the satisfactory completion of the specified minimum number of credit hours (132-136 semester hours) and engineering students must earn a Grade Point Average (GPA) of 2.25 for groups of required courses in their major. The requirement for the engineering technology programs is a minimum of 128 credit hours and corresponding GPA of 2.0.

It is possible for a student to earn two degrees concurrently in two majors, e.g. aerospace and mechanical engineering. The university (catalog) policy states that a minimum of 30 additional residency hours is required; however, the interested student should consult with his/her advisor for the specific college and/or departmental requirements. In general, the student is encouraged to spend the time more efficiently pursuing a graduate degree.

Students entering any of the engineering programs should be adequately prepared at the secondary school (or higher) level in the following basic disciplines, in addition to the minimum University entrance requirements.

- mathematics through trigonometry
- physics
- chemistry
- biology
- introduction to computers; computer programming

These requirements should not be ignored; those students lacking these credits may be required to complete additional coursework which is not applied toward the degree.

TRANSFER PROGRAM

Students having a non-engineering degree, or those holding a two-year degree from a community college may apply for admission to the College of Engineering through the University Admissions Office. Those applicants having the Associate of Arts degree from a Florida community college are essentially guaranteed admission; there are no additional criteria or entrance restrictions for the College. The Florida common-course-numbering system ensures that those courses being transferred into the student’s program can be readily evaluated for concurrence with required courses. Petitioning for those courses under question, or those from other university systems, will be accomplished through the college Office of Undergraduate Affairs. It should be noted that students may complete all of their requirements in the General Education Program, as well as the requirements for mathematics and the basic sciences, at most of Florida’s community colleges. Those students entering from the community colleges may use the catalog year associated with their entry into that earlier program assuming they have maintained their enrollment; see Undergraduate Degree Requirements. It is also possible to take some lower-division courses concurrently at the University and the community college using the Transient Student form available from Undergraduate Affairs. This option is not available during the last 30 hours of study.

Transfer students must also be aware that: 1) at least 25 percent of their program credit hours must be done in residency, and 2) if they should enter with less than 60 semester hours of credit, they must enroll for at least 9 hours, on campus, during any summer session.

THE ENGINEERING INTERN (EI) EXAMINATION

The EI (Engineering Fundamentals) examination is a state-administered, nationally-sponsored test that represents a defined standard of technical competency and serves as an initial step toward registration as a Professional Engineer. Students in the civil, environmental, and industrial engineering programs must take the examination prior to graduation. Students in the other disciplines are encouraged to sit for the exam, since they probably will never be better prepared. If a career change should occur that requires registration, it is one less step they would need to accomplish. The examination is conducted in the months of April and October with applications due in mid-December and mid-June, respectively. Applications are available in the Office of Undergraduate Affairs.

STUDENT ACTIVITIES

Each major in the College of Engineering has a technical society open to all students enrolled in the major; in most cases, they are student chapters of nationally recognized professional organizations. The students who maintain membership in these societies may meet with the senior industrial members at regularly scheduled meetings and are rewarded, both socially and educationally, by such contacts. In addition, many of these groups are
involved in inter-university design/presentation/model competitions that can further enhance the total university experience.

**PROGRAM SCHEDULES**

Following is a listing of tentative schedules for entering students in each of the degree programs, shown for the purpose of indicating the level of effort required to complete the program in a timely manner, and to provide information regarding course prerequisites. The student should study his/her relevant schedule carefully and refer to the catalog or a department advisor to answer questions before they become a problem.

**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**

**Chair:** A.E. Radwan, EN 207, Phone (407) 823-2841  
**Faculty:** Al-Deek, Block, Carroll, Chopra, Cooper, Dietz, Hartman, Head, Kunnath, Kersten, Kuo, Leftwich, Mirmirary, Onyemelukwe, Reinhart, J. Taylor, Wanielista, Wayson, Yousef

The Department offers degrees in both Civil Engineering and Environmental Engineering. The Civil Engineering major is concerned primarily with fundamental civil engineering design and analysis in such areas as structures, geotechnic engineering, sanitary engineering, water resources, and transportation engineering. The Environmental Engineering major is concerned primarily with the interactions with humans and their environment and the planning, design, and control of systems for environmental quality management for water, land, and air environments.

**Tentative Course Schedule for Entering Freshmen**

**Civil Engineering — 132 semester hours required**

<table>
<thead>
<tr>
<th><strong>Fall (14 hrs)</strong></th>
<th><strong>Spring (14 hrs)</strong></th>
<th><strong>Summer (10 hours)</strong></th>
<th><strong>SECOND YEAR</strong></th>
<th><strong>THIRD YEAR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>*ENC 1101-English Comp.</td>
<td>*ENC 1102-English Comp.</td>
<td>*ECH 2013-Economics</td>
<td>EGN 3321-Dynamics</td>
<td>Spring (16 hrs)</td>
</tr>
<tr>
<td>*CHM 2045-Chem Fund I/Lab</td>
<td>*CHM 2046-Chem Fund II</td>
<td>*MAC 3312-Calculus II</td>
<td>*SUR 3101-Surveying</td>
<td>CWR 4101C-Hydrology</td>
</tr>
<tr>
<td>*MAC 3311-Calculus I</td>
<td>*MAC 3312-Calculus II</td>
<td>*PHY 3048-Physics Engr I w/Lab</td>
<td>EGN 3331-Mech Materials</td>
<td>*Humanities elective</td>
</tr>
<tr>
<td>*Social Science</td>
<td>*PHYS 3048-Physics Engr I w/Lab</td>
<td>*ECO 2013-Economics</td>
<td>EGN 3373-Prin Elec Engr</td>
<td>CES 4130L-Struct Lab</td>
</tr>
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<td>EGN 3704-Engr &amp; Environ</td>
<td>CES 4102-Structural Anal</td>
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<td>CWR 4201C-Hydraulics</td>
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<tr>
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<td></td>
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<td>CES 4102-Structural Anal</td>
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<td></td>
<td></td>
<td>CWR 4201C-Hydraulics</td>
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<tr>
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<td></td>
<td>EGN 3365-Materials</td>
</tr>
</tbody>
</table>
FOURTH YEAR

Fall (16 hrs)
EGN 4624-Engr Admin
TTE 4004-Transportation Engr
Approved Design Course/2 hrs
CEG 4101C-Geotechnical Engr
CES 4702-Struct Concrete Des
or Technical elective

Spring (15 hrs)
CES 4605-Struct Steel Des
or Technical elective
Approved Design Course/2 hrs
Technical Elective
Technical Elective
ENV 4561-Process Design

Notes: 1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program above.
5) Civil Engineering students must earn at least 33 hours in residence at UCF.

Environmental Engineering — 132 semester hours required

FIRST YEAR

Fall (14 hrs)
*ENC 1101-English Comp
*CHM 2045-Chem Fund. I/Lab
*MAC 3311-Calculus I
*Social Science

Spring (14 hrs)
*ENC 1102-English Comp
*CHM 2046-Chem Fund. II
*MAC 3312-Calculus II
*PHY 3048-Physics Engr I w/Lab

SECOND YEAR

Fall (17 hrs)
*MAP 3302-Differential Equations
EGN 3310-Statics
*PHY 3049-Physics Engr II
EGN 3613-Engr Economics
*SPC 1600 Oral Communication
*Humanities/History

Spring (15 hrs)
EGN 3321-Dynamics
EGN 3331-Mech. of Materials
EGN 3373-Prin Elec Engr
EGN 3704-Engr Environ
*Humanities Elective

THIRD YEAR

Fall (15 hrs)
CWR 3xxx-Fluid Mechanics
EGN 3343 Thermodynamics
*Earth Science, GLY/GEO/BSC
STA 3032-Prob/Statistics Engr
EGN 3365-Materials

Spring (15 hrs)
CWR 4201C-Hydraulics
*POS 2041-Amer Nat Govt
ENV 4121C-Air Pollution
ENV 4351-Solid/Haz Waste
EGN 4624-Engr Admin

FOURTH YEAR

Fall (16 hrs)
Approved Design Course/3 hrs
or EGN 4703-Systems Anal/Control
CWR 4201C-Hydraulics
EES 4202C-Chemical Processes
ENV 4561-Process Design
Technical Elective

Spring (16 hrs)
Approved Design Course/3 hrs
or EGN 4703-Systems Anal/Control
Approved Design Course/3 hrs
Technical Elective
Technical Elective

Notes: 1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program above.
5) Civil Engineering students must earn at least 33 hours in residence at UCF.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Chair: N.S. Tzannes, EN 407, Phone (407) 823-2786
Faculty: Aly, Batarseh, Bauer, Belkerdid, Boreman, Brown, Christodoulou, Chung, Delfyett, DeMara, G. Dixon, Georgiopoulos, Gonzalez, Guenther, Haralambous, Harvey, Kasparis, Klee, Li Kam Wa, Linton, Liou, Malocha, R. Miller, Moharam, Mortazawi, Myler, Petrasko, R. Phillips, Qu, Richie, Soileau, Stickley, Sundaram, Wahid, Weeks, Yuan

The majors in Electrical Engineering and Computer Engineering are designed to present the basic principles, as well as in-depth studies of specific sub-disciplines, such as communication systems, controls, robotics, digital signal and image processing, computer architecture, digital systems, software engineering and knowledge-based systems, electronics, electro-optics, microwaves and antennas, micro-elcronics, and solid-state devices.

Tentative Course Schedule for Entering Freshmen

Computer Engineering — 132 semester hours required

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>[ Fall (15 hrs) ]</th>
<th>[ Spring (17 hrs) ]</th>
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</thead>
<tbody>
<tr>
<td>*MAC 3311-Calculus I</td>
<td>*MAC 3312-Calculus II</td>
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</tr>
<tr>
<td>*ENC 1101-English Comp</td>
<td>*ENC 1102-English Comp</td>
<td></td>
</tr>
<tr>
<td>*Humanities/History</td>
<td>*PHY 3048-Physics Engr I</td>
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</tr>
<tr>
<td>EGS 1111C-Engr Comp Graphics</td>
<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
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<tr>
<td>*ECO 2013-Economics</td>
<td>*SPC 1600-Oral Communication</td>
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<tr>
<th>SECOND YEAR</th>
<th>[ Fall (16 hrs) ]</th>
<th>[ Spring (16 hrs) ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>*MAP 3302-Differential Equations</td>
<td>EGN 3321-Dynamics</td>
<td></td>
</tr>
<tr>
<td>EGN 3310-Statics</td>
<td>or *EGN 3358-Thermo-Fluids</td>
<td></td>
</tr>
<tr>
<td>*PHY 3049-Physics Engr II w/Lab</td>
<td>EGN 3373-Prin Electrical Engr</td>
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<tr>
<td>*Earth Science</td>
<td>EEL 3342C-Intro Digital Circuits</td>
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<tr>
<td>EGN 3420-Engineering Analysis</td>
<td>PHY 3101 Physics Engr III</td>
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<tr>
<td>*Humanities/History</td>
<td>EEL 3801C-Intro Comp Engr</td>
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<tr>
<td>*Social Science</td>
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<tr>
<th>THIRD YEAR</th>
<th>[ Fall (17 hrs) ]</th>
<th>[ Spring (17 hrs) ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEL 3122C-Electrical Networks</td>
<td>EEL 3657-Linear Control Systems</td>
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</tr>
<tr>
<td>STA 3032-Prob. &amp; Statistics for Engrs.</td>
<td>EEL 3307C-Electronics</td>
<td></td>
</tr>
<tr>
<td>EEL 3306-Semiconductor Devices</td>
<td>EEL 4882-Engr. Systems Software</td>
<td></td>
</tr>
<tr>
<td>EEL 4851-Engr. Data Structure</td>
<td>EEL 4767C-Comp. Syst. Design I</td>
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<tr>
<td>*POS 2041-American. Nat'l. Govt.</td>
<td>*Humanities Elective</td>
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</tbody>
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<tr>
<th>FOURTH YEAR</th>
<th>[ Fall (14 hrs) ]</th>
<th>[ Spring (10 hrs) ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEL 4884-Engr Software Design</td>
<td>EEL 4832-Computer Methods</td>
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<tr>
<td>EEL 4768C-Comp. Syst. Des. II</td>
<td>EEL 4012C-Senior Design</td>
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<tr>
<td>EEL recommended elective</td>
<td>EEL recommended elective</td>
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</tbody>
</table>
Notes:
1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program above.
5) Computer Engineering students must earn at least 33 hours in residence at UCF.

**Electrical Engineering — 132 semester hours required**

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall (15 hrs)</strong></td>
<td><strong>Spring (17 hrs)</strong></td>
</tr>
<tr>
<td><em>MAC 3311-Calculus I</em></td>
<td><em>MAC 3312-Calculus II</em></td>
</tr>
<tr>
<td><em>ENC 1101-English Comp</em></td>
<td><em>ENC 1102-English Comp</em></td>
</tr>
<tr>
<td><em>Humanities/History</em></td>
<td><em>PHY 3048-Physics Engr I</em></td>
</tr>
<tr>
<td>EGS 1111C-Engr Comp Graphics</td>
<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
</tr>
<tr>
<td><em>ECO 2013-Economics</em></td>
<td><em>SPC 1600-Oral Communication</em></td>
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<tr>
<td><strong>Summer (10 hours)</strong></td>
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<tr>
<td><em>MAC 3313-Calculus III</em></td>
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<tr>
<td><em>Humanities/History</em></td>
<td></td>
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<tr>
<td><em>Social Science</em></td>
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<tr>
<th>SECOND YEAR</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall (16 hrs)</strong></td>
<td><strong>Spring (16 hrs)</strong></td>
</tr>
<tr>
<td><em>MAP 3302-Differential Equations</em></td>
<td>EGN 3321-Dynamics</td>
</tr>
<tr>
<td>EGN 3310-Statics</td>
<td>or</td>
</tr>
<tr>
<td><em>PHY 3049-Physics Engr II w/Lab</em></td>
<td>EGN 3358-Thermo-Fluids</td>
</tr>
<tr>
<td><em>Earth Science</em></td>
<td>EGN 3373-Prin Electrical Engr</td>
</tr>
<tr>
<td>EGN 3420-Engineering Analysis</td>
<td>EEL 3342C-Intro Digital Circuits</td>
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<tr>
<td>EEL 3122C-Electrical Networks</td>
<td>PHY 3101 Physics Engr III</td>
</tr>
<tr>
<td>STA 3032 Statististics</td>
<td>EEL 3801C-Intro Comp Engr</td>
</tr>
<tr>
<td>EEL 3906-Semiconductor Devices I</td>
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<tr>
<td>EEL 4767C-Comp. Syst. Design I</td>
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<tr>
<td><em>POS Amer. Nat’l Govt.</em></td>
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<tr>
<th>THIRD YEAR</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall (17 hrs)</strong></td>
<td><strong>Spring (17 hrs)</strong></td>
</tr>
<tr>
<td>EEL 3122C-Electrical Networks</td>
<td>EEL 3307C-Electronics I</td>
</tr>
<tr>
<td>STA 3032 Statististics</td>
<td>EEL 3470-Electromagnetic Fields</td>
</tr>
<tr>
<td>EEL 3906-Semiconductor Devices I</td>
<td>EEL 3552C-Signals</td>
</tr>
<tr>
<td>EEL 4767C-Comp. Syst. Design I</td>
<td><em>Humanities Elective</em></td>
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</tbody>
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<table>
<thead>
<tr>
<th>FOURTH YEAR</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall (13 hrs)</strong></td>
<td><strong>Spring (11 hrs)</strong></td>
</tr>
<tr>
<td>EEL 4309C-Electronics II</td>
<td>EEL 4012C Senior Design</td>
</tr>
<tr>
<td>EEL 3657 Linear Control Systems</td>
<td>EEL recommended elective</td>
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<td>EEL recommended elective</td>
<td>EEL recommended elective</td>
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<td>EEL recommended elective</td>
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</tbody>
</table>

Notes:
1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program above.
5) Electrical Engineering students must earn at least 33 hours in residence at UCF.
Industrial Engineers design systems which translate a specific product design into a physical reality in the most productive manner and with highest possible quality. In doing so, the industrial engineer deals with decisions regarding the right mix and type of people, materials, machines and automation (including robotics). Industrial engineers are also skilled in Engineering Economic Analysis and Information Management since they are generally considered to be the natural interface between the technical specialist and management.

Industrial Engineers are generally sought in industry, service, and governmental organizations. In the industrial sector, the industrial engineer is concerned with improving productivity and quality of the manufacturing, distribution, and management system of organizations. In the service sector, the industrial engineer is concerned with determining the most productive manner in which to deliver high-quality service to the customer. In government organizations the industrial engineer is active in assuring that tax payers receive maximum service for their tax dollars.

The Industrial Engineering approach is characterized by a systematic evaluation of alternatives using quantitative analysis, and computer simulations. As such, quantification and measurement play a key role in the day to day activities of the industrial engineer.

**Tentative Course Schedule for Entering Freshmen**

**Industrial Engineering — 132 semester hours required**

**FIRST YEAR**

- **Fall (15 hrs)**
  - *MAC 3311-Calculus I*
  - *ENC 1101-English Comp*
  - *Humanities/History*
  - *EGS 1111C-Eng Comp Graphics*
  - *ECO 2013-Economics*

- **Spring (16 hrs)**
  - MAC 3312-Calculus II
  - ENC 1102-English Comp
  - EIN 2XXX-Intro to I.E.
  - CHS 1440-Chem for Engr (CHM 2045/2046)
  - EGN 3613-Engr Economics

- **Summer (10 hours)**
  - MAC 3313-Calculus III
  - SPC 1600-Oral Communication
  - Humanities/History

**SECOND YEAR**

- **Fall (15 hrs)**
  - MAP 3302-Differential Equations
  - EIN 4118-Intro to Comp. Appl.
  - PHY 3048-Physics Engr. I
  - EIN 3354-Intro to Cost Engr.
  - STA 3032-Statics

- **Spring (16 hrs)**
  - POS 2041-Amer Nat Govt
  - EGN 3310-Statics
  - PHY 3049-Physics Engr II w/Lab
  - EIN 3314-Work Measurement
  - EIN 4XXX-Empirical Methods

**THIRD YEAR**

- **Fall (16 hrs)**
  - EIN 4381-Manufacturing Engr.
  - EGN 3365-Materials
  - EGN 3373-Prin. of Elect. Engr.
  - EGN 3321-Dynamics
  - ESI 4234-Quality Engr.

- **Spring (14 hrs)**
  - ESI 4312-Operations Research
  - ESI 4523-Systems Simulation
  - Social Science elective
  - EGN 3358-Thermo-Fluids
  - EGN 3704-Engr. Environ
FOURTH YEAR

Fall (15 hrs)
EIN 4116-System Analysis
EIN 4333-Industrial Controls
Technical elective
*Humanities elective
EIN 4634-Industrial Facility Plan.

Spring (15 hrs)
Technical elective
EIN 4891-Seminar Design Project
EGN 4624-Engr Administration
*Earth Science

Notes:
1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses
4) Summer session required by law; see Transfer Program above
5) Industrial Engineering students must earn at least 33 hours in residence at UCF

DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

Chair: D. Nicholson, EN 381, Phone (407) 823-2416
Faculty: Anderson, J. Beck, Bishop, R. Byers, Chen, Chew, Desai, Eno, Gunnerson, Hagedoorn, Hosler, Kassab, K. Lin, Minardi, Mosleh, Nayfeh, Nuckolls, Rice, W. Smith, Ventre.
Joint Appointments: Chai, Debnath, Dhere, McBrayer, Nimmo, Richardson, Vajravelu

The Department of Mechanical and Aerospace Engineering offers undergraduate degree programs in Mechanical Engineering and Aerospace Engineering. Mechanical Engineering emphasizes design and addresses the science and technology of energy, machine, and manufacturing systems. Aerospace Engineering likewise emphasizes design, and addresses the science and technology of aeronautical and space systems. Both programs are crafted to provide a broadly based foundation for professional engineering careers and for lifelong learning. Individual courses within the programs challenge students to understand basic principles and their application, and to master advanced approaches in seeking solutions. Design, laboratory, and computer-based activities are pervasive. The capstone design and measurements courses incorporate major projects involving students in 'real world' problems. Students in the Mechanical Engineering program are expected to follow one of the three options illustrated below: Energy Systems, Mechanical Systems, and Materials.

Tentative Course Schedule for Entering Freshmen

Aerospace Engineering — 136 semester hours required

FIRST YEAR

Fall (16 hrs)
*ENC 1101-English Comp
*CHM 1440-Chem for Engr (CHM 2045/2046)
*MAC 3311-Calculus I
EGS 1111C-Engr Graphics
*ECO 2013-Economics

Spring (16 hrs)
*ENC 1102-English Comp
*MAC 3312-Calculus II
*PHY 3048-Physics Engr. I
*POS 2041-Amer. Nat. Govt.
*SPC 1600-Oral Communication

Summer (10 hours)
*MAC 3313-Calculus III
*Humanities/History
*Social Science

SECOND YEAR

Fall (16 hrs)
EGN 3420-Engr. Analysis
*MAP 3302-Differential Eqns.
*Humanities/History
*PHY 3049-Physics Engr II w/Lab
EGN 3310-Statics

Spring (16 hrs)
EGN 3373-Prin Electrical Engr.
EGN 3365-Struct Prop Materials
STA 3032-Prob/Statistics
*Earth Science
EGN 3321-Dynamics
<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 hrs</td>
<td>14 hrs</td>
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<td>14 hrs</td>
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<td></td>
<td>15 hrs</td>
<td>17 hrs</td>
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</table>

**THIRD YEAR**

<table>
<thead>
<tr>
<th>Fall (15 hrs)</th>
<th>Spring (14 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGN 3353-Fluid Mechanics</td>
<td>EAS 3101-Aerodynamics</td>
</tr>
<tr>
<td>EAS 3800-Junior Aero Lab I</td>
<td>EAS 4200-Flight Structures</td>
</tr>
<tr>
<td>EGN 3331-Mech Materials</td>
<td>EAS 3810-Junior Aero Lab II</td>
</tr>
<tr>
<td>EGN 3343-Thermodynamics</td>
<td>EAS 3520-Space Systems</td>
</tr>
<tr>
<td>EAS 3010-Fund of Flight</td>
<td>EML 4535-CAD/CAM</td>
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</tbody>
</table>

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>Fall (16 hrs)</th>
<th>Spring (17 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EML 4312-Feedback Control</td>
<td>EAS 4710 Aero Design II</td>
</tr>
<tr>
<td>EAS 4105-Flight Mechanics</td>
<td>PHY 3101-Physics Engr III</td>
</tr>
<tr>
<td>EAS 4700-Aero Design I</td>
<td>EAS 4300 Propulsion Systems</td>
</tr>
<tr>
<td>Humanities elective</td>
<td>Approved technical elective/s</td>
</tr>
<tr>
<td>EAS 4134-High Speed Aero</td>
<td>EGN 4624-Engineering Admin</td>
</tr>
</tbody>
</table>

**Notes:**
1. Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (that satisfies the General Education Program).
2. Students should consult their department for terms when courses are typically offered.
3. Students should consult with department for recommended electives or approved design courses.
4. Summer session required by law; see Transfer Program above.
5. Aerospace Engineering students must earn at least 34 hours in residence at UCF.

**Mechanical Engineering — 132 semester hours required**

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Fall (16 hrs)</th>
<th>Spring (16 hrs)</th>
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</thead>
<tbody>
<tr>
<td>*MAC 3311-Calculus I</td>
<td>*MAC 3312-Calculus II</td>
</tr>
<tr>
<td>*ENC 1101-English Comp</td>
<td>*ENC 1102-English Comp</td>
</tr>
<tr>
<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
<td>*PHY 3048-Physics Engr</td>
</tr>
<tr>
<td>EGS 1111C-Engr Comp Graphics</td>
<td>*POS 2041-Amer. Nat'l. Govt.</td>
</tr>
<tr>
<td>*ECO 2013-Economics</td>
<td>*SPC 1600-Oral Communication</td>
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</table>

Summer (10 hours)

| *MAC 3313-Calculus III |
| *Humanities/History |
| *Social Science |

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Fall (16 hrs)</th>
<th>Spring (15 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*MAP 3302-Differential Equations</td>
<td>EGN 3321-Dynamics</td>
</tr>
<tr>
<td>EGN 3310-Statics</td>
<td>EGN 3365C-Materials</td>
</tr>
<tr>
<td>*PHY 3049-Physics Engr II w/Lab</td>
<td>STA 3032-Statistics</td>
</tr>
<tr>
<td>*PHY 3049L-Physics Lab</td>
<td>EGN 3373-Prin Electrical Engr</td>
</tr>
<tr>
<td>EGN 3420-Engineering Analysis</td>
<td>*Earth Science</td>
</tr>
<tr>
<td>Humanities/History</td>
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</table>

**THIRD YEAR**

<table>
<thead>
<tr>
<th>Fall (15 hrs)</th>
<th>Spring (15 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 3101-Modern Physics</td>
<td>EML 4535-CAD-CAM</td>
</tr>
<tr>
<td>EGN 3331-Mechanics of Materials</td>
<td>EML 4220-Vibrations</td>
</tr>
<tr>
<td>EGN 3343-Thermodynamics</td>
<td>*Humanities elective</td>
</tr>
<tr>
<td>EGN 3353-Fluid Mechanics</td>
<td>EML 3500-Machine Design</td>
</tr>
<tr>
<td>EGN 4624-Heat Transfer</td>
<td>EML 4142-Heat Transfer</td>
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</table>
FOURTH YEAR

I. ENERGY SYSTEMS OPTION

<table>
<thead>
<tr>
<th>Fall (15 hrs)</th>
<th>Spring (13 hrs)</th>
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</thead>
<tbody>
<tr>
<td>EML 3101-M.E. Thermo</td>
<td>EML 4502C-Senior Design II</td>
</tr>
<tr>
<td>EML 4312-Feedback Controls</td>
<td>EML 4703C-Fluids II</td>
</tr>
<tr>
<td>EML 4304C-Measurements</td>
<td>Restricted technical elective</td>
</tr>
<tr>
<td>EML 4501C-Senior Design I</td>
<td>Restricted technical elective</td>
</tr>
<tr>
<td>Restricted technical electives</td>
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</tbody>
</table>

II. MECHANICAL SYSTEMS OPTION

<table>
<thead>
<tr>
<th>Fall (15 hrs)</th>
<th>Spring (13 hrs)</th>
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<tbody>
<tr>
<td>EML 3262-Kinematics</td>
<td>EML 4502C-Senior Design II</td>
</tr>
<tr>
<td>EML 4312-Feedback Controls</td>
<td>EML 4703C-Fluids II</td>
</tr>
<tr>
<td>EML 4304C-Measurements</td>
<td>Restricted technical elective</td>
</tr>
<tr>
<td>EML 4501C-Senior Design I</td>
<td>Restricted technical elective</td>
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<tr>
<td>Restricted technical elective</td>
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</tr>
</tbody>
</table>

III. MATERIALS OPTIONS

<table>
<thead>
<tr>
<th>Fall (15 hrs)</th>
<th>Spring (13 hrs)</th>
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</thead>
<tbody>
<tr>
<td>EML 3101-M.E. Thermo</td>
<td>EML 4502C-Senior Design II</td>
</tr>
<tr>
<td>EML 4312-Feedback Controls</td>
<td>EML 4703C-Fluids II</td>
</tr>
<tr>
<td>EML 4304C-Measurements</td>
<td>EML 3234-Mech Beh Mats</td>
</tr>
<tr>
<td>EMA 4501C-Senior Design I</td>
<td>Restricted technical elective</td>
</tr>
<tr>
<td>EMA 3012L-Exp Meth Mats</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program above.
5) Mechanical Engineering students must earn at least 33 hours in residence at UCF.

DEPARTMENT OF ENGINEERING TECHNOLOGY

Chair: J. McBrayer, EN 307, Phone (407) 823-2268
Faculty: Buchanan, W. Byers, Coowar, Denning, J. Dixon, Osborne, Staub, Strange, Vazquez, Worbs

Engineering Technology is the profession in which a knowledge of the applied mathematical and natural sciences gained by higher education, experience, and practice is devoted to application of engineering principles and the implementation of technological advances for the benefit of humanity. Engineering Technology education at UCF is broad in nature, focusing primarily on analyzing, applying, implementing and improving existing technologies. This education enhances the graduate's potential for accepting a wide variety of professional opportunities, for lifelong learning, and for future career advancement.

Two baccalaureate degree programs are offered in engineering technology. They are the:
- Bachelor of Science in Electrical Engineering Technology (BSEET)
- Bachelor of Science in Engineering Technology (BSET)

The bachelor of science degree programs in Electrical Engineering Technology and in Engineering Technology are aimed at preparing graduates for the practice of engineering closest to the product improvement, manufacturing, and engineering operational functions. Students entering either of the curricula in Engineering Technology should be aware that some lower level technical courses may not currently be available at UCF and that the student may need to take a limited number of courses at a community college. Students who wish to be admitted directly into the upper level engineering technology concentration should possess either the A.A. degree, with appropriate technical courses, or an A.S. (or equivalent education) degree from a Florida public college or an approved out-of-state insti-
tution in an appropriate engineering technology area. Prospective transfer students not holding the A.A./A.S. degree from a Florida public college are encouraged to apply. They will be considered on an individual basis and should consult the “Transfer Applicants” portion of the Undergraduate Catalog for additional information.

Requirements
Completion of UCF’s General Education is required before the BSEET/BSET degree is granted. If a student completes the General Education Program of a Florida public community college, it will substitute for UCF’s Lower Division General Education Program without a course-by-course match. Students should consult an advisor for specific course requirements. All Engineering Technology students must earn at least 32 hours in residence at the University.

Bachelor of Science in Electrical Engineering Technology (BSEET) and Bachelor of Science in Engineering Technology (BSET)

Degree Requirements 128 hours
A. General Education 27 hours
(Not including Mathematics, Science and Computer Programming)

Communications 9 minimum
ENC 1101/1102 English Composition I/II
SPC 1600 Fundamentals of Oral Communications

Cultural and Historical 9 minimum
EUH 2000/2001 Western Civilization I/II OR
HUM 2211/2230 Western Humanities I/II OR
AMH 2010/2020 U.S. History I/II AND
Approved Elective 3 hours

Social Foundations 9 minimum
ECO 2013 Principles of Economics I
POS 2041 American National Government AND
PSY 2013 General Psychology OR
SYG 2000 General Psychology OR
ANT 2003 General Anthropology OR

B. Engineering Technology Core 41 hours
(A minimum of 24 hours of Mathematics and Science is required)

Mathematics 12 minimum
MAC 1104 College Algebra
MAC 1114 College Trigonometry AND
MAC 3253/3254 Applied Calculus I/II OR
MAC x311/x312 Calculus with Analytic Geometry I/II

Science 11 minimum
PHY x048C/x049C Physics for Engineers & Scientists I/II OR
PHY X053C/X054C College Physics I/II AND
BSC 1020C Biological Principles OR
BSC 1030C Biology and Environment OR
GLY 1030 Geology and its Applications OR
GEO 1200 Physical Geology OR
GEO 3370 Resources Geography OR
BOT 1000C Plant Science OR
ANT 3511 Human Species OR

Other 18 hours
ENC x241 Technical Report Writing
ETG 3541 Applied Mechanics
ETI 3651C Computer Applications
ETI 3671 Technical Economic Analysis
ETI 4110 Industrial Quality Control
ETI 4635 Technology Administration
Bachelor of Science in Electrical Engineering Technology (BSEET)
Program Coordinator: William S. Byers, P.E.

This program in electrical engineering technology, leading to the BSEET degree, provides a structured curriculum with instruction in fundamentals and engineering principles applicable toward working with both present and future technologies in a variety of work environments. Graduates may find employment opportunities in such diverse fields as aerospace, instrumentation, computers, communications, consumer products, banking and education. They may become involved in applied design, product development, manufacturing, quality assurance, production and operations as well as activities such as field engineering, sales, system analysis, technical writing and software design, preparation and programming.

The EET program provides two paths of concentration, thereby providing the student a choice between either a hardware or a software emphasis. The concentration in Electrical systems provides a broad based curriculum in electrical/electronic engineering principles, and their application. Instruction and problem solving experiences are provided in both circuit and system aspects including computers, communications, controls and electrical power. The concentration in Information Systems, while providing a firm foundation in electrical/electronics principles, also includes extensive instruction in programming, system design and analysis, and systems programming. Projects in cooperation with local industry, solving real-world problems are required of all students in this concentration.

Electrical Systems

C. Required Lower Division Technical Courses
(ideally scheduled during the freshman and sophomore year)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Minimum Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 1xxxC /1yyyC</td>
<td>DC Circuits/AC Circuits with Lab</td>
<td>6 hours</td>
</tr>
<tr>
<td>EET 1xxxC /2xxxC</td>
<td>Electronic Devices and Circuits I/II with Lab</td>
<td>8 hours</td>
</tr>
<tr>
<td>CET 1xxxC</td>
<td>Digital Fundamentals with Lab</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET x123C</td>
<td>Microprocessor Electronics with Lab</td>
<td>3 hours</td>
</tr>
<tr>
<td>COP 1xxx</td>
<td>Approved Computer Programming</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Approved Technical Elective</td>
<td>2 hours</td>
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</tbody>
</table>

D. Upper Division Specialty Courses
(to be taken in the junior and senior years — prerequisites from groups B. and C.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>EET 3716C</td>
<td>Network Analysis</td>
</tr>
<tr>
<td>CET 3198C</td>
<td>Digital Systems</td>
</tr>
<tr>
<td>CET 3303</td>
<td>Microcomputer Technology I</td>
</tr>
<tr>
<td>CET 3144C</td>
<td>Applied Microprocessor Technology</td>
</tr>
<tr>
<td>CET 4333C</td>
<td>Applied Computer Systems I</td>
</tr>
<tr>
<td>EET 4158C</td>
<td>Linear Integrated Circuits</td>
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<tr>
<td>EET 4329C</td>
<td>Communications Systems</td>
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<td>EET 4548</td>
<td>Power Systems</td>
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<tr>
<td>EET 4732</td>
<td>Feedback Control Systems AND</td>
</tr>
<tr>
<td>CET 3364</td>
<td>System Applications in C OR</td>
</tr>
<tr>
<td>CET 4334C</td>
<td>Applied Computer Systems II OR</td>
</tr>
<tr>
<td>EET 4339C</td>
<td>Antennas and Propagation OR</td>
</tr>
<tr>
<td>EET 4915</td>
<td>Senior Design Project OR</td>
</tr>
<tr>
<td>ETI 4186</td>
<td>Applied Reliability OR</td>
</tr>
<tr>
<td>ETI 4205</td>
<td>Applied Logistics</td>
</tr>
</tbody>
</table>

Information Systems

C. Required Lower Division Technical Courses
(ideally scheduled during the freshman and sophomore year)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Minimum Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 1xxxC /1yyyC</td>
<td>DC Circuits/AC Circuits with Lab OR</td>
<td>6 hours</td>
</tr>
<tr>
<td>EET X035C</td>
<td>Electricity/Electronics AND</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET x123C</td>
<td>Microprocessor Electronics with Lab</td>
<td>3 hours</td>
</tr>
<tr>
<td>COP xxx0</td>
<td>Pascal Programming</td>
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<tr>
<td>COP xxx1</td>
<td>Pascal Programming — Advanced</td>
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<tr>
<td>COP xxx0</td>
<td>Cobol Programming</td>
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</tr>
<tr>
<td>COP xxx1</td>
<td>Cobol Programming — Advanced</td>
<td></td>
</tr>
</tbody>
</table>
Bachelor of Science in Engineering Technology (BSET)

Program Coordinator: Richard G. Denning, P.E.

The BSET curriculum consists of a carefully integrated program which includes professional studies, liberal education, and applied mathematics and sciences. Through the selection of the upper level technical concentration students can build and tailor their program, based on previous knowledge to assist them to launch a career that best meets their needs and aspirations. The Design concentration provides advanced course work in preparation for employment at the baccalaureate level in the fields of manufacturing, testing and fabrication of mechanical parts, and the building and construction industries. Graduates may become involved in applied design, product development, manufacturing or production, to name but a few. The operations concentration provides an orientation for professional careers in technical management and operations in the manufacturing, sales, services, and construction industries. Graduates may become involved in many diverse areas including product development, manufacturing, quality assurance and logistics, sales, field engineering, technical writing and safety.

Projects in cooperation with local industry, solving real-world problems, are required of all students in the BSET program. In addition to the engineering technology core, both concentrations in the BSET program have a common lower division core as well as a common upper division core.

C. Required Lower Division Technical Courses

(ideally scheduled during the freshman and sophomore year) minimum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET x035C</td>
<td>Electricity/Electronics</td>
<td>4</td>
</tr>
<tr>
<td>CET x123C</td>
<td>Microprocessor Electronics with Lab</td>
<td>3</td>
</tr>
<tr>
<td>COP xxxx</td>
<td>Approved Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CHM xxxxC</td>
<td>General Chemistry and Laboratory</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Approved Technical Elective</td>
<td>3</td>
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<tr>
<td></td>
<td>Approved Technical Elective</td>
<td>3</td>
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<td></td>
<td>Approved Technical Elective</td>
<td>2</td>
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<tr>
<td></td>
<td>Approved Technical Elective</td>
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</table>

D. Upper Division Required Courses

(to be taken in the junior and senior years — prerequisites from groups B. and C.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 4502C</td>
<td>Metrology and Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>ETD 3350C</td>
<td>Applied CADD</td>
<td>3</td>
</tr>
<tr>
<td>ETG 4530C</td>
<td>Strength of Materials</td>
<td>4</td>
</tr>
</tbody>
</table>
ETG 4950C  Senior Design Project AND  3 hours  
ETM 4220  Applied Energy Systems OR  4 hours  
ETM 4232C  Applied Heat Transfer OR  4 hours  
ETM 4331C  Applied Fluid Mechanics  4 hours  

Design  
E. Upper Division Specialty Courses — select any five courses  15 hours  
(to be taken in the junior and senior years — prerequisites from groups B., C. and D.)  
ETC 4241C  Construction Materials and Methods  3 hours  
ETC 4242  Construction Contracts and Specifications  3 hours  
ETC 4414C  Applied Structural Design I  3 hours  
ETC 4415C  Applied Structural Design II  3 hours  
ETI 3421  Materials and Processes  3 hours  
ETM 4512C  Applied Design of Machine Elements  3 hours  

Operations  
E. Upper Division Specialty Courses — select any five courses  15 hours  
(to be taken in the junior and senior years — prerequisites from groups B., C. and D.)  
ETI 3421  Materials and Processes  3 hours  
ETI 3960  Technical Sales  3 hours  
ETI 4186  Applied Reliability  3 hours  
ETI 4205  Applied Logistics  3 hours  
ETI 4640  Process Planning and Work Measurement  3 hours  
ETI 4661C  Applied Facilities Planning and Design  3 hours  
ETI 4700  Occupational Safety  3 hours  

AIR FORCE ROTC (Aerospace Studies)  
Chair: D. H. Haylett, BIO 306, Phone (407) 823-1247  
Faculty: Haylett, Hernandez, Inzarry, Mack, Morant  

The Department of Aerospace Studies provides pre-commissioning education for qualified students who desire to serve as commissioned officers in the active duty Air Force. The department offers both the four-year and two-year Air Force ROTC programs. The four-year program provides on-campus study during the freshman through senior years. The two year programs allow community college transfer students and other students with two academic years remaining in either undergraduate or graduate status to earn an Air Force commission while completing their studies. Both programs offer scholarships for selected students. Students are invited to write or visit the Department of Aerospace Studies to obtain additional information.  

CURRICULUM  
Students enrolled in the Air Force ROTC program may major in any academic discipline and earn a minor in Aerospace Studies. A major is not offered by this department. An Aerospace Engineering Degree is offered under the College of Engineering. AFROTC courses are listed under the prefix AFR. The curriculum is divided into two phases:  
1. General Military Course (GMC)  
The General Military Course of the freshman and sophomore courses for students in the four-year AFROTC program. These courses deal with the mission, organization, and structure of the U.S. Air Force, and the development of air power into a prime element of American national security.  
2. Professional Officer Course (POC)  
The Professional Officer Course consists of Aerospace Studies offered during the junior and senior years. All students who seek a commission through the Air Force ROTC must complete the POC curriculum. The curriculum involves the study of concepts of leadership and management in the Air Force and an analysis of the formulation and implementation of American defense policy.
LEADERSHIP LABORATORY
Leadership Laboratory is open to students who are members of the Reserve Officer Training Corps or are eligible to pursue a commission as determined by the Professor of Aerospace Studies.

REQUISITE FOR ADMISSION TO THE PROFESSIONAL OFFICER COURSES (POC)
1. Be at least 17 years of age at the time of acceptance.
2. Be able to complete the Professional Officer Course and complete all degree requirements prior to reaching age 26½ if entering Flight Training, or before age 30 if entering a non-flying Air Force specialty.
3. Pass the Air Force Officer Qualifying Test.
5. Complete the application and examination process, preferably prior to January 14 of the year in which they plan to enroll.
6. Selection by the Professor of Aerospace Studies and acceptance by the University.
7. Successful completion of a summer Field Training course.
8. Enlistment in the Air Force Reserve certifying agreement to complete the POC and accept an Air Force Commission. This enlistment is terminated upon receipt of a commission.

MONETARY ALLOWANCE
All students enrolled in the Professional Officer Course receive a tax-free monetary allowance of $100 per month.

AIR FORCE ROTC SCHOLARSHIP PROGRAM
Scholarships are phased at 4, 3, and 2-year intervals. This system provides opportunities to those enrolled in both the four-year and two-year programs. These scholarships provide for full tuition, and an allowance for fees and textbooks. Scholarship recipients also receive the $100 monthly tax-free monetary allowance. A POC Incentive scholarship is available to eligible cadets enrolled in the last two years of our program regardless of major.

SUMMER TRAINING
All students must attend a summer Field Training course conducted at an Air Force base. This course includes junior officer training, officer career orientation, and physical conditioning. Students enrolled in the four-year AFROTC program will attend a four-week summer course, normally upon completion of the General Military Course, and they will receive approximately $550. A six-week summer course, which includes a modified version of the General Military Course, is required for students entering the two-year AFROTC program. These students must complete their summer training prior to their formal enrollment in the Professional Officer Course. Students who complete the six-week course receive approximately $800.

OFFICER COMMISSIONS
Students who complete the Professional Officer Course are appointed Second Lieutenants in the United States Air Force Reserve. After completing the training program and entering active duty as reserve officers, they will serve a minimum active duty tour which varies in length depending on their particular career area. Such obligations are explained in detail during the one-on-one counseling sessions conducted with each prospect by detachment officers. During their period of active service, new officers are given the opportunity to attain career status and to obtain a regular commission in the United States Air Force.

MINOR
The Department of Aerospace Studies offers a minor consisting of a minimum of 16 semester hours. Required courses: AFR 1101, 1111, 2130, 2131, 3220, 3230, 4201, 4210.
ARMY ROTC-MILITARY SCIENCE

Chair: John T. Sanders, Trailer 522, 525, 527, Phone (407) 823-2430
Faculty: Amador, Bryant, DeLeon, Harris, Killian, Morales, Reynolds

The University of Central Florida, in cooperation with the U.S. Army, provides an opportunity to earn a commission as a lieutenant and compete for an active duty assignment or accept a guaranteed Army Reserve or National Guard position. The program offers both a four-year and two-year option for students working on their Associate of Arts, Baccalaureate or Graduate degrees. The two-year option allows students with at least two academic years remaining in either undergraduate or graduate studies to meet all requirements for commissioning. Students may be eligible for the Army's new Simultaneous Membership Program (SMP), which combines Reserve Forces duty with Army ROTC officer training courses on campus. Students earn about $2,700 in their last two years.

CURRICULUM
The Military Science curriculum is divided into three phases:

1. Basic Military Science
   The Basic Military Science courses, open to both men and women, are designed for four-year participants and are normally offered during the freshman and sophomore years. These courses address military organization, equipment, weapons, map reading, land navigation, management skills, grade structure, communications, and leadership. There are no contractual obligations for students in the basic course and no commitments. It's an opportunity to see what Army ROTC is all about. (MIS 1031, 1400, 2120, and 2300)

2. Advanced Military Science
   The Advanced Military Science courses are normally taken during the junior and senior years. These courses specialize in small unit tactics, how to prepare and conduct military training, military justice system, staff procedures, decision making, and leadership. Students who desire a commission as a second lieutenant are contracted and paid a subsistence allowance of $100.00 a month up to ten months during the school year. Each student is required to take courses that meet the Professional Military Educational Requirements. These requirements require taking at least one course in each of the following areas: Written Communication Skills, Human Behavior, Military History (AMH 3540) Computer Literacy, and Math Reasoning (MIS 3301, 3410, 4421, and 4430).

3. Summer Camp
   Prior to commissioning, each cadet must successfully complete an evaluation of skills learned. This evaluation is conducted at Ft. Bragg, North Carolina, during June and July. Summer Camp requirements apply only to Advanced Military Science students. Students attending the advanced camp receive approximately $700.00.

4. A student can earn placement credit for the Basic Course classes and allowed entry into the Advanced Courses if he/she attended Basic and Advanced Individual Training or attends ROTC Basic Camp at Ft. Knox, Kentucky.

5. Daytona Beach Campus students contact the Professor of Military Science at Embry Riddle Aeronautical University, Daytona Beach, FL, (904) 239-6469.

SUMMER TRAINING
1. A summer training program is offered for students who are to be academic juniors without previous ROTC or military training. A student can earn placement credit for the Basic Course classes and allowed entry into the Advanced Courses by attending a six-week course at Fort Knox, Kentucky, thereby allowing completion of all requirements for commissioning within two years. Students attending the summer course at Fort Knox will receive approximately $700 pay for the period. Additionally, all lodging, meals, transportation, and uniforms will be provided at no expense.

2. Qualified students can be selected to attend specialized military training during the summer months. Some of the areas of training are:
MINOR
The Department of Military Science offers a minor consisting of a minimum of 19 semester hours. Required courses: MIS 3301, 3410, 4421, 4430 and AMH 3540.

MONETARY ALLOWANCE
All students enrolled in the Advanced Military Science Course receive a tax free monetary allowance of $100 per month for the school year.

SCHOLARSHIPS
Four-, three-, and two-year scholarships are available for all students who qualify. These scholarships provide full tuition, and fees. Additionally, scholarship recipients receive $100 (tax free) per month and a $225 book stipend for the Fall & Spring semesters. Scholarship applications are processed in the December-February time frame.

REQUISITES FOR ADMISSION TO THE BASIC COURSE
1. Enrollment in a Baccalaureate or Masters degree program.
2. Full-time student status.

REQUISITES FOR ADMISSION TO THE ADVANCED COURSE
1. Successful completion of Basic Course, Basic Camp, JROTC, prior military service, or permission of Department Chair.
2. 17 years of age at the time of entry but not more than 30 years of age at the time of commissioning. Waiverable for veterans up to age 34.
3. Successful completion of an Army physical examination.
4. Agreement to complete the Advanced Course requirements and serve on active, reserve, or national guard duty as a commissioned officer.
5. Full-time student status.

MINOR: SPACE STUDIES
Contact Person: E.R. Hosler; ENGR 381, Phone (407) 823-2416

In response to the needs of the Central Florida space community, UCF offers a multidisciplinary Minor in Space Studies. It is intended for students of all disciplines and includes courses from aerospace engineering, electrical engineering, environmental engineering, instructional programs, physics, physical education, and political science. Program requirements include a grade point average of at least 2.00 and a minimum of 21 credit hours, including three required courses and four elective courses.

Required courses:
- AST 2002 Astronomy
- GEO 4140 Remote Sensing of the Environment
- PUP 3508 Introduction to Space Studies

Elective courses:
- EAS 3010 Fundamentals of Flight
- EAS 3101 Aerodynamics I
- EAS 3530 Space Systems
- EAS 4505 Orbital Mechanics
- EGN 4830 Telecommunications
- GEO 1200 Physical Geography
- GEO 3370 Resources Geography
- GEO 4141 Geographic Information Systems
- INR 4404 Space Law
- PET 4351 Applied Exercise and Human Physiology
- PUP 4510 Space Policy
- SCE 5825 Space Science for Educators

Completion of the Minor in Space Studies may involve course work in addition to the minimum requirements of some major programs. Students should consult with their academic advisors to confirm that all of the departmental and college degree requirements for their majors are being met.
Formal enrollment should occur before nine credit hours have been completed. To obtain information and to enroll in the Minor, students should contact Dr. E. R. Hosler, Associate Chair, Department of Mechanical and Aerospace Engineering, Engr 381, (407) 823-2416.

MINOR: TECHNOLOGY AND SOCIETY

Contact Persons: Richard N. Miller, ENGR 281, Phone (407) 823-2455
J. Paul Hartman, ENGR 207, Phone (407) 823-2317.

The College of Engineering offers a minor in Technology and Society to interested UCF students. The minor is intended for students not enrolled in the College of Engineering, although students in the College may also be awarded the minor. To meet the requirements, the student must complete, with a grade point average of 2.0 or higher, a minimum of 18 hours taken from the courses listed. A minimum of 9 hours must be taken from the EGN prefix courses listed below. Students should preferably complete the following general education program coursework prior to taking this minor: ECO 2013, MAC 1104; History or Humanities sequence.

The 18 hours are to be selected from:

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<td>Computers, Cybernetics and Society</td>
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<td>Survey of Technical and Scientific Literature</td>
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<td>PUP 4503</td>
<td>Government and Science</td>
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<tr>
<td>PUP 4510</td>
<td>Space Policy</td>
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COLLEGE OF HEALTH AND PUBLIC AFFAIRS

UNDERGRADUATE PROGRAMS
- Cardiopulmonary Sciences (BS)
- Communicative Disorders (BA/BS)
- Criminal Justice (BA)
- Health Information Management (BS)
- Health Services Administration (BS)
- Legal Studies (BA)
- Medical Laboratory Sciences (BS)
- Molecular Biology and Microbiology (BS)
- Nursing (BSN)
- Public Administration (BA)
- Physical Therapy (BS)
- Radiologic Sciences (BS)
- Social Work (BSW)

PRE-HEALTH PROFESSIONAL PROGRAMS
- Prechiropractic
- Predental
- Premedical
- Preoptometry
- Prepharmacy
- Prepodiatry
- Preveterinary

GRADUATE PROGRAMS*
- Communicative Disorders (MA)
- Health Sciences (MS)
- Molecular Biology and Microbiology (MS)
- Public Administration (MPA)
- Social Work (MSW)

OTHER PROGRAMS
- Gerontology Certification Program

*See the Graduate Catalog.
COLLEGE OF HEALTH AND PUBLIC AFFAIRS

Dean: Belinda R. McCarthy, HP 214, Phone (407) 823-2352
Associate Dean: Richard E. Talbott, HP 214
Associate Dean: Jean C. Kijek, HP 219

The College of Health and Public Affairs is composed of eight departments. The health related disciplines include: Communicative Disorders, Health Sciences, Molecular Biology and Microbiology, and Nursing. The Criminal Justice, Legal Studies, Public Administration and Social Work programs comprise the public affairs unit of the college.

As a college, we are responsible for educating professionals in health, human and public service. As an integral part of the Central Florida community, we have as our mission the advancement of knowledge, education, public policy and professional practice in health and public affairs.

ADVISEMENT
Advisement Coordinator: Ms. Debbie Phillis, HP 215, Phone (407) 823-0010

The College of Health and Public Affairs Advisement Office assists students in understanding matters relating to college and university requirements and procedures. Orientation and registration are coordinated through the advisement office. Questions concerning university and college academic policies should be directed through this office.

Pre-Health Professions Advisement:
See Pre-Health Professions Advisement Office

Program Planning
Students should plan their academic programs of study in consultation with a faculty advisor appointed by the chair of the major department.

General Requirements for the Bachelors Degree
Some Departments or Programs in the College are upper-division, limited access programs. Acceptance by or registration at the University does not constitute admission to the following: Departments of Nursing, Physical Therapy, Social Work, and the Programs in Cardiopulmonary Sciences, Medical Laboratory Sciences, Health Information Management, and Radiologic Sciences. Application must be made to the appropriate program in health sciences. For nursing or physical therapy, contact Admissions Services, for Social Work, contact the Social Work department. Additional information regarding prerequisites and grade point averages may be obtained from the desired Program or Department.

The following Departments and Programs do not have limited access: Departments of Communicative Disorders, Criminal Justice/Legal Studies, Molecular Biology/Microbiology, and Public Administration; and the Program in Health Service Administration.

DEPARTMENT OF COMMUNICATIVE DISORDERS
Interim Chair: T. A. Mullin, HP 113, Phone (407) 823-2121
Faculty: Hedrick, Ingram, Mullin, Parker, Ratusnik, Talbott, Utt

The primary goal of the Department of Communicative Disorders is the preparation of clinical specialists in Speech/Language Pathology and Audiology. Undergraduate offerings are consistent with philosophies of the American Speech-Language-Hearing Association in that most coursework is designed to provide the student theoretical foundations on which to build competent clinical skills. An on-campus clinic as well as external affiliations including area public schools, community speech and hearing centers, hospital clinics, physicians' offices and industrial settings are available for the development of various clinical competencies. Faculty are engaged in generation and transmission of knowledge concerning speech language-hearing processes and impairments via ongoing research projects. The professional phase of the program in speech/language pathology and audiology is accredited by the Educational Standards Board of the American Speech-Language Hearing Association.
In addition to coursework for majors, the Department offers a 4-course sequence in Sign Language: SPA 3333, SPA 4380, SPA 4381, SPA 4382.

MINOR
The Department of Communicative Disorders offers a minor consisting of a minimum of 22 semester hours.
Required courses: LIN 4710, 4710L; SPA 3002, 3101, 3112, 3112L, 4032, 4251, 4251L, 4402, and 4402L.

Licensed Speech Language and Audiology Assistant:
This new state license may be obtained by completing our minor plus one additional course as recommended by the academic advisor.

Bachelor of Arts or Bachelor of Science:
Communicative Disorders

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses
   LIN 4710 Foundations of Language 3 hours
   LIN 4710L Foundations of Language lab 1 hour
   SPA 3002 Introduction to Communicative Disorders 3 hours
   SPA 3050 Clinical Observation & Practice 3 hours
   (Taken Fall & Spring of Senior year)
   SPA 3101 Physiological Bases of Speech and Hearing 3 hours
   SPA 3112 Basic Phonetics 3 hours
   SPA 3112L Basic Phonetics Lab 1 hour
   SPA 3550 Clinical Methods 3 hours
   SPA 3550L Clinical Methods Lab 1 hour
   SPA 4011 Speech and Hearing Science 3 hours
   SPA 4032 Audiology I 3 hours
   SPA 4130 Augmentative Communication Systems 3 hours
   SPA 4201 Communicative Disorders-Articulation 3 hours
   SPA 4201L Communicative Disorders-Articulation Lab 1 hour
   SPA 4251 Organic Speech Disorders 3 hours
   SPA 4251L Organic Speech Disorders Lab 1 hour
   SPA 4310 Audiology II 3 hours
   SPA 4321 Aural Habilitation-Rehabilitation 4 hours
   SPA 4402 Communicative Disorders-Language 3 hours
   SPA 4402L Communicative Disorders-Language Lab 3 hours
   SPA 4554 Therapeutic Communications 3 hours
4. Statistics Requirement
   STA 3023 Statistical Methods I 3 hours
   STA 4163 Statistical Methods II 3 hours
5. Restricted Elective
   A course at the 3000 or 4000 level related to the Major (e.g., education, psychology, sociology, computer, etc.) selected in consultation with the academic advisor. 3 hours
6. Other Electives
   Students who wish to obtain a Teacher’s Certificate for the State of Florida must include the necessary course work as electives. See your academic advisor.
7. B.A./B.S. Option. Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one year while students pursuing the B.S. degree must complete six credit hours of health science courses approved by the Department.
8. Students must achieve a grade of C in required courses in the Department.
DEPARTMENT OF CRIMINAL JUSTICE AND LEGAL STUDIES

Chair: B.J. McCarthy, PH 116, Phone (407) 823-2603
Faculty: Bast, Becker, Cook, Griset, Hall, Hanson, Lanier, Lucken, Mahan, B.J. McCarthy, B.R. McCarthy, Mozee, Pyle, Sanborn, Slaughter

The Department of Criminal Justice and Legal Studies includes two undergraduate degree programs: Legal Studies and Criminal Justice.

Criminal Justice Program
Criminal Justice is a problem based field of study which focuses on the problems of crime and crime control agencies in a democratic society. The curriculum reflects the dynamic nature of the field and prepares students for challenging careers in public service.

Criminal Justice Minor
The Criminal Justice Minor consists of 18 or more semester hours. Required Courses: CCJ 3020, CCJ 3010; two of the following: CCJ 3300, CCJ 3290, CCJ 4105; plus a minimum of 6 semester hours of criminal justice courses selected with the aid of an advisor.

Legal Studies Program
The Legal Studies Program provides students with a broad understanding of basic principles of law and the role and function of the legal system. Two emphases are provided: legal-applied and legal-general. The applied emphasis prepares students for professional positions in law offices, public agencies, and business organizations. The general law emphasis program is designed to provide a general background in American society and government as well as American law. This emphasis, in addition to preparing students for law-related careers, provides a foundation for further professional or graduate education. Satisfactory completion of program requirements in either emphasis leads to the degree of Bachelor of Arts with a major in Legal Studies.

Legal Studies Minor
The Legal Studies Minor consists of 18 or more semester hours. Required courses: PLA 3013 plus a minimum of 12 semester hours of legal studies courses and 3 semester hours of law-related courses selected with the aid of an advisor.

Bachelor of Arts: Criminal Justice

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (18 semester hours)
   - CCJ 3020 Criminal Justice System 3 hours
   - CCJ 3010 Crime in America 3 hours
   - CCJ 3290 Prosecution and Adjudication 3 hours
   - CCJ 3300 Corrections and Penology 3 hours
   - CCJ 4105 Police and Society 3 hours
   - CCJ 4701 Research Methods in Criminal Justice 3 hours
4. Restricted Electives
   a. 21 additional semester hours of upper division CCJ coursework. Seniors can satisfy up to 9 hours of this requirement with internship and up to 6 hours with directed independent study; however, the combination of these non-class options shall not exceed 12 hours. Program standards must be met to be eligible for either internships or independent study credit.
   b. 15 additional semester hours of supporting courses to be selected with and approved by the student's advisor. These courses may vary from student to student depending upon individual needs or objectives, but include selected courses from public administration, legal studies, sociology, statistics, and psychology.
5. Students must take a minimum of 30 hours from the department to obtain the UCF degree in Criminal Justice.
6. Electives

Total Semester Hours Required 120

205
Bachelor of Arts: Legal Studies

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (15 hours)
   PLA 3013  Law and the Legal System  3 hours
   PLA 3105  Legal Research  3 hours
   PLA 3155  Legal Writing  3 hours
   PLA 3203  Civil Practice and Procedure  3 hours
   PLA 3504  Property and Real Estate Law  3 hours
4. Restricted Electives
   a. 18 additional hours of Legal Studies coursework. (see applied and general emphases below)
   b. 12 semester hours of supporting courses chosen with the approval of the student's advisor. These courses may be selected from any department or program so long as they are relevant to legal studies.
5. Students must take a minimum of 30 hours of the 45 hours of program requirements at UCF; and 27 hours of PLA courses must be taken at UCF.
6. Electives

Total Semester Hours Required 120

Applied Emphasis
Students are strongly urged to take the following courses as restricted electives:
   PLA 3273  The Law of Torts
   PLA 4408  The Law of Contracts
   PLA 4433  Florida Partnerships and Corporations
   PLA 4603  Estates and Trusts
   PLA 4941  Internship

General Emphasis
Students are strongly urged to select their restricted electives from the following list:
   PLA 3273  The Law of Torts
   PLA 3308  Criminal Procedure
   PLA 4020  Law and Society
   PLA 4408  The Law of Contracts
   PLA 4483  Administrative Law
   PLA 4700  Professional Ethics and Liability
   PLA 5937  Seminar in Contemporary Legal Problems

Supporting courses in the general emphasis are to be selected in consultation with the student's advisor but may include courses selected from the following areas: Political Science, Criminal Justice, Sociology, Psychology, History, Public Administration, and Philosophy.

DEPARTMENT OF HEALTH SCIENCES
Chair: M. J. Sweeney, (407) 823-2972
Faculty: Acieno, Barr, Bergner, Crittenden, Douglass, Drumheller, Edwards, Lytle, Mendenhall, Welker, Worrell, Youmans

The Department of Health Sciences offers a diversity of baccalaureate programs which prepare students for professions in the fields of Cardiopulmonary Sciences, Health Services Administration, Health Information Management, and Radiologic Sciences. In addition, the Department offers a graduate program in Health Sciences.

The mission of the Department is to provide quality undergraduate and graduate academic and clinical instruction with an accent on educating future leaders of the health care system. The Department seeks first to strengthen existing programs, as well as to identify and develop new programs which fulfill documented need for health care resources and technology. Another goal is to foster the development of knowledge through research, publications, scientific presentations, and grantsmanship. Finally, the Department seeks to provide continuing education for the health care community and consumer health education.
The Department of Health Sciences requires a minimum overall GPA of 2.5 for admission to and graduation from its Limited Access programs. In addition, a minimum grade of "C" is required for prerequisite courses and required courses within the major.

MINOR

The Department of Health Sciences offers a minor consisting of a minimum of 18 semester hours. In order to be awarded a minor in Health Sciences, a student must complete the required coursework and maintain at least a 2.5 GPA and a minimum of "C" on all Health Sciences course work.

Required Courses: HSA 3122, HUN 3011, HSC 3110 and a minimum of 9 hours of upper-division courses in the Health Science Department. Majors may not count courses presently required in a department program.

Program In Cardiopulmonary Sciences

Director: O.J. Drumheller, HPB 350, Phone (407) 823-2214

The Cardiopulmonary Sciences curriculum leads to the Bachelor of Science Degree in Cardiopulmonary Sciences and includes preparation for becoming a Registered Respiratory Therapist, and for licensure in the state of Florida.

The Cardiopulmonary Sciences program is a limited access program requiring a separate application. Acceptance to the university does not necessarily constitute admission to the upper division program. Separate application must be made directly to the program prior to February 1 of the year admission is sought. Contact the program for advisement and information.

Students must be accepted by the university and meet all requirements for admission to the upper division. A 2.5 overall GPA is required for admission to and graduation from the program. Students must meet all university undergraduate degree, special college and/or departmental requirements, as well as program requirements, in order to graduate. Students are required to have completed a Basic Life Support Certification (CPR) program prior to admission.

Bachelor of Science: Cardiopulmonary Sciences

Degree Requirements

1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 34 hours
3. See special college and/or department requirements
4. Prerequisites
   STA 3023 Statistics 3 hours
   MAC 1104 College Algebra 3 hours
   BSC 2010C General Biology 4 hours
   MCB 3013C Microbiology 5 hours
   ZOO 3733C Human Anatomy 4 hours
   PCB 3703C Human Physiology 4 hours
   CHM 1032 General Chemistry 3 hours
   CHM 2045L Chemistry Fund Lab 1 hour
   PHY 3053C College Physics 4 hours
5. Professional curriculum

   Fall Junior
   RET 3026 Introduction to Resp Care 4 hours
   RET 3484 Cardiopulmonary Physiology 4 hours
   HSC 4550 Pathologic Mechanisms 3 hours
   APB 4651 Medical Pharmacology I 2 hours
   HSA 4193 Health Care Automation 3 hours
   16 hours

   Spring Junior
   RET 4503 Chest Medicine 3 hours
   RET 4244 Life Support Systems 3 hours
   RET 3264 Mechanical Ventilation 3 hours

207
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<td>RET 4414</td>
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<td>HSC 4700</td>
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<td><strong>Total Semester Credit Hours Required</strong></td>
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**Registered Respiratory Therapist — RRT Transfer**

Thirty one credit hours may be granted toward the Bachelor of Science in Cardiopulmonary Sciences for Registered Respiratory Therapists (RRT) with an Associate in Science Degree from a Florida public community college. All applicants must meet university, college, departmental, and program requirements for admission. Registered Respiratory Therapists should contact the program for RRT Transfer applications and specific information.

**Program in Health Information Management**

**Director:** C. Barr, HP 220, Phone (407) 823-2359

Health Information Managers are professional members of the modern health care team responsible for: (1) the acquisition and supervision of complete medical records on each patient, (2) the design and management of health information systems which collect, process, store, retrieve, and release health information and statistics, (3) assistance to administration, other health professionals, and medical staff in developing quality assurance programs by abstraction of medical data, preparation of statistical reports, and analysis of information, and (4) assistance in collection and analysis of data for public health services planning.

The curriculum of the Health Information Management program is approved by the Committee on Allied Health Education and Accreditation of the American Medical Association in collaboration with the Council on Education of the American Health Information Management Association.

Before acceptance to the professional phase of the program, students are required to complete the following prerequisite courses: anatomy with lab, physiology with lab, statistics, and an introductory course in finance or accounting.

Application and acceptance to the University does not constitute admission to the program. SEPARATE APPLICATION must be made directly to the upper-division, limited access HIM program prior to February 1st of the year in which prerequisites will have been met to be considered an applicant. A personal interview is also required.

Upon completion of the approved program, the student is eligible to submit an application for writing the national registration examination administered by the American Health Information Management Association to qualify as a Registered Record Administrator.
Bachelor of Science: Health Information Management

Degree Requirements
1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 35 hours
3. See special college and/or department requirements
4. Required Courses
   - APB 3600 Introduction to Pharmacology  3 hours
   - COM 3110 Business and Professional Communication  3 hours
   - ENC 3210 Business Report Writing  3 hours
   - HSA 3170 Health Care Finance  3 hours
   - HSA 4193 Health Care Automation  3 hours
   - HSC 3640 Health Law  3 hours
   - HSC 3531 Medical Terminology  3 hours
   - HSC 4550 Pathophysiologic Mechanisms  3 hours
   - MAN 3025 Management of Organizations  3 hours
   - MAN 3301 Personnel Management  3 hours
   - MRE 3000 Introduction to Health Information Management  4 hours
   - MRE 3110 Health Record Organization & Management  5 hours
   - MRE 3800 Directed Practice I  2 hours
   - MRE 3810 Directed Practice II  2 hours
   - MRE 4202 Coding Procedures  5 hours
   - MRE 4203 Coding Procedures II  3 hours
   - MRE 4304 Health Information Department Management  3 hours
   - MRE 4312 Analysis of Health Information Department Operations  4 hours
   - MRE 4400 Health Records and Standards  4 hours
   - MRE 4500 Quality Assessment  4 hours
   - MRE 4830 Directed Practice III  2 hours
   - MRE 4832 Directed Practice IV  2 hours
   - MRE 4835 Management Affiliation  5 hours
   - MRE 4218 Health Information Management Systems  3 hours

Total Semester Hours Required  130

Program in Health Services Administration

Director: S. Lytle, HPB 102, (407) 823-2972

The Program offers a baccalaureate degree in Health Services Administration and a master’s degree in Health Sciences with an emphasis in Health Services Administration. The baccalaureate degree is designed for graduates of associate of science degree programs in nursing or allied health who desire to study health services administration. People within the health care industry with associate of science degrees in areas such as nursing, respiratory therapy, radiologic technologies, medical laboratory technology, dental hygiene, and others may find this program providing a migration path from the clinical side of the health care industry to the business or leadership side. Students without a background in the health care industry can also be accommodated to build a background in health services administration.

Degree Requirements:
1. See Undergraduate Degree Requirements
2. UCF Residency Requirements: 31 hours
3. Prerequisite Courses:
   - STA 2014 Principles of Statistics  3 hours
   - ECO 2013 Principles of Economics  3 hours
   - MAC 1104 College Algebra  3 hours
   - CGS 3000 Computer Applications for Business  3 hours
4. Required Courses

<table>
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<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MAN 3025</td>
<td>Management of Organizations</td>
<td>3</td>
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<tr>
<td>MAR 3023</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ACG 2001</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
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<tr>
<td>COM 3110</td>
<td>Business and Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>HSA 3122</td>
<td>U.S. Health Care Systems</td>
<td>3</td>
</tr>
<tr>
<td>HSC 4500</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HSC 4564</td>
<td>Health Care Needs of the Elderly</td>
<td>3</td>
</tr>
<tr>
<td>HSC 3531</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HSC 4651</td>
<td>Health Care Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HSC 3640</td>
<td>Health Law</td>
<td>3</td>
</tr>
<tr>
<td>HSA 4180</td>
<td>Organization and Management of Health Agencies</td>
<td>3</td>
</tr>
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<td>HSA 4193</td>
<td>Health Care Automation</td>
<td>3</td>
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<tr>
<td>HSA 3170</td>
<td>Health Care Finance</td>
<td>3</td>
</tr>
<tr>
<td>HSA 4700</td>
<td>Health Science Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>HSA 4120</td>
<td>Community Health Services</td>
<td>3</td>
</tr>
</tbody>
</table>

The above required courses must be completed with a grade of “C” or higher.

5. Electives:

Students with an associate of science degree in a health care clinical discipline may receive up to 30 hours of directed field experience. Students will be evaluated by their academic advisor. Generic students without the associate of science degree should select elective hours with their advisor. Students are encouraged to work on courses that will enhance their background in the health care industry. These may be used to build minors offered by the University. Examples include: Business, Computer Sciences, Information Systems, and Public Administration. Courses leading to a Certificate in Gerontology are appropriate. Electives in advanced scientific, clinical or quantitative subjects are also advisable.

6. Total Semester Hours Required: 123

MINOR

The Program in Health Services Administration offers a minor consisting of a minimum of 18 semester hours. To receive a minor, the student must complete the course work and maintain at least a 2.5 GPA and a minimum of “C” on all courses required for the Health Services Administration Minor.

Required Courses: HSA 3170, HSA 4180, HSC 4500, HSA 3122, HSA 4193, and HSC 3531.

Long Term Care Administration Option

Implementation of this option is on temporary hold.

Degree Requirements

1. See Undergraduate Degree Requirements.

2. Prerequisites:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>STA 2014</td>
<td>Statistics</td>
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<td>CGS 1060</td>
<td>Introduction to Computer Science</td>
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3. Requirements:

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<th>Course Title</th>
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<td>Management Accounting</td>
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<td>APB 3600</td>
<td>Introduction to Pharmacology</td>
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<td>DEP 3464</td>
<td>Psychology of Aging</td>
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<tr>
<td>HSA 4700</td>
<td>Health Sciences Research Methods</td>
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<td>HSA 4180</td>
<td>Organization and Management for Health Agencies</td>
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<td>HSA 3170</td>
<td>Health Care Finance</td>
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<td>HSC 4651</td>
<td>Health Care Ethics</td>
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<td>HSA 3122</td>
<td>U.S. Health Care Systems</td>
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<td>HSA 3210</td>
<td>Long Term Care Administration</td>
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<tr>
<td>HSA 4120</td>
<td>Community and Public Health Services</td>
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<td>HSC 3640</td>
<td>Health Law</td>
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<tr>
<td>HSC 4550</td>
<td>Pathophysiologic Mechanisms</td>
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<td>Epidemiology</td>
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<td>HSC 4564</td>
<td>Health Care Needs of the Elderly</td>
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<tr>
<td>HSC 3531</td>
<td>Medical Terminology</td>
<td>3</td>
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<td>HUN 3011</td>
<td>Human Nutrition</td>
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<td>MAN 3301</td>
<td>Personnel Management</td>
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<td>MAR 3023</td>
<td>Marketing</td>
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<td>MRE 4420</td>
<td>Health Legislation</td>
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<td>PCB 3703C</td>
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<td>SOW 4644</td>
<td>Social Services for the Elderly</td>
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<td>SYP 4730</td>
<td>Sociology of Aging</td>
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<td>ZOO 3733C</td>
<td>Human Anatomy</td>
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<tr>
<td>HSA 4941</td>
<td>Internship — Nursing Home Administration</td>
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<td><strong>Total Semester Hours</strong></td>
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**Program in Radiologic Sciences**

**Director:** T. J. Edwards III, HPB 104, Phone (407) 823-2747

The University of Central Florida offers the only accredited Bachelor of Science in Radiologic Sciences degree program in Florida. The Radiologic Sciences Program offers students the opportunity to specialize in either Radiography or Radiation Therapy. Radiographers and Radiation Therapists are integral members of the health care team dedicated to providing high quality patient care. Graduates are prepared to function as clinically competent Radiographers or Radiation Therapists and, with experience, advance to leadership positions in their profession. Employment opportunities in both fields are excellent.

The primary role of Radiographers is to perform medical imaging procedures for the diagnosis of disease and injury. The Radiographer enjoys an interesting and challenging variety of examinations/procedures which may include conventional radiography, fluoroscopy, vascular imaging, computed tomography and magnetic resonance imaging. Employment opportunities are available in hospitals, imaging centers, and private physician offices. Career advancement opportunities include positions in administration, education, quality assurance, and public health physics.

Radiation Therapists work closely with physicians to deliver high energy radiation for the treatment of cancer. The Radiation Therapist delivers the prescribed amount of radiation to the precise tumor site while assessing and reporting patient progress throughout the course of treatment. Employment opportunities are available in hospitals and treatment centers. Career advancement opportunities include positions in radiology administration, education, quality assurance, and dosimetry.

The program works in conjunction with Central Florida Regional Hospital, Sanford; Jewett Orthopedic Clinic, Winter Park; Halifax Medical Center, Daytona Beach; South Seminole Community Hospital, Longwood; and Winter Park Memorial Hospital, Winter Park.

The programs in Radiography and Radiation Therapy Technology are accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Radiologic Technology (JRCERT). Graduates are eligible to apply for admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT). The University of Central Florida is the sponsoring institution for the Radiography program. Halifax Hospital Medical Center is the sponsoring institution of the Radiation Therapy program.

The application deadline for admission to the upper-division, limited access phase of the program is February 1 of the year in which admission is sought. In addition to a formal interview, admission criteria include completion of the General Education Program and prerequisite course requirements and admission to the university as an upper division student.

A minimum overall GPA of 2.50 and a minimum grade of "C" in prerequisite and major courses is required for admission to, continuation in, and graduation from the Radiologic Sciences Program.
Bachelor of Science: Radiologic Sciences

Degree Requirements
1. See Undergraduate Degree Requirements
2. UCF Residency Requirements: Radiography Program — 33 hours
   Radiation Therapy Program — 34 hours
3. See special college and/or department requirements
4. Required courses

Prerequisites
- CGS 1060: Introduction to Computer Science (3 hours)
- MAC 1104: College Algebra (3 hours)
- PCB 3703C: Human Physiology (4 hours)
- PHY 3053C: College Physics I (4 hours)
- PHY 3054C: College Physics II (4 hours)
- ZOO 3733C: Human Anatomy (4 hours)

Professional Phase
Radiography Program of Study

<table>
<thead>
<tr>
<th>JUNIOR LEVEL</th>
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<th>Course Title</th>
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<td>Introduction to Radiologic Sciences</td>
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<tr>
<td>RTE 3111C</td>
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<td>Introduction to Patient Care</td>
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<tr>
<td>RTE 3503C</td>
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<td>Radiographic Procedures I</td>
<td>3</td>
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<tr>
<td>RTE 3418C</td>
<td></td>
<td>Principles of Radiographic Exposure I</td>
<td>3</td>
</tr>
<tr>
<td>RTE 3804</td>
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<td>Clinical Education I</td>
<td>4</td>
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<tr>
<td>RTE 3513C</td>
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<td>Radiographic Procedures II</td>
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<tr>
<td>RTE 3457C</td>
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<td>Principles of Radiographic Exposure II</td>
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<td>RTE 3684</td>
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<td>Physics of Image Production</td>
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<td>RTE 3367C</td>
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<td>Medical Physics</td>
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<td>STA 3023</td>
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<td>Statistical Methods I</td>
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<td>Pathophysiologic Mechanisms</td>
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<tr>
<td>RTE 4563</td>
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<td>Special Radiographic Procedures</td>
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<td>RTE 4782</td>
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<td>Pathophysiology</td>
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<td>RTE 4814</td>
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<td>RTE 4573</td>
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<td>Advanced Imaging Modalities</td>
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<td>RTE 4834</td>
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<td>RTE 4385</td>
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<td>Radiobiology</td>
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<td>RTE 4844</td>
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<tr>
<td>RTE 4473</td>
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<td>Quality Assurance</td>
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<tr>
<td>RTE 4763</td>
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<td>Anatomy for the Medical Imager</td>
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<td>HSC 4243</td>
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<td>Analysis of Instruction in the Health Professions</td>
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<tr>
<td>RTE 4854</td>
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<td>Advanced Clinical Practicum</td>
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<td>HSA 4180</td>
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<td>Organization and Management of Health Agencies</td>
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Electives:
- RTE 4209: Radiological Administrative Practice (2 hours)
- RTE 4903: Directed Study in Radiologic Education (2 hours)
- Total Semester Hours Required: 129 hours

Radiation Therapy Program of Study

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<th>Course Title</th>
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<tr>
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<tr>
<td>RTE 3111C</td>
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<td>Introduction to Patient Care</td>
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<td>RTE 3503C</td>
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<td>RTE 3418C</td>
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<td>RTE 3804</td>
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<td>RTE 3513</td>
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<td>Radiographic Procedures II</td>
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**DEPARTMENT OF MOLECULAR BIOLOGY AND MICROBIOLOGY**

**Chair:** R.N. Gennaro, BL 330, Phone (407) 823-5932  
**Faculty:** Berringer, Charba, Gennaro, Hitchcock, Jacobs, Sweeney, Thornton, Washington, White, Wodzinski

The Department of Molecular Biology and Microbiology offers curricular programs leading to a minor, a Bachelor of Science degree, and a Master of Science degree, each in Molecular Biology and Microbiology. The department also offers a Bachelor of Science degree in Medical Laboratory Sciences.

**PROGRAM IN MOLECULAR BIOLOGY AND MICROBIOLOGY**

The Core Curriculum in the baccalaureate program, with its broad and thorough grounding in the physical, computational, and life sciences, provides a solid foundation in concepts and applications of modern biology to contemporary and future problems. The Restricted Electives component of the baccalaureate program allows each student to enhance his/her academic preparation in areas of morphological, clinical, analytical or investigative applications. Students are also encouraged to gain research experience and exposure to specialized topics not taught in formal courses through the mechanism of directed research and independent study contracts with selected faculty. This thorough, but flexible, program, provides an excellent preparation for industry, graduate education, and for the four-year health professions (chiropractic, medical, dental, optometric, podiatry, pharmacy, and veterinary medicine).

**MINOR IN MOLECULAR BIOLOGY AND MICROBIOLOGY**

The Department of Molecular Biology and Microbiology offers a minor consisting of a minimum of 30 semester hours.

- Required courses, (22 hours) include: BSC 2010C, MCB 3013C, PCB 3233, PCB 3233L, PCB 3523, PCB 4524, and BSC 3404.
- Restricted Electives (8 hours minimum): at least two courses from the Restricted Elective category of the baccalaureate curriculum.

To be eligible for a minor in Molecular Biology and Microbiology, a student must have a GPA of at least 2.0 in all courses taken for the minor, subject to the following constraints:

- A. At least 15 of the required 30 hours must be taken in the Department of Molecular Biology and Microbiology at UCF;
- B. No "D" grades from other institutions will be accepted;
- C. No CLEP, TSD or AP credit will be accepted.
Bachelor of Science: Molecular Biology and Microbiology

Degree Requirements:
1. See Undergraduate Degree requirements.
2. UCF Residency Requirement: 32 hours
3. To be eligible for a major in Molecular Biology and Microbiology, a student must complete all coursework in the baccalaureate curriculum as shown, and, with respect to the Life Sciences portion of the Core Curriculum and the Restricted Electives, earn a GPA of at least 2.0 for all coursework in each of those categories subject to the following constraints:
   A. No CLEP, TSD, or AP credit may be used;
   B. No “D” grades in life science courses from other institutions will be accepted;
   C. A maximum of 3 hours of independent study, directed research, or similar credit may be used as a Restricted Elective or as a substitute for any stated Core Curriculum requirement unless prior Departmental approval is obtained;
   D. A minimum of 20 hours must be taken at UCF in the department of the major.

Molecular Biology and Microbiology Undergraduate Curriculum

I. University Requirements
   General Education Program (Communication, C&H, and Soc. Sci.)  [27]

II. Departmental Requirements
   A. Core Curriculum
      Life Sciences
      BSC 2010C General Biology (4)
      BOT or ZOO 2010C General Botany or General Zoology (3 or 4)
      MCB 3013C General Microbiology (5)
      PCB 3063, 3063L Genetics + Genetics Lab (4)
      PCB 3233, 3233L Immunology + Immunology Lab (4)
      PCB 3523, 4524 Molecular Biology I, II (6)
      BSC 3404 Quantitative Biological Methods (3)
      Chemistry (19)
      CHM 2045, 2046, 2046L General Chemistry I, II, + Lab (8)
      CHM 3210, 3211, 3211L Organic Chemistry I, II, + Lab (8)
      BCH 4053 Biochemistry I (3)
      Math and Stat
      MAC 1104, 1114 College Algebra, College Trigonometry (6)
      STA 3023 Statistical Methods I (3)
      Physics
      PHY 3053C, 3054C College Physics I, II (8)
   B. Restricted Electives (Select 6 courses in consultation with advisor)  [17-26]
      MCB 5235 Applied Microbiology (3)
      BCH 4054 Biochemistry II (3)
      BCH 4103L Biochemical Methods (2)
      MCB 3203, 3203L Pathogenic Microbiology + Lab (4)
      MCB 4114C Microbial Systematics and Diagnostics (4)
      MCB 4414 Microbial Metabolism (3)
      MCB 4603 Environmental Microbiology (3)
      MCB 5205 Infectious Process (3)
      MCB 5505C Virology (3)
      PCB 3703C Human Physiology (4)
      PCB 5235C Immunopathology (4)
      PCB 5806C Endocrinology (3)
      ZOO 3733C Human Anatomy (4)
      ZOO 4603C Vertebrate Embryology (5)
      ZOO 4753C Vertebrate Histology (5)
      ZOO 5745C Essentials of Neuroanatomy (4)
   III. Unrestricted Electives
      Total Credits Required for Degree 128
Notes: (1) Those students interested in pursuing graduate or professional education are strongly advised to select the following courses: Physics for Scientists and Engineers I & II (PHY 3048, 3049, 3048L, 3049L); Applied Calculus I & II (MAC 3253, 3254) or Calculus with Analytic Geometry I & II (MAC 3311, 3312).

**Program in Medical Laboratory Sciences**

**Director:** D. Hitchcock, BIO 104, Phone (407) 823-2359

Medical technologists are involved in medical diagnosis, treatment, surveillance, management, research, and education. They use highly sophisticated equipment such as electronic cell counters, automated analyzers, computers, and microscopes in the examination of body tissues and fluids.

The curriculum is designed to give students a thorough background in the physical and biological sciences; to develop the understanding, skills, and ability essential to assume leadership roles in management and education; to develop a high level of proficiency in the clinical laboratory; and to develop an awareness for continuing education needed for professional growth.

Admission to the University does not constitute admission to the upper-division, limited access Medical Laboratory Sciences Program. SEPARATE APPLICATION must be made through the Medical Laboratory Sciences Office prior to March 1st of the year for which admission is sought. For the last seven months of the program the students will be assigned to a hospital laboratory for clinical experience. The affiliated hospitals are located in Lakeland, Orlando, Winter Haven and Rockledge. It may be necessary for the student to relocate to any of these areas for this period. A minimum 2.5 overall GPA is required for clinical assignment.

The degree in Medical Laboratory Sciences will be awarded upon completion of the University's didactic program and the clinical program in an affiliated hospital.

Upon receiving the degree in Medical Laboratory Sciences, the graduate will be eligible to write a national certification examination and the State of Florida licensure examination.

**Bachelor of Science: Medical Laboratory Sciences**

**Degree Requirements**

1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 34 hours
3. See special college and/or department requirements
4. Required Courses

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<thead>
<tr>
<th>Prerequisites for professional phase admission</th>
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<tr>
<td>CGS 3000C Computer Fundamentals for Business</td>
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<tr>
<td>Applications</td>
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<tr>
<td>BSC 2010C General Biology</td>
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<td>MCB 3013C General Microbiology</td>
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<tr>
<td>CHM 2045, 2046 Chemistry Fundamentals I &amp; II</td>
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<td>CHM 2046L Chemistry Fundamentals II Laboratory</td>
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<td>ZOO 3733C Human Anatomy</td>
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<tr>
<td>PCB 3233 Immunology</td>
<td>3 hours</td>
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<td>PCB 3233L Immunology Lab</td>
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<tr>
<td>MLS 3220 Clinical Microscopy with Lab</td>
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<tr>
<td>MLS 3305C Hematology</td>
<td>4 hours</td>
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<tr>
<td>MLS 3xxx Concepts in Education/Management</td>
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<tr>
<td>MLS 4830C, 4831C, 4832C, 4833C, 4834C Clinical Practice I, II, III, IV, &amp; V</td>
<td>20 hours</td>
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<tr>
<td>MLS 4460 Clinical Pathogenic Microbiology</td>
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<tr>
<td>MLS 4625C, 4630C Advanced Clinical Chemistry I &amp; II</td>
<td>8 hours</td>
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<td>MLS 4334C Hemostasis</td>
<td>2 hours</td>
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MLS 4550C Clinical Immunohematology 4 hours
MLS 4420C Clinical Mycology 1 hour
MLS 4430C Clinical Parasitology 2 hours
MLS 4511C Immunodiagnostics 2 hours
HSA 4700 Research in Health Sciences 3 hours
MLS 4932 Medical Technology Seminars 1 hour

5. Restricted Electives: 6 hours
6. Electives: Total Semester Hours Required 135

DEPARTMENT OF NURSING
Acting Chair: J. E. Dorner, HP 410, Phone (407) 823-2744
Faculty: Browne-Krimsley, Brunell, Covelli, Dorner, Giovinco, Gropper, Hennig, Kijek, Noil, Peragallo, Ramey, Smith, Wink

The nursing curriculum leads to the Bachelor of Science in Nursing degree, the basis of professional nursing practice. The BSN graduate is prepared to provide comprehensive care in a variety of acute, community, and rehabilitative settings. Program emphasis includes clinical nursing practice, health promotion and maintenance, and preparation for assuming leadership roles. The baccalaureate curriculum provides the foundation for graduate study in nursing.

Acceptance to the University does not constitute admission to the upper-division, limited access nursing major. SEPARATE APPLICATION must be made directly to the Admissions Office prior to January 15 of the year in which Fall admission is sought. Completion of the A.A. degree or General Education Program is required along with prerequisite courses with a grade of "C" or better, and completion of the university foreign language admission requirement. Graduates are eligible to take the licensing examination for registered nurses.

Bachelor of Science: Nursing

Degree Requirements
1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 33 hours
3. See special college and or department requirements
4. Required Courses
   Prerequisites to Nursing Major to be satisfactorily completed prior to admission to the major
   * MCB 3013C General Microbiology 5 hours
   ZOO 3733C Human Anatomy 4 hours
   PCB 3703C Human Physiology 4 hours
   *CHM 2205 Introduction to Organic/Biochemistry 5 hours
   STA 2014 Principles of Statistics 3 hours
   or 3023 Human Growth and Development 3 hours
   *SOW 3104 Developmental Psychology 3 hours
   or
   DEP 3004 Human Nutrition 3 hours
   *HUN 3011
   *Not required of RNs
   RNs who have had only one semester of a combined anatomy and physiology course may satisfy the requirement for a second semester of anatomy and physiology if they complete pathophysiological mechanisms with a grade of B or better.

Upper-Division Professional Phase

   HSC 4550 Pathophysiological Mechanisms 3 hours
   +NUR 3119 Introduction to Baccalaureate Nursing 3 hours
   +NUR 3748C Concepts Basic to Nursing Practice 6 hours
   NUR 3066 Health Assessment 3 hours
   NUR 3165 Critical Inquiry 3 hours
   *NUR 3749C Scientific Theories of Nursing I 6 hours
   *NUR 3217C Scientific Theories of Nursing II 6 hours
   *NUR 3755C Scientific Theories of Nursing III 5 hours
   *NUR 3355C Scientific Theories of Nursing IV 5 hours
The physical therapy program at the University of Central Florida is an accredited entry-level curriculum leading to a Bachelor of Science in Physical Therapy degree. Graduates will be eligible to take the state licensure examination in any state in the United States, or comparable examination in foreign countries with practice acts regulating the practice of health professionals. Graduates of entry-level programs are prepared to practice in an ethical, legal, safe, caring and effective manner in a variety of acute, community, rehabilitative, or private health care settings, providing both physical and psychosocial intervention. Graduates are able to screen individuals to determine the need for physical therapy examination or for referral to other health professionals. They can determine in any patient with physical dysfunction a diagnosis that is within the scope of physical therapy. They can design and manage a comprehensive physical therapy plan of care that includes a comprehensive treatment plan, appropriate delegation to and supervision of other support personnel, accurate and thorough documentation of the delivery, and quantified results of, the plan of care, and participation in discharge planning and follow-up care. Graduates are also prepared to pursue graduate studies in and out of physical therapy, and/or specialty training and certification in all recognized physical therapy specialties.

The entry-level professional curriculum is a full-time program. It is seven consecutive semesters in length, including clinical practicums and internships ranging from one week to four months long. A new entering class begins the program in May of each year. Acceptance to the University, however, does not constitute admission to this upper-division, limited access program. Separate application must be completed for the Department of Physical Therapy at UCF by November 15 preceding the year in which admission is sought. Complete information regarding application procedures is available from the University Admissions Office.

Admission Requirements
A. UCF Students:
1. Completion of all GEP requirements.
2. UCF Residency Requirement: 35 hours
3. Satisfaction of CLAST requirement
4. Completion of, with no grade lower than "C", all courses used to satisfy Prerequisite Requirement (see Section D, below).

B. Transfer Students:
1. A.A. degree from a state supported community college or State University System of Florida institution, or bachelor's degree from any accredited senior college in the United States or Canada.
2. Completion at an accredited institution in the United States or Canada, and with no grade lower than "C", all courses used to satisfy Prerequisite Requirement (see Section D, below).
C. All Students:
1. SAT or ACT scores
2. Courses strongly recommended but not required: Critical Thinking, Calculus, Biochemistry, CPR certification, medical terminology, additional biology courses, additional psychology courses.
   Any courses not selected in Section D.
3. Overall GPA of at least 3.0, and a minimum GPA of 3.0 in prerequisite courses with a minimum grade of "C" in all courses used to satisfy the Prerequisite Requirement (see Section D, below).
4. A minimum of 200 documented clock hours experience working, volunteering or shadowing in a physical therapy facility with a licensed physical therapist by the application deadline.
5. Demonstrated interpersonal abilities and potential for leadership.
7. Receipt of a completed Physical Therapy Application for Admission by the November 15 deadline.
8. Completion of all Prerequisite Requirements by the November 15 application deadline (see Section D, below).

D. Prerequisite Requirement:
1. Behavioral Sciences (a minimum of one course in each category):
   a. General Psychology
   b. Advanced Psychology, e.g., Developmental or Abnormal Psychology.
2. Natural Sciences
   a. Biology — General Biology, Human Anatomy, and Human Physiology courses, with labs, acceptable toward a major in a biological science.
   b. Chemistry — General Chemistry, with lab, for chemistry majors, or a one-year survey sequence of General Chemistry and Organic/Biochemistry.
   c. Math — a course in College Algebra; and the first course in Statistics for science majors.
   d. Physics — College Physics (algebra based), or University Physics (calculus based), with labs.

Bachelor of Science: Physical Therapy

Degree Requirements
1. See Undergraduate Degree Requirements.
2. Departmental Requirements: to be eligible for a baccalaureate degree in physical therapy, a student must complete all academic and clinical education courses prescribed in the professional curriculum, as shown in Section 4 below, with no grade less than "C", and be recommended for the degree by the academic and clinical faculty.
3. Preprofessional Curriculum: 60
   A. Prerequisite Requirements (The following is an example of a selection (40) of courses that may be used to satisfy the Prerequisite Requirement)
      PSY 2013 General Psychology 3 hours
      CLP 3143 Abnormal Psychology 3 hours
      BSC 2010C General Biology 4 hours
      ZOO 3733C Human Anatomy 4 hours
      PCB 3703C Human Physiology 4 hours
      CHM 2045 Chemistry Fundamentals I 4 hours
      CHM 2046 Chemistry Fundamentals II 4 hours
      MAC 1104 College Algebra 3 hours
      STA 3023 Statistical Methods I 3 hours
      PHY 3053C College Physics I 4 hours
      PHY 3054C College Physics II 4 hours
   B. Remaining General Education Program (24)
4. Professional Curriculum: 79
   A. First Professional Year (40)
      PHT 3200C Introduction to Caring for Patients 3 hours
      PHT 3110C Clinical Gross Anatomy 6 hours
      PHT 3002C Foundations of Physical Therapy I 2 hours
      PHT 3003C Foundations of Physical Therapy II 2 hours
PHT 3120C Clinical Kinesiology 4 hours
PHT 3216C Theory and Procedures of Physical Therapy I 3 hours
PHT 3222C Therapeutic Exercise I 2 hours
PHT 3821 Clinical Education I 1 hour
PHT 3142C Clinical Neuroscience 4 hours
PHT 3223C Therapeutic Exercise II 2 hours
PHT 3217C Theory and Procedures of Physical Therapy II 2 hours
PHT 3350 Medical Science and Pharmacology I 2 hours
PHT 3600 Introduction to Clinical Research 2 hours
PHT 3155C Physiology of Therapeutic Exercise 3 hours
PHT 3069 Physical Assessment I 2 hours

B. Second Professional Year
PHT 4822 Clinical Education II 2 hours
PHT 4232C Therapeutic Exercise III 2 hours
PHT 4320C Pedontology (Pediatric) 3 hours
PHT 4300 Medical Science and Pharmacology II 2 hours
CLP 4402C Psychological Aspects of Disability 3 hours
PHT 4233C Therapeutic Exercise IV 2 hours
PHT 4310C Orthopedic Problems in Physical Therapy 2 hours
PHT 4311C Neurological Problems in Physical Therapy 2 hours
PHT 4610 Clinical Research Problems I 1 hour
PHT 4823 Clinical Education III 1 hour
PHT 4004C Foundations of Physical Therapy III 2 hours
PHT 4410C Teaching and Learning in Physical Therapy 3 hours
PHT 4001 Professional Issues 1 hour
PHT 4370C Cardiopulmonary Problems in Physical Therapy 2 hours
PHT 4372 Gerontology in Physical Therapy Practice 2 hours
PHT 4510 Management of Physical Therapy Services 3 hours
PHT 4620 Clinical Research Problems II 1 hour
PHT 4831 Clinical Internship I 2 hours
PHT 4832 Clinical Internship II 3 hours
Total Semester Hours Required for Degree 139

PRE-HEALTH PROFESSIONALS: See Pre-Health Professions Advising.

DEPARTMENT OF PUBLIC ADMINISTRATION

Interim Chair: W. Lawther, PH 102, Phone (407) 823-2604
Faculty: Aristigueta, Colby, K. Denhardt, R. Denhardt, Glaser, Jurie, Lawther, Shapek

The Public Administration course of study is designed to provide students with a broad understanding of the roles and functions of administrative agencies in the American system of government as well as prepare them for professional careers in public service at the federal, state, regional, or local level. Satisfactory completion of program requirements leads to the degree of Bachelor of Arts with a major in Public Administration. The baccalaureate program in Public Administration is offered on the Orlando and Brevard campuses.

Bachelor of Arts: Public Administration

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (27 semester hours)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<td>PAD 3003</td>
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<tr>
<td>PAD 4034</td>
<td>Administration of Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>PAD 4104</td>
<td>Administrative Theory</td>
<td>3</td>
</tr>
<tr>
<td>PAD 4204</td>
<td>Fiscal Management</td>
<td>3</td>
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<tr>
<td>PAD 4414</td>
<td>Public Personnel Administration</td>
<td>3</td>
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<tr>
<td>POS 2041</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013</td>
<td>Principles of Economics I</td>
<td>3</td>
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</table>

219
CGS 1060 or CGS 3000 or Computer Fundamentals for Business Applications
STA 2014 or STA 3023 or Principles of Statistics or Statistical Methods I
or PAD 4270 or Survey Research or a course in social science research with an emphasis on statistical methods.

4. Restricted Electives
30 additional semester hours taken from: (1) Public Administration electives including the internship; and (2) one or more allied public science fields. All courses are selected with and approved by the student’s advisor. Among such supporting fields are accounting, legal studies, communications, computer sciences, criminal justice, economics, political science, social work, sociology, and statistics.

5. Electives

MINOR
The public administration program offers a minor in public administration consisting of 21 hours:
1. All five of the required core courses for the PAD major will be required of the PAD minor. These are: PAD 3003, PAD 4414, PAD 4104, PAD 4202, and PAD 4034.
2. Two additional courses may be selected from among the list of PAD restricted electives or related courses in other fields. These courses will be chosen with the consent of the PAD undergraduate advisor.

DEPARTMENT OF SOCIAL WORK
Chair: I. Colby, TR 542, Phone (407) 823-2114
BSW Program Director: C. Green
Faculty: Abel, Colby, Green, Kazmerski, Leo, Pomeroy, Poole, Suh

The Department of Social Work offers a professional degree program which is nationally accredited by the Council on Social Work Education. Its primary focus is the preparation of students for entry-level professional social work practice within diverse human service organizations such as hospitals, schools, correctional settings, public welfare departments, child placement organizations, community centers, and counseling agencies.

Applications to the limited access program may be obtained at the Department of Social Work. For acceptance into the program students must have a 2.0 overall GPA, must have completed an AA (from a Florida State Community College) or U.C.F. General Education Program, and must have completed 18 semester hours of pre-professional courses (see Section 3 below for list of courses). Personal qualifications include intelligence, initiative, social concern, appreciation for human diversity, dependability, humanitarian interests in helping people and in improving human services and college-level reading and writing skills. Student qualifications are reviewed initially and on an ongoing basis.

To qualify for graduation and for entry into field education (SOW 4510), a student must have a 2.5 GPA in the major. Students also must complete 30 credits hours in social work at UCF to graduate from the program.

Bachelor of Social Work
Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses
   UCF general education requirements, or AA degree from a Florida state community college
Pre-professional courses, to be completed PRIOR to admission to the major:

- POS 2041 American Government 3 hours
- BSC 1020C Biology 3 hours
- CGS 1060C Computer Science 3 hours
- ECO 2013 Economics 3 hours
- PSY 2013 Psychology 3 hours
- SYG 2000 Sociology 3 hours

Professional foundation requirements (45 hours)

- SOW 3104 Assessing Human Development 3 hours
- SOW 3111 Assessing Human Systems 3 hours
- SOW 3203 Social Welfare and Community Resources 3 hours
- SOW 3401 Social Work Research 3 hours
- SOW 3620 Social Work with Minorities 3 hours
- SOW 4431 Evaluating Social Work Practice and Service Programs 3 hours
- SOW 3300 Generalist Practice in Social Work 3 hours
- SOW 3352 Interpersonal Skills in Social Work Practice 3 hours
- SOW 4232 Social Welfare Policies and Issues 3 hours
- SOW 4341 Micro-level Roles and Interventions in Social Work 3 hours
- SOW 4343 Macro-level Roles and Interventions in Social Work 3 hours
- SOW 4510 Field Education 9 hours
- SOW 4522 Field Education Seminar 3 hours

4. Social Work Elective 3 hours

5. Foreign Language or Cultural Diversity 6 hours

The Department will require that all social work majors either meet the requirements of the UCF foreign language policy for the BA degree or complete two courses in foreign culture or cultural diversity. Specific details are available from the department.

**Gerontology Certification Program**

In recognition of the special needs of the elderly citizens of Central Florida, the University offers a fifteen hour interdisciplinary program leading to a Certificate in Gerontology. The program is completed with the undergraduate major of the student and is administered by the Department of Health Sciences. The program may be of particular interest to students who are majoring in health sciences, psychology, social work, nursing, or sociology. Other students, such as those majoring in music, music education, physical education, or art education may also find the program valuable.

To receive the Certificate in Gerontology, the students must successfully complete the following courses:

- DEP 3464 Psychology of Aging 3 hours
- HSC 4564 Health Care Needs of the Elderly 3 hours
- SYP 4730 Sociology of Aging 3 hours
- SOW 4644 Social Services for the Elderly 3 hours

Students interested in certification should contact the Department of Social Work office at (407) 823-2114.
DIVISION OF CONTINUING EDUCATION

Associate Vice President: Thomas A. Shostak
Administrative Assistant: Linda Hayes Gallegos
800 North Magnolia Avenue, Suite 601
Orlando, Florida 32803
(407) 423-6935

CENTER FOR MULTILINGUAL MULTICULTURAL STUDIES

Director: Consuelo Stebbins, TR 547, (407) 823-6110
Coordinator: Myrna Creasman, TR 547, (407) 823-5515

Using contemporary teaching methodology and computer-assisted instruction, the Center for Multilingual Multicultural Studies provides English language instruction for international students and area business persons. Four levels of instruction are offered which range from beginning to advanced, and special attention is given to preparing students for academic coursework in their specialized fields of study. Full-time students enrolled at the advanced level may elect to take courses as nondegree-seeking students while enrolled in the Intensive English program. Students are required to take an entry placement test to determine their level of proficiency. Student (F-1) visas are extended to qualified applicants. The Center also offers English for Special Purposes for international business personnel.

CENTER FOR OUTREACH CREDIT PROGRAMS

Director: Dale A. Badger, TR 547, (407) 823-6108
Program Coordinator: Elizabeth Baab, TR 547, (407) 823-6114

The Center for Outreach Credit Programs serves as a facilitator for the academic colleges and performs the overall planning, coordination, and management of approved off-campus credit courses, degree programs, sponsored contract courses, and accelerated on-campus instruction for students. Outreach credit courses and programs offered by the academic colleges and coordinated by the Center are tailored to meet the educational needs of local residents and area business, industry, and government employees. The goal of the Center for Outreach Credit Programs is to unite University and public/private sector resources for the purpose of providing to participants an opportunity to achieve personal aspirations and to maintain or enhance their professional and technical competencies. Registration in outreach credit courses does not require admission to the University, nor does it imply acceptance.

CENTER FOR PROFESSIONAL DEVELOPMENT

Associate Director: Consuelo Stebbins, TR 547, (407) 823-6110
Program Coordinator: John Duryea, TR 547, (407) 823-6111

The Center for Professional Development offers non-credit educational programs designed to meet the professional development needs of individuals and organizations throughout the State and the region. Offerings include seminars, workshops, conferences, symposia, and certificate programs that enable practitioners to seek personal enrichment and/or professional advancement. Programs are developed in cooperation with the academic colleges and institutes, and University faculty and support services are utilized to bring maximum benefit to both non-traditional and traditional learners.

The Center also works closely with business, professional, and service organizations to design the programs that best meet the needs of the working community. To substantiate the content of professional programs, as well as to offer credentials to verify a learner’s participation, Continuing Education Units (CEU's) are offered to qualified and eligible participants.
DISTANCE LEARNING
Director: Thomas A. Shostak, 800 North Magnolia Avenue, Suite 601, Orlando, FL 32803, (407) 423-6935

Through its Instructional Television Fixed Service system (ITFS), UCF offers students at area campuses and at several locations throughout Central Florida the opportunity to “attend” credit courses by way of interactive television. Among the receive sites are the two area campuses (Brevard and Daytona Beach), the two academic centers (South Orlando and Downtown), major corporations and businesses throughout Central Florida, and each of the local community colleges. Certain courses are also available to students on videotape at each of the area campuses and centers. Courses available on videotape or live television are listed each semester in the schedule of classes.

DOWNTOWN ACADEMIC CENTER
Director: Thomas A. Shostak, 800 North Magnolia Avenue, Suite 601, Orlando, FL 32803, (407) 423-6935

In the spring of 1995, UCF will be opening a Downtown Academic Center in the heart of downtown Orlando. The facility will provide office space for several University academic departments and support programs. Four classrooms, including a large lecture hall, will provide space for a variety of credit and non-credit courses and programs designed to meet the needs of the business and residential community of Orlando. Registration, library, and computer services will be provided for students, and parking will be available in an adjacent parking garage.

SOUTH ORLANDO CENTER
Director: Thomas A. Shostak, 7300 Lake Ellenor Drive, Orlando, FL 32809, (407) 655-0881

The South Orlando Center is located in Orlando Central Park, a site convenient to students who live or work in southwest Orange County and north Osceola County. The South Center offers upper division evening courses in business administration, criminal justice and legal studies, and hospitality management; undergraduate and graduate vocational education classes; and a graduate engineering program. It also provides a variety of non-
credit programs specifically designed to meet the needs of business and industry in the area, and serves as a site for statewide meetings and workshops. A television studio at the center has the capacity to receive signals for live interactive television courses. There is a small computer lab for student use, and the library is equipped with LUIS terminals. Admissions and financial aid information is available, as well as on-site registration for all UCF courses.
INSTITUTES AND CENTERS FOR RESEARCH

CENTER FOR RESEARCH AND EDUCATION IN OPTICS AND LASERS (CREOL)

CREOL is the State University System of Florida's Center of Excellence for research and education in optical and laser sciences and engineering. CREOL was established in 1986 to bring together diverse disciplines into cohesive program in optics and lasers. Research activities at the Center are integrated with academic program to insure involvement of both students and faculty. CREOL has 28 faculty positions devoted to lasers and optical sciences and engineering which are rapidly being filled by scholars from around the world. CREOL occupies over 50,000 sq. ft. of space in the Central Florida Research Park adjacent to UCF main campus.

Research Program

CREOL research projects reflect the interdisciplinary nature of the faculty and the faculty's diverse interests and is supported by federal, state, and industrial research grants. Faculty and students pursue joint research projects with industry and government laboratories. Current research activities include: laser propagation, laser/material interaction, nonlinear optics, integrated and guide-wave optics, infrared systems, optical signal processing, laser development, detector technology, ultrafast phenomena, modern x-ray optics and lithography, laser plasma, nonlinear optical spectroscopy, diffractive optics, thin film optics, free electron lasers, optoelectronics, growth of nonlinear and laser host materials, solid state and diode pumped lasers, laser material processing and others. The research facilities include fifty laboratories equipped with over ten million dollars of state-of-the-art optics equipment.

Academic Program

The academic program involves students from various science and engineering departments and reflects the diverse interest of the faculty and students. Degrees of MS and Ph.D. in Optical Sciences and Engineering, Optical Physics, Electrical Engineering and Physics are offered at UCF. The academic program includes 25 specialized courses in electro-optics and lasers as well as basic Electrical Engineering and Physics courses. Graduate research assistantship up to $14,000 per year are available at CREOL for highly qualified students. Exceptional students will be considered for assistantship enhancements up to $4,000 that are available to exceptional students through the Litton Foundation and United Technologies Optical Systems.

Industrial Affiliates Program

CREOL has established an industrial affiliate program to facilitate strong cooperative relationships with industry. The program provides businesses and manufacturers with the benefits of cutting-edge research and with access to the expertise and facilities of CREOL. Faculty members are teaming with Florida-based small businesses to help them compete for federally sponsored SBIR programs. The program provides industry with effective ways to contribute to and sustain the research and teaching in laser and electro-optical technology.

For information contact CREOL, 12424 Research Parkway, Suite 400, Orlando, FL 32826. Phone (407) 658-6800. Contact persons: Dr. M.J. Soileau, Director or Dr. M.G. Moharam, Chair Academic Affairs Committee.

INSTITUTE FOR SIMULATION AND TRAINING (IST)

The Institute for Simulation and Training (IST) is an internationally recognized research institute which focuses on technology advancement in training systems, education, and simulation and modeling.

IST was established in 1982 at the University of Central Florida and is located in the Central Florida Research Park, adjacent to the UCF campus. The Naval Air Warfare Center Training Systems Division (NAWCTSD), the Army Simulation, Training and Instrumentation Command (STRICOM) are also located in the Research Park. Additionally, more than 150 training and simulation companies maintain a presence in the Orlando area, causing the
State of Florida to pass a resolution recognizing this area as the Center of Excellence for Simulation and Training technology.

The Institute serves this simulation and training community by providing a wide range of research services and working with university faculty to help develop curriculum and degree programs in simulation and training disciplines. UCF is the first university in the nation to offer a master's degree in simulation systems.

IST's research staff consists of scientists, engineers, and students. Program Managers and Principal Investigators have complete freedom to tailor interdisciplinary research teams to specific research projects. Several faculty members and graduate students have presented award winning papers at major conferences throughout the country.

IST researchers conduct basic and applied research for a broad range of training devices and programs. IST research areas include: simulation networking, visual simulation (including a Virtual Reality testbed), training systems effectiveness, artificial intelligence/expert systems, team training, computer graphics and animation, user interface design, computer architectures, simulation modeling, cognitive information processing, database design and development, and instructional systems design. Laboratories, work space and administrative offices comprise nearly 38,000 square feet of total floor space in the Park's Barnett Building. Major laboratories include: Visual Systems Lab, Language Technology Lab, Communications Lab, Visual Systems Lab, Low Cost Flight Trainer Lab, Mathematics Simulation Lab, and the Advanced Learning Technology Transfer Center.

In its role as a leader in the simulation and training community, the Institute has undertaken a program of technology transfer. Included in this effort is the development of research projects with potential commercial applications, adaptation of military technology to civilian educational markets, and the communication of research results through seminars, publications and workshops.

Contact Person: Dr. A. Louis Medin, Executive Director, 3280 Progress Dr., (Bennett Building), Orlando, FL, 32826-0544, Phone (407) 658-5000; FAX (407) 658-5059

SPACE EDUCATION AND RESEARCH CENTER (SERC)

The Space Education and Research Center (SERC) is an interdisciplinary organization that relies on faculty participation from all five colleges of the University.

SERC's goal is to maximize space research opportunities for UCF faculty and students, while providing highly valued results to the space community.

SERC Objectives are to:

- Facilitate the performance of research to advanced space technology.
- Serve as a catalyst to advance educational opportunities and experiences.
- Provide researchers with access to the upper atmosphere and space.
- Upgrade UCF capabilities through training and development programs.
- Advocate UCF's contributions to commercial space services.
- Be an active participant in the international space community.

Space research areas of interest include advanced launch systems, communications, the earth systems sciences, educational technology, and space optics. Over 50 faculty members at the University have expertise and experience in these areas.

In education, SERC serves to aid in the development of new space related courses and programs. SERC also works with industry, government and the Central Florida school districts to improve science and mathematics education through the use of space applications and technology.

Contact Person: William Rock, Director, 12424 Research Parkway, Suite 157, Orlando, FL 32826, Phone: (407) 658-5599, Fax: (407) 658-5595

CENTER FOR APPLIED HUMAN FACTORS IN AVIATION (CAHFA)

The Center for Applied Human Factors in Aviation (CAHFA) has as its mission the enhancement of safety in the nation's airspace system through applied human factors research, systems design and training strategies. Chartered in 1990, CAHFA is a research consortium established between UCF and Charter partner Embry-Riddle Aeronautical University, Daytona Beach, Florida. CAHFA's professional staff maintains offices on both campuses. The complimentary strengths of the two universities are combined to create a research resource that is without peer for solving a vast assortment of aeronautical human factors problems. CAHFA research initiatives are targeted to significantly reduce human
factors related accidents and incidents by determining the efficacy of and by developing strategies for achieving improvements in human performance.

**Contact Person:** Dr. Jefferson M. Koonce, Director and Chief Scientist, Phone (407) 823-1011; FAX (407) 823-5862

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**FLORIDA SOLAR ENERGY CENTER (FSEC)**

The Florida legislature created FSEC in 1974 to conduct research on alternative energy technologies, to improve the quality of available solar energy equipment, and to educate the public about energy options. Located on a 16-acre complex at Cape Canaveral, the center serves as a statewide institute administered by the University of Central Florida.

FSEC conducts state, federal, and privately supported research in photovoltaics, energy use in buildings, electrical end uses, solar water heating, innovative air conditioning systems, and the production and use of hydrogen. In addition, the center has developed and administers state-mandated programs that require the testing, certification, and approval of all solar energy equipment manufactured or sold in Florida. Through its public information office, FSEC responds to more than 15,000 requests for energy information each year. The center also conducts seminars and workshops for teachers and professionals statewide, and its technical library boasts one of the nation's most extensive holdings on solar and alternative energy. Current projects involve solar thermal systems, electric utilities research, hydrogen and energy systems, among others. For information contact the Florida Solar Energy Center, 300 State Road 401, Cape Canaveral, FL 32920-4099.

**Contact Person:** Dr. David Block, Director, Phone (407) 783-0300; FAX (407) 783-2571

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**FLORIDA-CANADA INSTITUTE**

The Florida-Canada Institute is hosted by the University of Central Florida for the State of Florida. The purpose of the Institute is to create and foster educational, commercial, cultural and social exchanges between Canada and Florida. The Institute offers such programs as the Canadian Speakers Series and Summer Seminars on Canadian Studies for school teachers. It provides opportunity for the state-wide dissemination of information about Canada to K-12 schools. Palm Beach Community College is the Florida State Division of Community Colleges co-host for the Florida-Canada Institute.

**Contact Person:** Dr. M. Elliot Vittes, Director, Phone (407) 823-2608.

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**FLORIDA-CENTRAL EAST EUROPE INSTITUTE**

The Florida-Central East Europe Institute is hosted by the University of Central Florida and Lake Sumter Community College for the Florida International Affairs Commission. The purpose of the Institute is to create and foster educational, commercial, cultural and social exchanges between the countries in central and eastern Europe and Florida.

**Contact Person:** Dr. Richard Astro, Director, Research Pavilion, Suite 135, Phone: (407) 658-5570 or (407) 647-8022.

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**SMALL BUSINESS DEVELOPMENT CENTER**

The Small Business Development Center (SBDC) is part of a statewide organization designed to promote economic development by responding to the needs of the small business community. The SBDC, located in the College of Business Administration at the University of Central Florida, is responsible for a geographic area including Orange, Osceola, Lake, Citrus, Volusia, Flagler, and Sumter counties. Regional centers located at Stetson University, Brevard Community College and Seminole Community College assist small business in those areas. Assistance is provided through workshops and individual counseling in the following areas:

- Personnel
- Bookkeeping
- Business Tax
- Franchising
- Marketing
- Sources of Financing
- Product Innovation
- Business Plan Development

Additional programs provide assistance to clients in the areas of government contracting and energy conservation.

**Contact Person:** Mr. Aloyse T. Polfer, Director, BA, Phone (407) 823-5554.
CENTER FOR ECONOMIC EDUCATION

The Center for Economic Education strives to increase public knowledge of economic principles and their applications in daily life.

Researchers at the Center develop, collect, and distribute economic educational materials. They also consult with and provide instruction to area schools (K-12), community colleges, and community organizations. Instruction focuses on the principles of economics and their use in making rational economic decisions. Affiliated with the National Council on Economic Education and the Florida Council on Economic Education, the Center also conducts research in economic education.

Contact Person: Dr. Robert L. Pennington, Director, BA 325, Phone (407) 823-2870

INSTITUTE FOR STATISTICS

The Institute for Statistics provides statistical consulting and analytical support to all areas of the University. The Institute makes valuable contributions to research by supporting non-statistical researchers with statistical consulting assistance during the planning of experiments and investigations, analysis of data, and the evaluation of results.

The Institute also provides statistical support to various government agencies and private organizations.

Contact Person: Dr. Mark E. Johnson, Director, Phone (407) 823-2289.

DICK POPE, SR. INSTITUTE FOR TOURISM STUDIES

The Dick Pope Sr. Institute for Tourism Studies is dedicated to improving the quality of the tourism product and increasing the benefits of tourism accruing to the industry, the state and local community. To this end the Institute is involved in a variety of programs in the fields of research and public awareness.

The research includes the collection, development and dissemination of information relevant to the tourism and hospitality industry in the areas of marketing, consumer behavior and visitor satisfaction, feasibility, economic, motivational, and forecasting. Some of the Institute’s patrons include tourism promotion agencies at the state and local levels; tourism development commissions; professional associations; and private enterprises such as attractions, hotels, motels, food-service establishments, ground and air transportation companies, travel agencies and tour operators, and other related businesses.

The Institute devotes significant efforts to increasing public awareness of the tourism industry in Florida and elsewhere, and of the contribution of the industry to the social and economic welfare of the general public.

Contact Person: Dr. Ady Milman, Director, Phone (407) 823-2188

SMALL BUSINESS INSTITUTE

Business schools have for some years been interested in getting students out of the classroom and involved with real business problems rather than "textbook" situations. By sponsoring the Small Business Institute program, the Small Business Administration does not only satisfy this need, but at the same time provides free professional help to small businessmen who are in need of managerial guidance.

The SBI program uses a team of senior-level undergraduate or graduate-level students who, under faculty supervision, provide management counseling and technical assistance to small business clients. Examples of these services are: general management audits, development of business plans, establishment of accounting systems, design of inventory systems, cost analysis, pricing strategies, and evaluation of alternative markets.

The major objective of the College of Business Administration at the University of Central Florida is to educate men and women for positions of productive responsibility in business and the professions. UCF's Small Business Institute program stresses analytic ability and the student's learning skills in recognizing and coping with change. The Small Business Institute program at the same time provides on the job experience and sound academic training for the student.

Contact Person: Dr. Ron Rubin, Director, Phone (407) 823-2682
INSTITUTE OF GOVERNMENT

The Institute of Government, an affiliate of the Florida Institute of Government, is housed in the Department of Public Administration and provides training and development as well as technical assistance to federal, state, and local government agencies and intergovernmental associations such as the Florida League of Cities. Training workshops, conferences, seminars, action research projects, citizen surveys, strategic planning, and organization development programs are among the services offered by the Institute.

Director: Ms. Marilyn Crotty, Phone: (407) 423-6335

INSTITUTE FOR TECHNICAL DOCUMENTATION

The Institute for Technical Documentation offers a variety of services of client companies, including the development of original technical documentation, the translation of documentation written in foreign languages, and the development of seminars to assist clients in writing their own documentation.

The Institute consists of a core of permanent professional staff, supplemented by University faculty, staff, and students, all of whom have demonstrated expertise in technical writing of documentation. These services are enhanced by the cooperative efforts of educators, engineers, foreign language experts, psychologists, and scientists who act as consultants to the Institute.

Computer-assisted processing aids in translating foreign languages, word processing and editing text, gathering reference material, and conducting information searches. Trained writers, established facilities, and continued contact with personnel in industry and research enable the Institute to engage in a wide variety of documentation projects.

Contact Person: Dr. Daniel Jones, Director, FA 301, (407) 823-2212.

CENTER FOR EXECUTIVE DEVELOPMENT

The Center for Executive Development of the College of Business Administration is committed to providing the best management and executive development programs in the State of Florida. Utilizing the resources of the College and University faculty, visiting executives and educators from around the world, the Center provides management and executive seminars in the areas of real estate, small business, general manager, hospitality and human resources management for over 5,000 participants per year. Programs run from one day to over two weeks in length. Center activities are coordinated by program coordinators who are responsible for the following areas: Public Programming, In-House — Custom Seminars, Real Estate/Small Business 2000 and the Special Projects Groups. Examples of current programming within the Center includes: Train-the-Trainer, Management Development Series, Electronic Meeting/GroupWare Systems, Negotiation Skills, Purchasing, Supervising and Managing People, Lockheed Management Institute, Tax and Accounting Conference.

Also housed within the Center is the International Center for Business Leadership (ICBL). The function of the ICBL is to extend the reach of the College of Business to the global arena with programs that attract participants from around the nation and the world. The ICBL will use a UCF and global faculty network to provide world-class management and executive education programs for individuals and organizations.

Contact Person: Dr. Craig McAllaster, Director, Phone (407) 823-2446.

OAK RIDGE ASSOCIATED UNIVERSITIES (ORAU)

Since 1989, students and faculty of the University of Central Florida have benefited from its membership in Oak Ridge Associated Universities (ORAU), a consortium of colleges and universities and a management and operating contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education, the DOE facility that ORAU manages, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry,
and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the Resource Guide and the Minority Research Education Programs brochure, which are available by calling the contacts below.

ORAU's office for University, Industry, and Government Alliances (UIGA) seeks opportunities for collaborative research and development alliances among ORAU's members, private industry, and major federal facilities. Current alliances include the Southern Association for High Energy Research, the Bioelectromagnetics Research Consortium, High Performance Computing, Bioprocessing, Pan American Association for Physics, Materials Science Forum, and international initiatives in support of the New Independent States in Central and Eastern Europe. Other UIGA activities include the sponsorship of conferences and workshops, the Visiting Scholars program, and the Junior Faculty Enhancement Awards. A copy of Especially for Members, which details UIGA's programs, is available from the contacts below.

For more information about ORAU and its programs, contact Dr. A. Louis Medin, ORAU Council member, at 407-658-5000; or contact Ann H. Patton, ORAU Corporate Secretary, at 615-576-3306.
COURSE DESCRIPTIONS

CLASSIFICATION OF COURSES

The University course numbering system is as follows:

1000-2999 are freshman and sophomore level courses and are designed primarily for these students.

3000-4999 are junior- and senior-level courses and are designed primarily for these and other advanced students. When approved for inclusion in an individual program of graduate study by a supervisory committee approved by the Dean of Graduate Studies, selected 4000-4999 courses may serve the needs of individual graduate students.

5000-5999 are beginning graduate and advanced undergraduate level courses — open to graduate students and those seniors who receive approval of the appropriate Dean(s).

6000-6999 are beginning and professional level courses open only to graduate students and do not apply toward a baccalaureate degree. (See Graduate Catalog)

FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by two participating private institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and assigns the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "course equivalency profiles."

Example of Course Identifier

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Level Code (first digit)</th>
<th>Century Digit (second digit)</th>
<th>Decade Digit (third digit)</th>
<th>Unit Digit (fourth digit)</th>
<th>Lab Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYG</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>No laboratory component in this course</td>
</tr>
<tr>
<td>Sociology, General</td>
<td>Freshman level at this institution</td>
<td>Entry-level General Sociology</td>
<td>Survey Course</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

GENERAL RULE FOR COURSE EQUIVALENCIES

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between the participating institutions that offer the course, with a few exceptions. (Exceptions are listed below.)

For example, a survey course in social problems is offered by 31 different postsecondary institutions. Each institution uses "SYG _010" to identify its social problems course. The level code is the first digit and represents the year in which the students normally take this course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."
In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is offered by the receiving institution and is identified by the same prefix and last three digits at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to native students. It is the prerogative of the receiving institution, however, to offer credit for courses successfully completed which have not been designated as equivalent.

Sometimes, as in Chemistry, a sequence of one or more courses must be completed at the same institution in order for the courses to be transferable to another institution, even if the course prefix and numbers are the same. This information is contained in the individual SCNS course equivalency profiles for each course in the sequence.

THE COURSE PREFIX

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix used to identify the course.

AUTHORITY FOR ACCEPTANCE OF EQUIVALENT COURSES

State Board of Education Rule 6A-10.024(17), Florida Administrative Code, reads:

When a student transfers among institutions that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be equivalent to courses offered at the receiving institution and are entered in the course numbering system. Credit so awarded can be used by transfer students to satisfy requirements in these institutions on the same basis as native students.

EXCEPTIONS TO THE GENERAL RULE FOR EQUIVALENCY

The following courses are exceptions to the general rule for course equivalencies and may not be transferable. Transferability is at the discretion of the receiving institution:

A. Courses in the _900-_999 series (e.g., ART 2905)
B. Internships, practica, clinical experiences, and study abroad courses
C. Performance or studio courses in Art, Dance, Theater, and Music
D. Skills courses in Criminal Justice
E. Graduate courses

College preparatory and vocational preparatory courses may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Dr. David Dees in Enrollment and Academic Services, AD 210, Phone (407) 823-2691 or the Florida Department of Education, Office of Postsecondary Education Coordination, 1101 Florida Education Center, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling (904) 488-6402 or Suncom 278-6402.
<table>
<thead>
<tr>
<th>Prefix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACG</td>
<td>Accounting General</td>
</tr>
<tr>
<td>ACO</td>
<td>Accounting: Occupational Technical</td>
</tr>
<tr>
<td>ADE</td>
<td>Adult Education</td>
</tr>
<tr>
<td>ADV</td>
<td>Advertising</td>
</tr>
<tr>
<td>AFH</td>
<td>African History</td>
</tr>
<tr>
<td>AFR</td>
<td>Air Force ROTC</td>
</tr>
<tr>
<td>AMH</td>
<td>American History</td>
</tr>
<tr>
<td>AML</td>
<td>American Literature</td>
</tr>
<tr>
<td>ANT</td>
<td>Anthropology</td>
</tr>
<tr>
<td>APA</td>
<td>Applied Accounting</td>
</tr>
<tr>
<td>APB</td>
<td>Applied Biology</td>
</tr>
<tr>
<td>ARE</td>
<td>Art Education</td>
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<td>ARH</td>
<td>Art History</td>
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<tr>
<td>ART</td>
<td>Art</td>
</tr>
<tr>
<td>ASH</td>
<td>Asian History</td>
</tr>
<tr>
<td>AST</td>
<td>Astronomy</td>
</tr>
<tr>
<td>AVM</td>
<td>Aviation Management</td>
</tr>
<tr>
<td>BCH</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>BCN</td>
<td>Building Construction</td>
</tr>
<tr>
<td>BOT</td>
<td>Botany</td>
</tr>
<tr>
<td>BSC</td>
<td>Introductory Biology</td>
</tr>
<tr>
<td>BTE</td>
<td>Business Teacher Education</td>
</tr>
<tr>
<td>BUL</td>
<td>Business Law</td>
</tr>
<tr>
<td>CAP</td>
<td>Computer Applications</td>
</tr>
<tr>
<td>CBH</td>
<td>Comparative Psychology &amp; Animal Behavior</td>
</tr>
<tr>
<td>CCE</td>
<td>Civil Construction Engineering</td>
</tr>
<tr>
<td>CGJ</td>
<td>Criminology &amp; Criminal Justice</td>
</tr>
<tr>
<td>CDA</td>
<td>Computer Design/Architecture</td>
</tr>
<tr>
<td>CEG</td>
<td>Civil Geotechnical Structures</td>
</tr>
<tr>
<td>CES</td>
<td>Civil Engineering Structure</td>
</tr>
<tr>
<td>CET</td>
<td>Computer Engineering Technology</td>
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<tr>
<td>CGN</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>CGS</td>
<td>Computer General</td>
</tr>
<tr>
<td>CHI</td>
<td>Chinese</td>
</tr>
<tr>
<td>CHM</td>
<td>Chemistry</td>
</tr>
<tr>
<td>CHS</td>
<td>Chemistry — Specialized</td>
</tr>
<tr>
<td>CIS</td>
<td>Computer &amp; Information Systems</td>
</tr>
<tr>
<td>CJT</td>
<td>Criminal Justice Technology</td>
</tr>
<tr>
<td>CLA</td>
<td>Classical and Ancient Studies</td>
</tr>
<tr>
<td>CLP</td>
<td>Clinical Psychology</td>
</tr>
<tr>
<td>CCO</td>
<td>Computer Concepts</td>
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<tr>
<td>COE</td>
<td>Cooperative Education</td>
</tr>
<tr>
<td>COM</td>
<td>Communications</td>
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<td>COP</td>
<td>Computer Programming</td>
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<tr>
<td>COT</td>
<td>Computer Theory</td>
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<tr>
<td>CPO</td>
<td>Comparative Politics</td>
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<tr>
<td>CRM</td>
<td>Computer Resources/Management</td>
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<tr>
<td>CRW</td>
<td>Creative Writing</td>
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<tr>
<td>CWR</td>
<td>Civil Water Resources</td>
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<tr>
<td>CYP</td>
<td>Communication Psychology</td>
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<tr>
<td>DAA</td>
<td>Dance Activities</td>
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<td>DAE</td>
<td>Dance Education</td>
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<tr>
<td>DEP</td>
<td>Development Psychology</td>
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<tr>
<td>EAB</td>
<td>Experimental Analysis of Behavior</td>
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<tr>
<td>EAS</td>
<td>Engineering: Aerospace</td>
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<tr>
<td>ECM</td>
<td>Engineering: Computer Mathematics</td>
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<tr>
<td>ECO</td>
<td>Economics</td>
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<tr>
<td>ECP</td>
<td>Economic Problems &amp; Policy</td>
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<td>ECS</td>
<td>Economic Systems &amp; Policy</td>
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<tr>
<td>EDA</td>
<td>Education: Administration</td>
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<td>EDE</td>
<td>Education: Elementary</td>
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<tr>
<td>EDF</td>
<td>Education: Foundation</td>
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<td>EDG</td>
<td>Education: General</td>
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<tr>
<td>EDH</td>
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<tr>
<td>EDF</td>
<td>Education: Middle School</td>
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<td>EDP</td>
<td>Education: Psychology</td>
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<tr>
<td>EDS</td>
<td>Education: Supervision</td>
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<tr>
<td>EEC</td>
<td>Education: Early Childhood</td>
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<tr>
<td>EED</td>
<td>Education: Emotional Disorders</td>
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<tr>
<td>EEL</td>
<td>Engineering: Electrical</td>
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<td>EES</td>
<td>Environmental Engineering Science</td>
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<td>EET</td>
<td>Electrical Electronic Technology</td>
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<td>EEX</td>
<td>Education: Exceptional Child — Care Competencies</td>
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<tr>
<td>EGC</td>
<td>Guidance &amp; Counseling</td>
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<tr>
<td>EGM</td>
<td>Engineering: Mechanical</td>
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<td>EGN</td>
<td>Engineering: General</td>
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<td>EGS</td>
<td>Engineering: Support</td>
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<td>EIN</td>
<td>Engineering: Industrial</td>
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<td>ELD</td>
<td>Education: Specific Learning Disabilities</td>
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<td>EMA</td>
<td>Engineering: Materials</td>
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<td>EME</td>
<td>Education: Technology &amp; Media</td>
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<td>EML</td>
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<td>EMR</td>
<td>Education: Mental Retardation</td>
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<td>Education: Physical &amp; Multiple Handicapped</td>
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<td>ESE</td>
<td>Education: Secondary</td>
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<td>Engineering Systems — Industrial</td>
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<td>Electronic Specialty Technology</td>
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<td>EVT</td>
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<td>FOL</td>
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<td>FOT</td>
<td>Foreign &amp; Biblical Languages in Translation</td>
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<td>French Language</td>
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<td>FRW</td>
<td>French Literature (Writings)</td>
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<td>FSS</td>
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<td>Code</td>
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<td>GEA</td>
<td>Geography: Regional Areas</td>
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<td>Modern Hebrew Language</td>
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<td>HBT</td>
<td>Hebrew Language Translation</td>
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<td>HFT</td>
<td>Hotel and Restaurant</td>
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<td>HLP</td>
<td>Health Education</td>
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<td>HMW</td>
<td>Modern Hebrew Literature (Writings)</td>
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<td>HSA</td>
<td>Health Services Administration</td>
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<td>Health Science</td>
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<td>HUM</td>
<td>Humanities</td>
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<td>Human Nutrition</td>
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<td>Interdisciplinary Honors</td>
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<td>INP</td>
<td>Industrial &amp; Applied Psychology</td>
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<td>INR</td>
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<td>ISM</td>
<td>Information Systems Management</td>
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<td>ITW</td>
<td>Italian Literature (Writings)</td>
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<td>Judaic Studies</td>
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<td>LAE</td>
<td>Language Arts &amp; English Education</td>
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<td>LAH</td>
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<td>LIN</td>
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<td>MAA</td>
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<td>MAC</td>
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<td>MAE</td>
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<td>MAP</td>
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<td>MAR</td>
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<td>MET</td>
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<td>MGF</td>
<td>Mathematics: General &amp; Finite</td>
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<td>MHF</td>
<td>Mathematics: History &amp; Foundations</td>
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<td>MLS</td>
<td>Medical Laboratory Science</td>
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<td>MMC</td>
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<td>MRE</td>
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<td>MTG</td>
<td>Mathematics: Topology &amp; Geometry</td>
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<td>MUC</td>
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<td>MVW</td>
<td>Music: Applied — Woodwinds</td>
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<td>Physical Education Acts (GEN) — Perform Centr., Land</td>
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<td>Physical Education Acts (PROFNL) — Perf. Centr., Land</td>
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<td>PGY</td>
<td>Photography</td>
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<td>PHH</td>
<td>Philosophy, History of</td>
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<td>PHM</td>
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<td>PLA</td>
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<td>Psychobiology</td>
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<td>RAT</td>
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<td>School Psychology</td>
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<td>SPW</td>
<td>Spanish Literature (Writings)</td>
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</table>
SSE Social Studies Education
STA Statistics
STD Student Development
SUR Surveying
SYA Sociology Analysis
SYD Sociology of Demography and Area of Studies
SYG Sociology, General
SYO Sociology — Social Organizations
SYP Sociology — Social Processes

TAX Taxation
THE Theatre
TPA Theatre Production & Administration
TPP Theatre Performance & Performance Training
TTE Transportation & Traffic Engineering
URP Urban and Regional Planning
VIC Visual Communication
ZOO Zoology

COURSES NUMBERED 0-999
Depending upon previous background and test scores earned, individual students may be required to complete more than the minimum number of credits required for graduation in their respective programs. Courses numbered less than 1000 (Statewide Common Course Numbers) are subcollegiate level and may not be counted in meeting degree credit hour requirements for graduation.

SPECIAL COURSES
In addition to the regular courses listed in this catalog, special courses may be available. Consult your academic advisor for details.

Directed Independent Studies
Directed Independent Research
Special Topics/Seminars
*Internships, Practicums, Clinical Practice
Cooperative Education (COE) *
Honors Undergraduate Thesis

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<tr>
<th>Undergraduates</th>
<th>Special Grad</th>
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<td>3970 4970</td>
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</table>

*These courses may be assigned variable credit. Some may be repeated upon approval.
*The Special Graduate Courses are primarily for graduate students, but may be taken by advanced seniors with the consent of their deans.
*Enrollment is limited to those students who are fully admitted to the Graduate Program.
*Enrollment is limited to those students who are admitted into the co-op program.

PR: PREREQUISITE
A course in which credit must be earned prior to enrollment in the listed course.

CR: COREQUISITE
A course which must be taken concurrently with or prior to the listed course.

CI: CONSENT OF THE INSTRUCTOR

HOURS CODE
Each course listed is followed by a code which shows hours of credit and contact hours.
Example: ECI 5215C Hydraulic Engineering EN 3(2,3)
ECI 5215C is offered by the College of Engineering (EN), carries 3 hours of credit, but requires 5 contact hours which consist of 2 hours in class and 3 hours laboratory or field work.
AVAILABILITY OF COURSES

The University does not offer all of the courses listed in the catalog each year. The Class Schedule should be consulted for those courses offered each semester.

ACG 2021

ACG 2023
Principles of Accounting I and II: PR: Junior standing and MAC 1104 or equivalent. Same as 2021, 2071. Credits may not be earned in both ACG 2023 and the ACG 2021, 2071 sequence.

ACG 2071
Principles of Managerial Accounting: PR ACG 2021 and MAC 1104 or equivalent. The purpose of this class is to thoroughly familiarize the student with the various uses of accounting information for planning and control.

ACG 3101
Intermediate Financial Accounting I: PR: Junior standing and MAC 1104, ECO 2013 and ECO 2023; and ACG 2071 or ACG 2023 or its equivalent with a grade of "C" in the accounting course. Review of the accounting cycle, financial statement preparation and the framework of accounting theory. An in-depth study of current assets, fixed assets, and intangible assets.

ACG 3111
Intermediate Financial Accounting II: PR: ACG 3101 with a grade of "C" or better. Accounting theory and practice for current and long-term liabilities, stockholders' equity earning per share, investments, revenue recognition, and selected current topics.

ACG 3113
Financial Accounting II: PR: ACG 3103 with a grade of "C" or better. A continuation of ACG 3103.

ACG 3301
Management Accounting: PR: C.I. and Junior standing. To thoroughly familiarize the student with the various uses of accounting information for planning and control.

ACG 3361
Cost Accounting I: PR: Junior standing, MAC 1104, ECO 2013, and ECO 2023, and ACG 2071 with a grade of "C" in ACG 2071, completion of or concurrent enrollment in ACG 3101. Cost concepts, cost of goods manufactured, job order costing, process costing, standard costing, relevant cost analysis, and overhead/joint cost allocations.

ACG 3363
Cost Accounting II: PR: ACG 3101, MAC 1104, and concurrent enrollment in ACG 3103. Cost concepts, cost of goods manufactured, job order costing, process costing, standard costing, relevant cost analysis, and overhead/joint cost allocations.

ACG 3501
Financial Accounting for Governmental and Nonprofit Organizations: PR: ACG 3101 with a grade of "C" or better, or C.I. Accounting for governments and other nonprofit organizations, with emphasis on financial reporting issues and problems.

ACG 4203
Advanced Accounting: PR: Intermediate Financial Accounting II with a grade of "C" or better. Accounting for business combinations and the preparation of consolidated financial statements. Accounting issues related to foreign operations. Also includes a study of current reporting topics.

ACG 4401
Accounting Information Systems I: PR: ACG 3101 and CGS 3000, with a grade of "C" or better. An introduction to manual and computer-based accounting information systems.

ACG 4651
Auditing: PR: ACG 3111 and ACG 4401 with a grade of "C" or better. The standards, practices, and procedures followed in the audit function.

ACG 5005
Financial Accounting Concepts: PR: Acceptance into the graduate program. (Not open for Accounting majors.) The conceptual background for financial statements.

ACG 5206

ACG 5255
International and Multinational Accounting: PR: ACG 3111 or C.I. and meet graduate school admission requirements. An examination of the environmental factors affecting international accounting concepts and standards. Cross-country differences in accounting treatments are compared.

ACG 5346
Cost Accounting II: PR: ACG 3361, ACG 3111, FIN 3403, ECO 3411 or C.I. and meet graduate school admission requirements. Overhead allocation, capital budgeting and analysis. EOQ analysis, decentralization, and quantitative decision analysis.
ACG 5506 BA 3(3,0)
Accounting for Governmental and Nonbusiness Organizations: PR: ACG 3111 and meet Graduate School admission requirements. (Not open to students with credit for ACG 3501 or equivalent)

ACG 5625 BA 3(3,0)
Auditing and EDP: PR: ACG 4401, ACG 3111, ACG 4651 and meet school admission standards. An examination of auditing procedures followed when a company uses a computer to process financial records.

ACG 5636 BA 3(3,0)
Advanced Auditing: PR: ACG 4401, ACG 3111, ACG 4651 and meet Graduate school admission requirements. Special topics relative to the standards, practices, and procedures followed in the audit function.

ACG 5675 BA 3(3,0)
Operational Auditing: PR: ACG 4123, ACG 3111 and meet Graduate school admission requirements. The standards, principles, practices, and procedures followed in the internal audit function.

ADE 4382 ED 3(3,0)
Teaching Adult Learners: Effective teaching techniques including technology, distance instruction, and support systems appropriate to the special needs of adult learners.

ADV 4000 AS 3(3,0)
Principles of Advertising: Overview of the field of advertising; purposes, techniques, the role of agencies, advertisers and the media.

ADV 4003 AS 3(3,0)
Advertising Layout and Preparation: PR: ADV 4000 or C.I. Advertising design and layout for print media; reproduction methods and requirements; art background not required.

ADV 4101 AS 3(3,0)

ADV 4103 AS 3(3,0)
Radio-Television Advertising: PR: ADV 4000 or C.I. Radio and television advertising sales, including interpretation of rate structures, program audiences, and creative approaches to sponsor needs.

AFR 1101 EN 1(1,2)

AFR 1111 EN 1(1,2)

AFR 2130 EN 1(1,2)
The Development of Airpower I: A study of the development of airpower from experiments by 18th-century balloonists to the achievement of combat airpower capabilities during World War II.

AFR 2131 EN 1(1,2)
The Development of Airpower II: A study of the development of aerospace capabilities since World War II, highlighting technological advancements and the role of aerospace power in the contemporary world.

AFR 3220 EN 3(3,2)
Air Force Leadership and Management I: An introductory study of Air Force management fundamentals, communications skills, and basic leadership styles.

AFR 3230 EN 3(3,2)
Air Force Evaluation and Management II: A concluding study of Air Force management fundamentals, including performance evaluation skills.

AFR 4201 EN 3(3,2)

AFR 4210 EN 3(3,2)

AMH 2010 AS 3(3,0)

AMH 2020 AS 3(3,0)

AMH 2020H AS 3(3,0)
Honors U.S. History: 1877-Present: PR: AMH 2010 or C.I. Same as AMH 2020 with honors-level content.
AMH 3370
American Economic History: PR: AMH 2010 and 2020 or C.I. An introduction to the economic development of the U.S., with emphasis on agriculture, labor, industrialization, transportation, and banking.

AMH 3402
History of the South to 1865: PR: AMH 2010 or 2020 or C.I. Development of the southern colonies, beginning sectionalism, the cotton economy, and slavery. Calhoun's constitutional theories, secession, Civil War and its aftermath.

AMH 3403
History of the South Since 1865: PR: AMH 2010 or 2020 or C.I. Reconstruction, the "solid South" and the racial dilemma, progressivism for whites only, southern literature, 20th-century economic, political and social changes, and the new Reconstruction.

AMH 3421
History of Florida to 1845: PR: AMH 2010 and 2020 or C.I.

AMH 3423
Florida History 1845-Present: PR: AMH 2010 and 2020 or C.I.

AMH 3441
History of the Frontier: Eastern America: PR: AMH 2010 and 2020 or C.I. The progression of the westward movement from the colonial settlements to the Mississippi, considered as an interpretive approach to American history.

AMH 3442
History of the Frontier: Western America: PR: AMH 2010 and 2020 or C.I. The development of the trans-Mississippi West and its impact upon American history.

AMH 3540
Military History: A survey of U.S. military history from the European background of the colonial period through the contemporary military experience.

AMH 3560
Women in American History: Women in colonial America, "republican" motherhood, "separate spheres," suffrage battle, entry into paid labor force, new educational and professional opportunities, changing family pattern, "new" feminism.

AMH 3570
Black American History: PR: AMH 2010 and 2020 or C.I. History of Negroes from their African heritage through American slavery to freedom and their role in the 20th-century America.

AMH 3586
History of the Hispanic Minorities in the U.S.: Course begins with 16th century through the modern period. Special emphasis on Chicanos, Puerto Ricans, and Cubans.

AMH 3610
Sport in America: History of sport from colonial times to present. Emphasis on social and economic development, intercollegiate and professional sport, and changing attitudes toward work, sport, and play.

AMH 3800
Canadian History: Canada since Colonial times and the present, but with emphasis on the period since the British North America Act, 1867.

AMH 4110
Colonial America, 1607-1763: PR: AMH 2010 and 2020 or C.I. The voyages of discovery, the origins of the thirteen colonies, and their political, economic, social, and religious life in the 17th and 18th centuries.

AMH 4130
The Age of the American Revolution, 1763-1789: PR: AMH 2010 and 2020 or C.I. The American Revolution - its origins, course, and impact upon American society - the Articles of Confederation, the Philadelphia Convention and its work.

AMH 4140
Jacksonian America: PR: AMH 2010 and 2020 or C.I. The Confederation era, the Federalists, Jeffersonian Democracy, and the War of 1812.

AMH 4160
Jacksonian America: PR: AMH 2010 and 2020 or C.I. The risk of American nationalism, Jacksonian Democracy, the Mexican War, and sectional conflict.

AMH 4170
Civil War and Reconstruction: PR: AMH 2010 and 2020 or C.I. Reconstruction, and impact of industrialism.

AMH 4201
The Gilded Age of Progressivism: PR: AMH 2010 and 2020 or C.I. The Rise of Industrialized and Urbanized America, The emergence of the New South and the New West, the Populist Movement, overseas expansion, Progressivism.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMH 4231</td>
<td>United States History: 1914-1945: PR: AMH 2010 and 2020 or C.I. The progressive Reforms of Woodrow Wilson, World War I, post-war prosperity, the Depression, and the New Deal; World War II.</td>
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<tr>
<td>AMH 4270</td>
<td>United States History: 1945-Present: PR: AMH 2010 and 2020 or C.I. Contemporary America from World War II.</td>
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<td>AMH 4311</td>
<td>American Culture I: PR: AMH 2010 and 2020 or C.I. The European Backgrounds: Puritanism; Enlightenment; the Great Awakening; Revolutionary Thought: Romanticism; the Southern Mind and the Yankee Response; Popular Culture and the rise of recreation.</td>
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<tr>
<td>AMH 4313</td>
<td>American Culture II: PR: AMH 2010 and 2020 or C.I. The Darwinian Revolution; revolt of the intellectuals; the media explosion; mass entertainment in mass culture; the loss of community, the nuclear age, and presentism.</td>
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<tr>
<td>AMH 4511</td>
<td>United States as a Great Power: 1914-Present: PR: AMH 2010 and 2020 or C.I. American foreign policy in World War I, the interwar period, World War II, and the Cold War.</td>
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<td>AMH 5116</td>
<td>Colloquium in U.S. Colonial History: PR: Senior Standing or C.I. Reading and discussion of the literature on selected topics in U.S. history.</td>
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<td>AMH 5137</td>
<td>Colloquium in U.S. Revolutionary Period: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics in the Revolutionary Era, 1763-1789.</td>
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<td>AMH 5149</td>
<td>Colloquium in Early U.S. Hist., 1789-1815: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics of the early national period.</td>
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<td>AMH 5159</td>
<td>Colloquium Age of Jackson: PR: Senior Standing or C.I. Intensive reading and class discussion on selected topics of the Jacksonian age.</td>
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<td>AMH 5176</td>
<td>Colloquium in Civil War and Reconstruction: PR: Senior Standing or C.I. Intensive reading and class discussion on selected topics of the Civil War and Reconstruction era.</td>
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<td>AMH 5219</td>
<td>Colloquium in Late 19th Century U.S.: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics of late 19th-century U.S.</td>
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<td>AMH 5296</td>
<td>Colloquium in 20th Century U.S.: PR: Senior Standing or C.I. Reading and class discussion on selected topics in 20th-century U.S.</td>
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<td>AMH 5391</td>
<td>Colloquium in U.S. Cultural History: PR: Senior Standing or C.I. Students will read and discuss a common or diverse body of the significant literature in the field.</td>
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<td>AMH 5407</td>
<td>Colloquium in American South: PR: Senior Standing or C.I. Intensive reading and class discussion on selected topics of Southern history from colonial origins to the present.</td>
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<td>AMH 5446</td>
<td>Colloquium in U.S. Frontier: PR: Senior Standing or C.I. Reading and class discussion of the literature on selected topics of frontier history.</td>
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<td>AMH 5515</td>
<td>Colloquium in U.S. Diplomatic History: PR: Senior Standing or C.I. A survey of the historical literature of American foreign policy.</td>
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<td>AMH 5566</td>
<td>Colloquium: Women in American History: Intensive reading and class discussion on selected topics of Women in American History from colonial time to the present.</td>
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<td>AML 3031</td>
<td>American Literature I: PR: ENC 1102. Major American writers from beginning through Whitman.</td>
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<td>AML 3051</td>
<td>American Literature II: PR: ENC 1102. Major American writers from Twain to present.</td>
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<td>Course Code</td>
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<td>ANT 3363</td>
<td>Anthropology of Japan: An examination of Japanese culture and its contemporary behavioral and organizational patterns by drawing upon archaeology, cultural history, linguistics, cultural anthropology, and social organization.</td>
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<tr>
<td>ANT 3410</td>
<td>Cultural Anthropology (Anthropology II): An introduction to human diversity as exemplified among various cultures and ethnic groups.</td>
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<td>ANT 3511</td>
<td>The Human Species: Human biological variation in an evolutionary perspective.</td>
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<td>ANT 3541</td>
<td>Biobehavioral Anthropology: An introduction to the study of human behavior in terms of mutual interaction between human biology and cultural environments.</td>
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<tr>
<td>ANT 3610</td>
<td>Language and Culture: PR: Sophomore standing: The study of language in a non-western setting; language and behavior; language and perception.</td>
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<tr>
<td>ANT 4084</td>
<td>Anthropological Method and Theory: Method, theory, research design and field techniques in the anthropological endeavor.</td>
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<tr>
<td>ANT 4124</td>
<td>Advanced Archaeological Fieldwork: Supervised archaeological fieldwork. Students admitted only with permission of instructor.</td>
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<tr>
<td>ANT 4180</td>
<td>Seminar in Laboratory Analysis: The processing of archaeological finds from excavation through publication.</td>
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<tr>
<td>APA 3471</td>
<td>Accounting for Engineers: General Accounting principles and practice, cost accounting, budgeting, and control techniques. Not usable for BSBA degree credit.</td>
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<tr>
<td>APB 3600</td>
<td>Introduction to Pharmacology: Review of terminology and regulations. Study of drug types and usage.</td>
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<tr>
<td>APB 4651</td>
<td>Medical Pharmacology I: Drugs in pulmonary diseases; effects on nervous system, and neuroeffectors, depressants &amp; stimulants; influence on metabolism and endocrines. (MDRV) Bronchodilators, mycolytics, etc.</td>
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<tr>
<td>APB 4652</td>
<td>Medical Pharmacology II: PR: APB 4651 or C.I. Drugs used in cardiovascular disorders. Includes inotropic, chronotropic agents, beta blocker drugs, calcium channel antagonists.</td>
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<tr>
<td>ARE 3550</td>
<td>Introductory to Art Therapy: A survey of the literature, theories and practices of art therapy.</td>
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<td>ARE 3554</td>
<td>Art Therapy Methods: This course presents methodologies used by the Art Therapists and demonstrates how Art Therapy is put into practice.</td>
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<tr>
<td>ARE 3662</td>
<td>Community Arts I: A survey of the basic theoretical issues related to community arts programming.</td>
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<tr>
<td>ARE 3663</td>
<td>Community Arts II: A survey of the basic methodologies for applying the theoretical issues to community arts programming taught in Community Arts I.</td>
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<tr>
<td>ARE 3944</td>
<td>Community Arts Practicum: A supervised experience for students to facilitate art programming in a variety of community settings.</td>
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<tr>
<td>ARE 4262</td>
<td>Methods in Art Administration: PH: ARH 3820. Theories and methodologies for designing, implementing and administering art programs for a variety of populations.</td>
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<tr>
<td>ARE 4313</td>
<td>Teaching Art in the Elementary School: PR: EDF 4214 and EDG 4321. Transition from university art studio practices to public school teaching of art. Organizing, designing and analyzing art experiences, activities and classroom environments for the elementary school classroom.</td>
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ART 4352  ED 3(2,1)
Teaching Art in the Secondary School: PR: ARE 4143, EDF 4214, and EDG 4321. Transition from university art studio practices to High School Teaching of art. Organizing, designing and analyzing art experiences and activities appropriate for junior high and high school children. Examination of teaching methodology relative to the high school and junior high school settings.

ARE 4356  ED 3(3,1)
Teaching Art Appreciation & Criticism in the Classroom: PR: ARH 2050 and ARH 2051. An examination of art appreciation programs and concepts toward planning curriculum for the study of art history, popular art, art criticism, and aesthetics for specific educational settings.

ARE 4945  AS 12(0,12)
Community Arts Internship: An on-site in-depth experience for community arts majors with a concentration in administration, education, or therapeutic experience.

ARE 5251  ED 3(2,1)
Art for Exceptionalities: Concepts, principles, and methods of integrating art processes into the education of the physically, emotionally, and mentally handicapped.

ARE 5255  ED 3(2,1)
Arts in Recreation: Art activities and experiences appropriate for use in playground, leisure services, occupational orientation and other recreational areas.

ARE 5454  ED 3(3,0)
Found Arts: PR: C.I. Materials available for instruction in the public schools will be explored in depth in relation to their appropriateness and productive qualities.

ARE 5648  ED 3(3,0)
Contemporary Visual Arts Education: PR: C.I. Continued study of current programs and innovations in public school Visual Arts Programs.

ARH 2050  AS 3(3,0)
The History of Art I: Painting, sculpture and architecture from the Prehistoric Era through the Renaissance period.

ARH 2051  AS 3(3,0)
The History of Art II: Painting, sculpture and architecture from the Baroque through the 20th century.

ARH 2051H  AS 3(3,0)
Honors History of Art II: Same as ARH 2051 with honors-level content.

ARH 3060  AS 3(3,0)
History of Architecture: History of Architecture — Survey of Western architectural styles.

ARH 3520  AS 3(3,0)
African Art: Teach the continuatives between African, Afro-Caribbean and Afro-American Arts.

ARH 3530  AS 3(3,0)
Asian Art: History of visual arts of China, Japan, India, and other Eastern cultures.

ARH 3683  AS 3(3,0)
Southern Folk Arts: History of Folk Architecture, Ceramics, Painting, Sculpture, Textiles and Toys in three main Southern ethnic cultures: EuroAmerican, Afro-American, and American Indian.

ARH 3710  AS 3(3,0)
History of Photography I: History of still photography from its earliest inception to 1900. The content of this course is designed for art majors.

ARH 3711  AS 3(3,0)
History of Photography II: History of still photography from the early 20th century to the present. The content of this course is designed for art majors.

ARH 3720  AS 3(3,0)
History of Prints: History of printmaking in the Western world, surveying works by the "great printmakers."

ARH 3726  AS 3(3,0)
American Art: Surveys American Art to 1900. Leading artists are identified and representative examples of their work are discussed within the context of major themes, patterns, sources.

ARH 3802  AS 3(3,0)
Happenings Art: To study the aesthetic and social significance of "Total Art" in its attempt to break down the customary distinctions between life and art.

ARH 3820  AS 3(3,0)
Visual Arts Administration: Vitas: grant applications; Personnel; copyright laws; museum practices, etc.

ARH 4170  AS 3(3,0)
Greek & Roman Art: A study of the art and architecture of the ancient civilizations of the Mediterranean, comprising Greece, Eturia, and Rome.

ARH 4310  AS 3(3,0)
Early Italian Renaissance Art: A survey of Italian Art and Architecture from 1300 to 1500.
ARH 4312
Later Italian Renaissance Art: A survey of Art in Italy, from the High Renaissance through Mannerism.

ARH 4350
Baroque Art: A study of European Art in the 17th and 18th centuries.

ARH 4430
19th Century Art: A survey of the trends and developments in art during the 19th century, including the art of America and of Western Europe.

ARH 4450
20th Century Art: PR: ARH 2051. A survey of the art from Fauvism, Futurism, Cubism to the art of the present.

ARH 4545
Art of India: Art and architecture of India from prehistoric times through the Gupta, Rajput, and Muslim periods.

ARH 4655
Women and Art in the 20th Century America: A course on women artists, feminist aesthetics, and women's artistic cultures, focusing on 20th century America.

ARH 4690
Mexican Art — Fieldwork: A field trip in connection with ARH 4655.

ARH 4800

ARH 4892
Women in Art: A survey of women artists from ancient times to the present as well as a study of the role aesthetics and ideology have played in determining the ways in which women have been represented in art.

ARH 5451
Artistic Worldviews: PR: Post-Bac. status, 9 hours of art courses, or C.I. Art from individuals and cultural perspectives of varying ethnic, religious, occupational, regional, and generational groups.

ARH 5478
Contemporary Women Artists: PR: 6 credits of art courses or C.I. An in-depth study on contemporary women artists from a feminist perspective.

ART 2201
Design Fundamentals I: Materials, processes, form. Emphasis on two-dimensional design problems, including problems in black and white and basic color theory.

ART 2203
Design Fundamentals II: Continuation of color theory and basic three-dimensional design using the various sculptural media.

ART 2300
Drawing Fundamentals I: Drawing as a means of formal organization. Introduction to problems in drawing methods and media. Emphasis on description techniques.

ART 2301
Drawing Fundamentals II: Continuation of ART 2300C.

ART 2600
Introduction to Computer Graphics: The principles underlying the generation and display of graphical pictures by computer. Topics include graphical software packages and graphics systems.

ART 311C
Ceramics: Basic concepts of ceramic design, experience in processes of forming, decorating, glazing, and firing pottery.

ART 3133
Fibers & Fabrics: Design and production training in surface design, floor loom weaving and fiber sculpture.
ART 3204C

ART 3220C

ART 3232C
Graphic Design II: PR: ART 3239C or C.I. Methods, materials, and processes related to perceptual studies in graphic design.

ART 3239C

ART 3281C
Type & Design: A survey of type, calligraphy and letter forms and their appropriate use as subject matter for graphic design and publication.

ART 3330C
Intermediate Drawing I: PR: Six semester hours of Drawing Fundamentals or C.I. Intermediate problems in drawing, with emphasis on the human form.

ART 3331C
Intermediate Drawing II: PR: C.I. Continuation of Intermediate Drawing I.

ART 3400C
Printmaking: PR: ART 2201C, 2202C, and three semester hours of Drawing Fundamentals or C.I.

ART 3510C
Painting: PR: Three semester hours in Design Fundamentals and three semester hours in Drawing Fundamentals or C.I. Concentration of basic techniques and aesthetic factors in painting.

ART 3810C

ART 3701C
Sculpture: PR: Six semester hours in Design Fundamentals, to include three semester hours in three-dimensional work, or C.I.

ART 4111C
Advanced Ceramics: PR: ART 3110C. May be repeated for credit.

ART 4130C
Fibers, Fabrics, Textiles and Synthetics: Textile design and production, including non-loom weaving processes. May be repeated for credit.

ART 4138C
Advanced Fiber & Fabrics: Textile design and production, including non-loom weaving processes. May be repeated for credit.

ART 4198C

ART 4235C
Advanced Graphic Design: PR: ART 3239C, ART 3232C, or C.I. Practical studio problems, with emphasis on organization of visual design elements.

ART 4237C
Special Problems in Graphic Design: PR: ART 3232C or C.I. Advanced problems in visual design and reproduction. May be repeated for credit.

ART 4320C
Advanced Drawing: PR: ART 3331C. May be repeated for credit.

ART 4402C
Advanced Printmaking: PR: ART 3400C. May be repeated for credit.

ART 4483C

ART 4530C
Advanced Painting: PR: ART 3510C. May be repeated for credit.

ART 4703C
Advanced Sculpture: PR: ART 3701C. May be repeated for credit.

ART 5109C
Multi-Cultural Crafts Design: The content of this course will include an appreciation for and the production of Western and Non-Western art forms.
ASH 4404 AS 3(3,0)
China in 19th and 20th Centuries: PR: EUH 2000 and 2001 or C.I. The Mongols in China; coming of the Europeans; social structure; Communist movement; Japanese aggression.

ASH 4442 AS 3(3,0)
Modern Japan, 19th and 20th Centuries: PR: EUH 2000 and 2001 or C.I. A survey of the Tokugawa Shogunate; Western contact in the 19th century; World War I; Japanese militarism; World War II; and U.S. occupation.

AST 2002 AS 3(3,0)
Astronomy: Descriptive survey of solar system, galaxies and universe; physical properties of stars, H-R diagram, stellar evolution, black holes, neutron stars.

AVM 4510 BA 3(3,0)
Aeronautics: Descriptive survey of aircraft, engines, flight control systems, industries and applications.


BCH 4053 AS 3(3,0)
Biochemical Methods: PR: BCH 4053. A laboratory course stressing the application of the chemical arts to the separation, identification, and quantification of materials of biological significance.

BCH 4054 AS 3(3,0)
Biochemical II: PR: BCH 4053. Continuation of BCH 4053.

BCH 4103L AS 2(0,6)
Biochemical Methods: PR: BCH 4053. A survey of the Tokugawa Shogunate; Western contact in the 19th century; World War I; Japanese militarism; World War II; and U.S. occupation.

Plant Science: Plant life related to biological principles and the physical and cultural impact of plants on human individuals and civilization. Designed for non-majors.

BOT 1000C AS 4(3,2)
General Botany: PR: High school biology or C.I. Introduction to botany; plant structure and function, with emphasis on forms and applications important to man and science. Open only to students whose major requires this course.

BOT 2010C AS 4(2,4)
Local Flora: PR: BOT 2010C or C.I. Recognition and identification of Florida higher plants, especially those common to central Florida, stressing environmental and ethnobotanical significance. Weekend field trips may be required.


Ethnobotany: PR: C.I. Historical and modern uses of plants economically important in various cultures. Designed for majors and non-majors.

PLANTS and the Urban Environment: PR: C.I. The selection, placement, propagation and care of ornamental plants in residential and industrial areas. Designed for majors and non-majors.

Plant Anatomy: PR: BOT 2010C. A study of development, structure and function of the principal organs and tissue of vascular plants.

Plant Kingdom: PR: BOT 2010C. A survey of the plant kingdom utilizing comparative morphology, structure and functions to demonstrate relationships among extant and extinct forms.

Plant Physiology: PR: PCB 3023 or C.I. A study of mechanisms used by plants to copy with the environment.

BOT 4223C AS 4(3,3)
Plant Geography and Ecology: PR: 8 hours Botany or C.I. The major climatic plant formations of the world, historical and contemporary plant geography, and ecology.

BOT 4713C AS 5(3,6)
Plant Taxonomy: PR: BOT 2010C. An introduction to systematic classification and identification of vascular plants, with emphasis on the flora of peninsular Florida.

Bryology: PR: BOT 4303C or C.I. A lecture-laboratory survey course on the diversity and classification of mosses, liverworts, and hornworts, with special emphasis on those found in Florida.
CCE 5035
Construction Law and Project Management: PR: C.I. Contracts, specifications, and law for engineers. Strategic planning, management, development, design and production of construction projects. Value engineering, project funding and cash flow.

CCJ 3010
Crime in America: A survey of crime and criminality in the United States, with emphasis on crime data, its weaknesses, and types of criminal behavior.

CCJ 3020
Criminal Justice System: An examination of the components and of their interdependence in light of their traditional autonomy.

CCJ 3210
Criminal Law in Action: Basic concepts of criminal law: elements of major crimes, criminal responsibility, defenses, and parties to crime.

CCJ 3290
Prosecution and Adjudication: PR: CCJ 3020 or PLA 3013 or C.I. Examination of structures and goals of offices and prosecution and criminal trial courts, and of the processes of charging, adjudicating, and sentencing defendants.

CCJ 3300
The Corrections and Penology: PR: CCJ 3020 or C.I. Theories, structures, and methods of institutional and non-institutional processing and treatment of convicted criminals and juvenile offenders.

CCJ 3341
Community-Based Corrections: PR: CCJ 3020 and CCJ 3300 or C.I. An overview and analysis of correction interventions and treatment programs in the community.

CCJ 3451
Justice System Technology: PR: CCJ 3020 or C.I. Examination of the relevance of scientific and technological developments to justice systems and their applicability to the operations and management of the systems.

CCJ 3452
The Criminal Justice Manager: PR: CCJ 3020 or C.I. Elements of first-line supervision and executive development. Administrative leadership: its nature; methods, and traits. Recent theories and research in leadership.

CCJ 3483
Labor Relations in Criminal Justice; PR: CCJ 3020 and CCJ 3452 or C.I. Examine the role of public sector labor relations in criminal justice to include management-employee relationships, collective bargaining process, employee organizations, and federal-state laws.

CCJ 4105
Police and Society: PR: CCJ 3020. An examination of the varied roles of police in contemporary society. Emphasis is on dynamics of police/citizen interactions and the police subculture.

CCJ 4459
Justice Agency Operations: PR: CCJ 3020 and CCJ 3452 or C.I. Elements, functions, and processes essential to the continuing management of various criminal justice agencies, institutions and court systems.

CCJ 4466
Criminal Justice Ethics: Focuses on the ethical issues and problems commonly encountered in the criminal justice system (policy courts and corrections).

CCJ 4540
Delinquency Control: PR: CCJ 3020 and CCJ 3290 or C.I. Examination of programs and institutions including juvenile court process, intake services, and remedial procedures and practices.

CCJ 4630
Comparative Justice Systems: PR: CCJ 3020 and CCJ 3290 or C.I. A survey of contemporary foreign criminal justice and differences emerging from various political, cultural and legal systems.

CCJ 4640
Organized Crime: An examination of organized crime, including structures, history and activities, and of issues surrounding efforts to define and control it.

CCJ 4651
Drugs and Crime: Focuses on the problems of drugs and drug control in contemporary society. Students will examine the problems of drugs in our society as well as specific strategies used by criminal justice agencies to prevent and control illicit drug use.

CCJ 4661
Terrorism: PR: CCJ 3020 and CCJ 4105 or C.I. An examination of competing ideologies of a variety of social and political conflicts (both international and domestic) that give rise to terrorism and of the implications for the criminal justice system.
CCJ 4670
Women and Crime: This course covers women in criminal justice as offenders and prisoners, as well as crime victims and professionals working in the system.

CCJ 4791
Research Methods in Criminal Justice: Overview of the social science research methodology used in criminal justice, covers the major forms of research designs used by social science and evaluates their strengths and weaknesses.

CCJ 4941
Criminal Justice Internship: PR: C.I. Internship in municipal, county, state or federal criminal justice agency. Includes assignments in police, courts, corrections components.

CCJ 5406
Research and Technology Implementation: Changing roles of social and physical sciences as related to the objectives and administration of public safety agencies.

CCJ 5465
Financial and Planning for Public Safety: Acquisition, control, and management of resources for criminal justice and public safety agencies; organization of finance systems, planning mechanisms and strategies for the budgetary process.

CCJ 5467
Justice and Safety System Manpower: Processes essentials to administration to human resources in criminal justice and public safety agencies; structure and processes for acquisition, training, and maintenance of personnel.

CCJ 5485
Issues in Justice Policy: Examination of selected issues of public policy regarding the functions and roles of criminal justice agencies vis-a-vis other government departments or agencies and public purposes.

CDA 3100
Introduction to Computer System Architectures: PR: CGS 1060 or equivalent. System architecture, CPU organization and instruction execution, CISC and RISC architectures, memory systems, and graphics.

CDA 3500
Introduction to Data Communications: PR: CDA 3100. I/O processing; DMA, interrupts, asynchronous and synchronous data communications, serial communication standards, modems, and protocols.

CDA 3504

CDA 4131
Programming for Large Scale Digital Systems: PR: Computer Science Major or C.I. and COP 3402C. Programming techniques and instruction sets for large scale digital computers.

CDA 4150
Introduction to Computer Architecture: PR: Computer Science Major or C.I. and COP 3402C and EEL 3341 C. Survey of machine instructions, processor characteristics, and microprogramming concepts.

CDA 4300
Microprocessor Fundamentals: PR: Computer Science Major or C.I., COP 3402C and EEL 3341C. Semiconductor Technology, 8-bit and 16-bit Microprocessor Architectures and programming, memory system design, I/O methods, interrupts, development system concepts.

CDA 4311
Microprocessor Application: PR: Computer Science Major or C.I. and CDA 4300. Total system design methodology and applications, advanced topics on microprocessors, patent search and applications.

CDA 4312
Microprocessor Interface: PR: Computer Science Major or C.I. and CDA 4300. Interfacing of CPU to various devices, CPU support devices, peripheral devices and controllers, BUS concepts and standards, single chip computers.

CDA 5106
Advanced Computer Architecture I: PR: CDA 4150. Evolution of computer architecture; memory organization; cache; virtual memory; highspeed processor design; pipeline multi-functional and array machines; special architecture case studies; overview of channel architecture.

CDA 5110
Parallel Architecture & Algorithms: PR: COT 4210, CDA 5106. General-purpose vs. special-purpose parallel computers; arrays, message-passing; shared-memory; Taxonomy; parallization techniques; communication synchronization and granularity; parallel data structures; automatic program restructuring.

CDA 5215
Architecture and Design of VLSI Systems: PR: CDA 4150 or equivalent. Overview of VLSI technology. Stick diagrams; logical design of basic subsystems; integrated system design tools; design of a VLSI computer system.
CDA 5212  AS 3(3,0)
VLSI Design Tools: PR: CDA 5210, a strong programming background and C.I. VLSI implementation systems; layout languages; graphic tools; sticks compactor; design rule checking algorithms; simulation models; routing algorithms; silicon compilers; knowledge-based VLSI tools.

CDA 5213  AS 3(3,0)
VLSI Testing and System Integration: PR: CDA 5210. Test vectors; fault models; design for testability; LSSD; languages for testing; performance measurements; interrupts, BUS concepts and standards; testing and systems integration.

CEG 3301  EN 3(3,0)
Engineering and Environmental Geology: PR: EGN 3310 and CHS 1440 or equivalent. Principles of physical geology, with emphasis on engineering and environmental topics. Study of land forms, geologic maps, geologic structure, weathering, groundwater, mass wasting, and earthquakes.

CEG 4101C  EN 4(3,2)

CEG 4805C  EN 2(1,2)
Geotechnical Engineering Design: PR: CEG 4101C and CEG 5015. Project course on design of foundations and other soil structures using geotechnical design methodologies.

CEG 4812  EN 1(1,0)
Historical Developments in Civil Engineering: Seminar covering major historical developments in civil engineering.

CEG 5015  EN 3(3,0)
Geotechnical Engineering II: PR: CEG 4101C. Continuation of CEG 4101C with emphasis on shear strength and design factors for earth pressures bearing capacity, and slope stability.

CEN 5016  AS 3(3,0)
Software Engineering: PR: COP 4020 and knowledge of Ada. Introduction to the design and implementation of software systems. Emphasis is placed on object-oriented methodologies using Ada with application to real-time systems design. A project is required.

CES 4100  EN 3(3,0)
Structural Analysis I: PR: EGN 3331. Topics in structural mechanics, energy methods, analysis of determinate and indeterminate structures by flexibility, stiffness and methods.

CES 4101  EN 3(3,0)
Structural Analysis II: PR: CES 4102. Special structures; introduction to matrix structural analysis, dynamic loads including wind and earthquake.

CES 4103L  EN 1(0,3)
Structures Laboratory: PR: EGN 3331; CR: CES 4102. Laboratory exercises on the behavior of structures and structural materials.

CES 4605  EN 3(3,0)
Structural Steel Design: PR: CES 4102 or C.I. Design of steel structural members. Selected topics in beam design, column design, plastic design, connections and built-up members.

CES 4608C  EN 2(1,2)
Steel Design: PR: CES 4605. Project course on design of steel structures using steel and structural analysis methodologies.

CES 4702  EN 3(3,0)
Structural Concrete Design: PR: CES 4102 or C.I. Principles of designing reinforced concrete members. Selected topics in concrete mixes, beams, columns, and ultimate analysis.

CES 4709C  EN 2(1,2)
Concrete Design: PR: CES 4702. Project course on design of concrete structures using concrete and structural analysis methodologies.

CES 5143  EN 3(3,0)
Matrix Structural Analysis: PR: CES 4102 or equivalent. Optimization and matrix methods applied to the design of real structures.

CET 3123C  EN 3(2,3)
Microprocessor Electronics I: PR: EET 3035C. Introduction to microprocessors. Includes machine language programming, an introduction to microprocessor-based system architecture, and binary and hexadecimal arithmetic.

CET 3144C  EN 3(2,2)
Applied Microprocessor Technology: PR: CET 3198C and CET 3303. DC Circuit Analysis and Microprocessor Fundamentals. Analysis and design of the components, architecture, and interfacing of a microcomputer. Specific reference to IBM compatible microcomputers and peripherals. Troubleshooting and repair are emphasized in the laboratory.
CET 3198C  

CET 3303  
Microcomputer Technology I: PR: CET 3123C and a high-level programming language. Microcomputer assembly programming, including overview of architecture and operating system environment.

CET 3323C  
Computer Organization Technology: PR: EET 3035C. Digital logic gates, memory devices, Karnaugh Maps, combinational logic, arithmetic units, registers and sequential logic.

CET 3354  
Systems Applications in C: PR: CET 3198C, CET 3303, COP 3220, or knowledge of C. Use of C language in control of system processes, DOS and BIOS interrupts, and interfacing with assembly language.

CET 3383  
Applied Systems Analysis I: PR: Programming II (Pascal II). Study of system analysis, design, development and implementation cycle. Includes Object Oriented Programming (OOP) to implement system programs.

CET 4131C  
Microprocessor Electronics II: PR: CET 3123C. A continuation of CET 3123C, with emphasis on applications of microprocessor applications in engineering technologies.

CET 4138  
Digital Programmable Devices: PR: CET 3198C or equivalent and CI. Architecture and applications of various types of programmable logic devices. Design entry methods, e.g. HDL, schematic capture, etc. Lab exercises using PALs, PLDs, and FPGSs.

CET 4188  
Microcomputer Technology II: PR: CET 3303. Continuation of CET 3303. Advanced assembly language programming including macros, system subroutines, high-level language interfacing, device drivers, and operating system enhancements.

CET 4333C  
Applied Computer Systems I: PR: CET 3198C and CET 3303. Microprocessor based systems design and implementation. System components; memory; input/output devices, busses, process control architecture, timing and troubleshooting.

CET 4334C  
Applied Computer Systems II: PR: CET 3198C and CET 3303. Computer communications methods with emphasis on serial and parallel data communications and computer networking.

CET 4361  

CET 4381  
Digital Signal Processing: PR: EET 4329C and COP 1200 or equivalent. Introductory treatments of the concepts of digital signal processing. Survey of current applications, including consideration of available hardware and software.

CET 4427  
Applied Database I: PR: CET 3383. Design and implementation of data base systems within the concept of central administration, structured data storage. Programming project.

CET 4429  

CET 4505  

CET 4523  
Applied Systems Analysis II: PR: CET 3383. Continuation of CET 3383, with emphasis on distributed processing which includes the interfacing of minis, mainframes, software, communications, and data base technology into a responsive information system.

CET 4527  
Applied Operating Systems II: PR: CET 4505. Continuation of CET 4505, with emphasis on multitasking. Multi-users environmental programming project is required.
CET 4915
Senior Design Project: PR: Computer, Electronics, or Information Systems Engineering Technology senior within 18 semester hours of graduation. Supervised individual or group projects involving project definition, planning, design, development, testing and evaluation. Progress reports and final report are required.

CET 4931
Current Topics in Technology: PR: C.L. Study of recent state-of-the-art computer related topics from recognized electronics and computer oriented technical journals and texts. Requires written and verbal communication.

CGN 3501
Civil Engineering Materials: PR: C.L. The characterization of materials used in civil engineering works to include concrete, soils, bituminous, polymers and composite materials.

CGN 4300
Civil Engineering Systems: PR: EGN 3331, EGN 3353, and STA 3032. Application of mathematical techniques associated with operations research to the design and operation of systems that concern civil and environmental engineers.

CGN 5320C
Geographic Information Systems: Programming theory and application of Geographic Information Systems to Civil Engineering projects.

CGN 5504C
Civil Engineering Materials: PR: C.L. Structure, properties and applications of materials used in civil engineering including concrete, steel, asphalt, wood, soils, and composite materials.

CGN 5506C
Asphalt Concrete Mix Design: PR: CEG 4101. Properties of asphalt, aggregate and asphalt mixtures, Marshall mix design, Hveem mix design, pavement rehabilitation.

CGS 1060C
Introduction to Computer Science: History, typical computer, number systems, control and data flow, peripheral components, memory devices, effects of computers on society, applications of computers. Not open to Computer Science Majors.

CGS 3000C
Computer Fundamentals for Business Applications: Hardware/software for business data processing; survey use of business applications programs utilizing prewritten programs. Not open to Computer Science Majors.

CGS 3061
Personal Computing: Survey of personal computers on the market; applications for education, entertainment and clerical work; programming in BASIC with exercises. Not open to Computer Science Majors.

CGS 3100
Business Applications Programming: PR: CGS 3000 or equivalent. Basic programming concepts and techniques, algorithm design, documentation, programming for selected business applications using BASIC. Programming projects. Not open to Computer Science Majors.

CGS 3262

CGS 3300

CGS 3422
Programming and Numerical Methods: CR: MAC 3312. Programming with a high-level language (e.g., FORTRAN), I/O, formatting and manipulation of one and two-dimensional arrays, with emphasis on numerical problems. Not open to Computer Science Majors.

CGS 3508
Modern Word Processor Concepts: PR: CGS 1060C. The history, features, design and commands of Windows environment word processor — text entry and editing summary of command and built-in functions, dictionaries and thesaurus, and formatting and report control.

CGS 3511
Spreadsheet Handling and Macros: PR: CAP 3517. The spreadsheet ranges, graphics, linking sheets (spreadsheets and others), and basic and intermediate macros.

CGS 3517
CGS 3518 AS 1(1,0)
Spreadsheet Handling and Decision Making Tools: PR: CGS 3511. Advanced macros, database
facilities, linkages to other decision making tools, and algorithmic issues.
CGS 3581 AS 1(1,0)
Document Presentation & Graphics: PR: CAP 3508. Additional publishing software, introducing pres-
etation techniques, CD-ROM, and more advanced presentations.
CGS 3582 AS 1(1,0)
Advanced Techniques and Desk Top Publishing: PR: CAP 3581. Advanced presentation schemes
with the introduction and use of hypertext, sound, and animation. Desk Top Publishing.
CGS 4140 AS 3(3,0)
Computerized Health Information Systems: PR: CGS 3000 or equivalent. Analysis of computerized
health information systems, with emphasis upon the design and implementation phases. On-site visitas-
tions of several local computerized health information systems. Not open to Computer Science majors.
CGS 4453 AS 3(3,0)
Introduction to Robot Vision: Pin hole camera and eye, perspective and orthographic projections,
edges, regions, binary images, recognizing human faces, mobile robots, texture, illusions, robot arm
kinematics.
CGS 4630 AS 3(3,0)
Introduction to Artificial Intelligence: PR: COP 3530 and COT 3100. Current methods in AI:
knowledge-based systems, representation, inference, planning, natural language. Programming in Lisp or
Prolog required.
CGS 5415 AS 3(3,0)
Computer Vision: PR: COP 3530. Image formation, binary vision, region growing and edge detection,
shape representation, dynamic scene analysis, texture, stereo and range images, and knowledge
representation.
CGS 5610 AS 3(3,0)
Machine Learning: PR: CGS 4630 or C.I. Origin/evaluation of machine intelligence; machine learning
concepts and their applications in problem solving, planning and "expert systems;" symbolic role of
human and computers.
CGS 5635 AS 3(3,0)
Artificial Intelligence and Prolog: PR: CGS 4630. Analysis of deductive databases, applications of
logic programming to knowledge representation and "expert systems."
CGS 5636 AS 3(3,0)
Advanced Artificial Intelligence: PR: CGS 4630. AI theory of knowledge representation, "expert sys-
tems," memory organization, problem solving, learning, planning, vision, and natural language.
CGS 5725 AS 3(3,0)
Computer Graphics Systems I: PR: COP 3530 or equivalent. Architecture of graphics processors; dis-
play hardware; principles of programming and display software; problems and applications of graphic
systems.
CHI 1120 AS 4(4,1)
Elementary Chinese Language and Civilization I: Designed to initiate the student to the major lan-
guage skills; listening, speaking, reading and writing.
CHI 1121 AS 4(4,1)
Elementary Chinese Language and Civilization II: PR: CHI 1120 or equivalent.
CHM 1020 AS 3(3,0)
Concepts in Chemistry: PR: MAC 1104 or MGF 1203. Concepts will be examined to provide insight
into the significant role that chemistry plays in our culture. Intended as a general education course.
CHM 1032 AS 3(3,0)
General Chemistry: PR: MAC 1104, MGF 1203 or equivalent. An introductory study of the fundamental
concepts of chemistry, primarily oriented toward Biology Education COH and PA and Engineering
Technology majors.
CHM 1032L AS 1(0,3)
General Chemistry Laboratory: CR: CHM 1032. An introductory study of physical and chemical prop-
erties of elements and compounds.
CHM 2045 AS 4(3,1)
Chemistry Fundamentals I: PR: High school chemistry or CHM 1032. Basic physical theory of chemi-
cal reactivity, atomic structure, chemical bonding, periodicity, stoichiometry, equilibria, thermodynamics,
and kinetics.
CHM 2045H AS 4(3,3)
Honors Chemistry Fundamentals I: PR: Admission to University, Honors Program and high school
chemistry. Same as CHM 2045 with honors-level content.
CHM 2046 AS 3(3,0)
Chemistry Fundamentals II: PR: CHM 2045. Continuation of CHM 2045.
Considered.

The CHM course through interpretation of Applied Biological polyactivity, and design of pharmaceuticals and agrochemicals, as methods, polymerization mechanisms, characterization techniques, and polymer properties will be considered.

CHM 2046H
Honors Chemistry Fundamentals II: PR: 2045H. Same as CHM 2046 with honors-level content.

CHM 2046L
Chemistry Fundamentals Laboratory: PR: CHM 1032 or CR: CHM 2046. Illustration of chemical principles and introduction to the techniques of inorganic and physical chemistry.

CHM 2205
Introduction to Organic and Biochemistry: PR: CHM 1032 or equivalent. An introduction to organic chemistry, stressing the chemistry of functional groups and a survey of the biochemistry of proteins, carbohydrates, lipids, and nucleic acids.

CHM 3120C
Analytical Chemistry: PR: CHM 2046, 2046L. Laboratory practices of classical and instrumental analysis. Choice of preferred analytical methods and techniques is emphasized through applications involving both inorganic and organic systems.

CHM 3210

CHM 3211

CHM 3211L
Organic Laboratory Techniques I: PR: CHM 3210. An introduction to the laboratory techniques of organic chemistry, including the preparation, reaction, and analysis of organic compounds.

CHM 3212L
Organic Laboratory Techniques II: PR: CHM 3211 and 3211L. Open-end laboratory to develop synthesis techniques and structure elucidation skills.

CHM 3410
Physical Chemistry I: PR: CHM 2046, PHY 3049, and MAC 3312. Rigorous treatment of atomic and molecular structure, thermodynamics, kinetics, and chemical bonding.

CHM 3411
Physical Chemistry II: PR: CHM 3410. Continuation of CHM 3410.

CHM 3411L
Physical Chemistry Laboratory: CR: CHM 3411. Classical as well as modern instrumental techniques coupled with computer data processing to measure physical properties and determine atomic and molecular Parameters.

CHM 4130C
Advanced Analytical Laboratory Techniques: PR: CHM 3211, CHM 3120C and CHM 3411. A lecture-laboratory course designed to give in-depth coverage to modern methods of analysis including electrochemistry, spectroscopy, and separation techniques.

CHM 4220

CHM 4221

CHM 4610

CHM 4610L
Inorganic Chemistry Laboratory: PR: CHM 4610. A study of physical and chemical properties and synthetic techniques in Inorganic Chemistry.

CHM 5235

CHM 5305
Applied Biological Chemistry: PR: CHM 3211. The identification from plants, synthesis, assessment of bioactivity, and design of pharmaceuticals and agrochemicals, as well as the impact of biotechnology in the chemical industry.

CHM 5450
Polymer Chemistry: PR: CHM 3211. An introduction to the chemistry of synthetic polymers. Synthetic methods, polymerization mechanisms, characterization techniques, and polymer properties will be considered.
CHM 5451 AS 2(0,6)
Polymer Chemistry Laboratory: PR: CHM 3211 AND CHM 3410. A laboratory course designed to introduce students to the major polymerization mechanisms. Polymer synthesized in the laboratory will be characterized using modern instrumental methods.

CHM 5580 AS 3(3,0)

CHM 5711 AS 2(2,0)
The Chemistry of Materials: PR: CHM 3211, CHM 4130C, and CHM 3411. Structure and properties of chemical products, with an emphasis on the correlation between molecular form and the functional properties deemed desirable for the product.

CHS 1440 AS 4(3,1)
Fundamentals of Chemistry for Engineers: PR: One year of high school chemistry or CHM 1032. Basic concepts of chemistry, with emphasis on problem solving and engineering applications. Atomic and molecular structure, states of matter, stoichiometry, equilibria, electrochemistry and thermodynamics.

CHS 3501 AS 3(3,0)
Introduction to Forensic Science: Intended for majors and non-majors to provide an overview of the specialty areas in Criminalistics (crime lab).

CHS 3505 AS 3(1,6)
Forensic Microscopy: PR: CHM 2046 or C.I. The study of the polarized light microscope and its use in the identification and comparison of trace evidence.

CHS 3511 AS 3(1,6)
Trace Evidence: PR: CHS 3505. An advanced study of the techniques used to identify and compare trace evidence.

CHS 3531 AS 3(1,6)
Forensic Analysis of Controlled Substances: PR: CHM 3120C. The study of the presumptive tests, isolation, and instrumental techniques used in identification of controlled substances.

CHS 4110C AS 3(2,3)
Nuclear and Radiochemistry: PR: CHM 3120C and CR: CHM 3411. A lecture-laboratory course examining theories of fundamental particles, the chemical effects of nuclear transformations and the special uses of isotopes.

CHS 4200 AS 3(3,0)
Concepts in Industrial Chemistry: PR: CHM 3410. An introduction to industrial practices, emphasizing the application of chemical principles in the development of a commercial process or product.

CHS 4591 AS 6(0,4)
Forensic Science Internship: PR: C.I. Credit for full-time work (15 weeks; 600 hours) for a professional forensic laboratory. This course may be repeated for credit.

CHS 5241 AS 2(2,0)
Chemical Dynamics II: PR: CHS 5240. Continuation of CHS 5240.

CHS 5250 AS 2(2,0)
Chemical Synthesis I: PR: CHM 3211, and 3411; or equivalent. Survey of chemical synthesis from the standpoint of planning a synthesis, intermediates, special techniques, protection of functional groups, experimental design and optimization of reaction conditions.

CIS 4321 AS 3(3,0)
Data Processing Systems Analysis and Design: PR: Computer Science Major or C.I. and COP 3530. Data organization; physical storage; database system architecture. Students participate in the design of a data processing system.

CIS 4322 AS 3(3,0)
Data Processing Systems Implementation: PR: Computer Science Major or C.I. and CIS 4321. System implementation project. Students experience the task of implementing a large computing system.

CIS 5101 AS 3(3,0)
Computational Techniques in Management Information Systems: PR: COP 4710. Computers in management information systems; analysis, design approaches, processing methods and data management; use of state-of-the-art software in design and development.

CJT 3820 HPA 3(3,0)
Security Administration: Discussion of modern security administration and the security-law enforcement interface, emphasizing a systems approach and utilizing the design of a security plan for a plant.

CJT 3821 HPA 3(3,0)
Practical Security Applications: An examination of basic security principles applied to practical specific security situations encountered in the Central Florida area.

CJT 3842 HPA 3(3,0)
Special Security Problems: Review and application of basic security principles to retail security, transportation/cargo security, utility security, computer security, and other special security situations.

254
CLA 3850 AS 3(3,0)
Classical Mythology: Myths of the Greeks & Romans studied through excerpts from ancient sources and experienced through works of art, literature, and music.

CLA 3851 AS 3(3,0)
Comparative Mythology: Common themes found in the myths of various cultures; theories of their origins, meaning and value in human experience.

CLP 3003 AS 3(3,0)

CLP 3143 AS 3(3,0)

CLP 3302 AS 3(3,0)
Clinical Psychology: PR: PPE 3003 and CLP 3143. An overview of approaches to psychopathology, methods of clinical assessment, and various approaches to individual and group counseling.

CLP 3413 AS 3(3,0)
Contemporary Behavior Therapy: PR: CLP 3143. Emphasis on the underlying principles and the specific intervention procedures which are utilized in contemporary behavior therapy, including treatment strategies for particular behavior disorders.

CLP 4134 AS 3(3,0)

CLP 4402C AS 3(2.2)

CLP 5165 AS 3(3,0)
Advanced Abnormal Psychology: Consideration of classification, causation, management and treatment of emotional disorders. Review of theories and research in the field. Lecture/Laboratory.

CMC 4240 AS 3(1,2)
Corporate/Institutional Video: PR: RTV 3200, RTV 3260 (RTV 3260 may be taken concurrently). Preparation of non-broadcast corporate/institutional video programs including planning, budgeting, production, and evaluation.

COM 3011 AS 3(1,2)
Communication and Human Relations: Introduction to semantics; symbols and meaning and the relationship with human behavior.

COM 3110 AS 3(3,0)
Business and Professional Communication: PR: SPC 1600 or C.I. Theoretical and practical training in effective presentational speaking for business and professions.

COM 3120 AS 3(3,0)
Organizational Communication: A study of communication functions and problems within the contexts of hierarchies.

COM 3311 AS 3(3,0)
Communication as a Behavioral Science: Basic principles of the behavioral science approach to the study of contemporary communication.

COM 3701 AS 3(3,0)
Humor in Communication: Designed for upper division organizational and interpersonal communication majors, course probes the involvement of humor in language, message transmission, cognition, and social functioning.

COM 4461 AS 3(3,0)
Intercultural Communication: Study of variables affecting messages and participants in intercultural contexts.

COM 4462 AS 3(3,0)
Conflict Management: The study of communication in everyday conflicts.

COP 2500 AS 3(3,0)
Computer Science I: PR: Knowledge of Modula-2, college algebra and college trigonometry. Techniques of algorithm development; structured programming concepts; algorithms for searching and sorting procedures; computer experience with a procedure-oriented language.

COP 2501 AS 3(3,0)
Computer Science II: PR: COP 2500. Continuation of COP 2500; recursion; simple data structures; program verification; continued experience with a procedure-oriented language.

COP 3200 Computer Programming: PR: College algebra and trigonometry or equivalent. Problem definitions, algorithms, flow charts, digital computer programming using a higher level language (FORTRAN). Not open to Computer Science Majors.

COP 3210 Pascal Programming Language: Lecture and programming experience in Pascal.

COP 3220 C Programming Language: PR: Knowledge of a procedural high-level programming language. Lecture and programming experience in C.

COP 3230 ADA Programming Language: PR: Knowledge of a procedural high-level programming language. Lecture and programming experience in ADA.

COP 3341 UNIX: PR: Knowledge of the C programming language. Lecture and programming experience in UNIX.

COP 3400 Assembly Language: PR: COP 2501 or equivalent programming experience. Computer structure, number systems, data representation, arithmetic and logical instructions, addressing schemes, looping techniques, sequential input/output, subroutines, macros, and other topics.

COP 3402C Computer Systems Concepts/Programming: PR: COP 3400C, Data Structures and Knowledge of C. Linker, loader, assembler design and development. Detailed examinations of one computer's operating system and its associated architecture. Advanced topics in assembly language, including file input/output.

COP 3530 Computer Science III: PR: COP 2501 and COT 3100. Design and analysis of implementation techniques of abstract data types, such as stacks, queues, linear lists, arrays, trees, and heaps.


COP 3703 Database Concepts: PR: CGS 1060C. The relational model using current software, logical and physical data structures, data concepts and modeling conceptual database design. Implementation and physical design relational database language fundamentals.


COP 4020 Programming Languages I: PR: COP 3530. Survey of programming languages (LISP, MODULA, SIMULA, SMALLTALK, ADA, CLU). Basic concepts underlying programming languages: data typing, data abstraction, binding, parameter evaluation, concurrency, functional programming.

COP 4124 COBOL Environment: PR: Computer Science core. Basic and advanced features; creation of user libraries, system utilities, file processing; sub-program linkage; programming efficiencies; compiler study; assembly interfaces, and JCL.

COP 4600 Programming Systems: PR: COP 3402 and COP 3530. The function and organization of operating systems. Design and implementation considerations regarding operating systems, compilers, assemblers and loaders.

COP 4710 Databases: PR: COP 3530. Basic concepts of databases, I/O processing, file organization and access, study of selected database systems, database project.

COP 5021 Programming Languages II: PR: COP 4020 and COT 4210. Introduction to compiler construction, parsing, parser generators, attributed grammars and the implementation of block structures and recursion. Students write a high-level language translator.

COP 5870 Software Tools: PR: COP 4600 and COP 5021. Systems programming languages, concurrent programming, design and implementation of software development/maintenance tools. A large programming project is required.
COP 5611
Operating System Design Principles: PR: COP 4600. Structure and functions of operating systems, process communications techniques, high-level concurrent programming, virtual memory systems, elementary queueing theory, security, distributed systems, case studies.

COP 5711

COT 3100
Introduction to Discrete Structure: PR: MAC 3311 and knowledge of a programming language. Logic, sets, functions, relations, combinatorics, graphs, Boolean algebras, finite-state machines, Turing machines, unsolvability, computational complexity.

COT 4110

COT 4210

COT 4500

COT 5310
Formal Languages and Automata Theory: PR: COP 4020 and COT 4210. Classes of formal grammars and their relation to automata, normal forms, closure properties, decision problems. LR(K) grammars.

COT 5405

COT 5507
Computational Methods/Applications: PR: COT 4500. Computational solution techniques for algebraic equation, ODE and PDE Models of applications selected from science, engineering, applied mathematics, and computer science.

COT 5510
Computational Methods/Linear Systems: PR: COT 4500 and MAS 3113. Mathematical models for linear systems, linear programming, the simplex method, integer and mixed-integer programming, introduction to nonlinear optimization and linearization.

CPO 3034
Politics of Developing Areas: Comparative analysis of theories, problems and politics of development in Third World nations.

CPO 3103
Comparative Politics: Government and politics in selected nations, with emphasis upon comparative analysis of contemporary problems, politics, political culture, behavior, and institutions.

CPO 3104
Politics of Western Europe: PR: POS 2041 or C.I. An examination of the political and economic dynamics of Western Europe in the post-1945 era.

CPO 3132
Introduction to Canadian Studies: A multi-disciplinary approach to the study of Canada, its people, culture, government, and economy.

CPO 3403
Politics of the Middle East: PR: POS 2041 or C.I. An examination of the dynamics of Middle East politics, including both regional and international dimensions.

CPO 3614
Politics of Eastern Europe: PR: POS or C.I. An examination of the political and economic dynamics of Eastern Europe in the post-1945 era.

CPO 4062
Comparative Judicial Process: Study of courts and judges in cross national context. Focus upon judicial recruitment, decisional patterns, and policy outcomes.

CPO 4123
Government and Politics of Great Britain: A survey of British government, society, politics and institutions, emphasizing parliamentary traditions. Britain's foreign policy and European role will be discussed.
CPO 4133 AS 3(3,0)
**Government & Politics of Canada:** Examines the origins and development of Canadian government. Focuses on the functioning of federalism, nationality politics, foreign policy, and relations with the United States.

CPO 4303 AS 3(3,0)
**Comparative Latin American Politics:** Comparative analysis of politics, society and culture in Latin America and selected countries of the region.

COP 4643 AS 3(3,0)
**Government and Politics of the Soviet Union:** Study of the origins, institutions, and functioning of the Soviet system, including the role of the Communist party and its influence on domestic and foreign policy formation and implementation.

CRT 4931 EN 3(3,0)
**Current Topics in Technology:** PR: C.I. Study of recent state-of-the-art computer related topics from recognized electronics and computer oriented technical journals and texts. Requires written and verbal communication.

CRW 1001 AS 3(3,0)
**Imaginative Writing for Non-English Majors:** An introduction to imaginative writing for non-English majors. Students will explore a variety of traditional and non-traditional forms of imaginative writing.

CRW 3003 AS 3(3,0)
**Creative Writing for English Majors:** PR: ENC 1102 and English or English Ed. major, or C.I. An exploratory course in the several types of creative writing; group analysis of original writing; critical reading of established authors.

CRW 3100 AS 3(3,0)
**Fiction Writing:** PR: CRW 3000. English majors in creative writing specialize in fiction writing; advanced group analysis and criticism of work produced by individual students.

CRW 3300 AS 3(3,0)
**Poetry Writing:** PR: CRW 3000. Practice in writing poetry; group analysis and criticism of work produced by individual students.

CRW 3310 AS 3(3,0)
**Structure of Verse:** PR: ENC 1102. Intensive study of the structural characteristics of English, poetry, metrical systems, rhyme, scansion, and poetic rhetorical devices.

CRW 3410 AS 3(3,0)
**Writing Scripts:** PR: CRW 3000 and Grammar Proficiency Exam. Theory and practice of writing scripts for film and TV.

CRW 3540 AS 3(3,0)
**Literary Magazines:** PR: CRW 3000. Examination of fiction and poetry trends in current literary magazines, identifying editorial policies in publication of contemporary literature.

CRW 4114 AS 3(3,0)
**History of Prose Style:** PR: ENC 1102. A review of English prose style from 1611 to 1960.

CRW 4122 AS 3(3,0)
**Advanced Fiction Writing Workshop:** PR: CRW 3100. Intensive writing practice in fiction. Peer critique and group discussion of original manuscripts. May be repeated once for credit.

CRW 4123 AS 3(3,0)
**Science Fiction Writing:** Study of science fiction literature and writing of original science fiction stories. Workshop format with critique of writing assignments.

CRW 4320 AS 3(3,0)
**Advanced Poetry Writing Workshop:** PR: CRW 3300. Intensive writing practice in poetry. Peer critique and group discussion of original manuscripts. May be repeated once for credit.

CRW 4420 AS 3(3,0)
**Advanced Scriptwriting Workshop:** PR: CRW 3410. Intensive writing practice in writing scripts. Peer critique and group discussion of original manuscripts.

CRW 5932 AS 3(2,1)
**Teaching Creative Writing:** PR: C.I. Creative writing practicum.

CWR 3201 EN 3(3,0)
**Engineering Fluid Mechanics:** CR: EGN 3343. Fundamentals of fluid mechanics with hydraulic applications: fluid properties, hydrostatics, dimensional analysis, energy, momentum, continuity, and steady flow.

CWR 4101C EN 3(2,2)
**Hydrology:** PR: STA 3032; EGN 3353. Hydrological cycle, probabilistic forecasting, rainfall excess meteorology, groundwater, storm-water runoff, flood routing and design applications.
CWR 4203C  
Hydraulics: PR: CWR 3201 (Engineering Fluid Mechanics). Continuation of CWR 3201 with emphasis on piping networks, pumps, and hydraulic systems. Laboratories with civil and environmental engineering applications.

CWR 5205  

CWR 5545  
Water Resources Engineering: PR: CWR 4101C, CWR 4201C. Systems identification and solution to complex water allocation problems, and other hydraulic engineering designs and operations using economic analysis and operations research techniques.

DAA 2200  
Theatre Dance I: Fundamentals of Classical Ballet; includes practical class work as well as Dance History lectures.

DAA 3000  
Theatre Dance: PR: DAA 2200 & 3201 or C.I. Specialized study of Theatre Dance styles of the 1920s to the 1980s. Demonstration and performance of students highlighting segments of Broadway shows. May be repeated for credit.

DAA 3100  
Theatre Modern Dance: PR: DAA 2200 & 3201 or C.I. Exploration of form, style, and technique in creative movement. Includes practical class work and history lectures.

DAA 3201  
Intermediate Classical Ballet: PR: DAA 2200 or C.I. In-depth study of classical ballet technique, including principles, theory, and practice technique.

DAA 3500  
Intermediate Jazz Dance: PR: DAA 2200 or C.I. Introduction of the basic movements of American Jazz Dance, including practical class work as well as Jazz Dance history.

DAA 3600  
Theatre Tap Dance: Exploration of form, style, and technique in the basic fundamental movements of tap dance. May be repeated for credit.

DAA 4501  
Advanced Jazz Dance: PR: DAA 2200 & DAA 3500 or C.I. In-depth study of Jazz Dance as a major style of dance, using theory and practice in jazz technique.

DAA 4710  
Theatre Dance Choreography and Performance: PR: By audition. Students will create and present a piece choreographed and performed by other dancers in concert. May be repeated for credit.

DAE 3300  
Dance Techniques: Analysis of creative dance and movement techniques as they relate to the teaching of physical education.

DAE 3370  
Dance and Rhythmics: The development of skill proficiency and instructional strategies in rhythmics and dance techniques, and fundamental movement patterns for grades K-12.

DEP 3004  

DEP 3202  
Psychology of Exceptional Children: PR: PSY 2013. Psychological problems of exceptional children, including diagnosis, associated emotional problems, effects of institutionalization, special class placement, attitudes, and appropriate intervention methods.

DEP 3212  
Psychological Approaches to Mental Retardation: PR: PSY 2013. The problems of mentally retarded citizens, including diagnosis, environment versus heredity, legal restrictions, institutionalization, as well as methods of behavioral remediation.

DEP 3464  
Psychology of Aging: PR: PSY 2013. An examination of basic psychological processes related to the aging process, with emphasis on the applied implications of changes in perceptual-motor, social emotional and cognitive-intellectual function.

DEP 5057  
Developmental Psychology: PR: Graduate admission or C.I. Psychological aspects of development including intellectual, social, and personality factors.

259
EAB 3703
Principles of Behavior Modification: PR: EXP 3404. An examination of the control of behavior through applications of principles and theories of learning. Examples are drawn from clinical and social psychology and from child rearing. Lecture/Practicum.

EAB 3704

EAB 5765
Applied Behavior Analysis with Children and Youth: PR: DEP 5057 and EXP 5445 or C.I. Advanced survey of principles, procedures, and techniques of applied behavior analysis, with special attention to applications with children and youth.

EAS 3010

EAS 3010
Aerodynamics I: PR: EAS 3010. Theory of incompressible flow over airfoils and finite wings including potential flow concepts and classical methods. Applications of theory to the aerodynamic design of flight vehicles.

EAS 3530

EAS 3800C

EAS 3810C

EAS 4105

EAS 4134
High-Speed Aerodynamics: PR: EAS 3101. Continuation of EAS 3101. Normal and oblique shock waves, nozzles and wind tunnels, methods of analyzing compressible flow about airfoils, wings, and bodies. Viscous boundary layers and applications to the design process.

EAS 4200

EAS 4210

EAS 4300

EAS 4400

EAS 4400

EAS 4505

EAS 4700C
Aerospace Design I: PR: EAS 3810. Application of the design process to the team solution of a state-of-the-art problem. Airplanes and space vehicles, systems and devices are considered.

EAS 4710C
Aerospace Design II: PR: EAS 4700. Continuation of the design process in the team building and testing of a prototype/model of an airplane, spacecraft, system or device.
EAS 5123

EN 3(3,0)

EAS 5157

EN 3(3,0)

EAS 5302

EN 3(3,0)

EAS 5315

EN 3(3,0)

ECM 5135

EN 3(3,0)

ECM 5741C
Microcomputer-based Monitoring and Control Systems: PR: EEL 3342; EEL 4767C or C.I. Machine language programming; software development aids; systems design; interfacing considerations.

EN 3(2,3)

ECO 2013
Principles of Economics I: An introduction to macroeconomics, including an overview of the market economy; national income, employment, and price level determination, stabilization policies, and international economics.

BA 3(3,0)

ECO 2013H
Honors Principles of Economics I: PR: Open to Honor Students only. Same as ECO 2013 with honors-level content.

BA 3(3,0)

ECO 2023
Principles of Economics II: The determination of prices in a market economy; their role in allocating consumer and producer goods and in distributing incomes, including attempts to improve market efficiency through public policy.

BA 3(3,0)

ECO 3101

BA 3(3,0)

ECO 3203

BA 3(3,0)

ECO 3223

BA 3(3,0)

ECO 3401
Mathematical Economics I: PR: ECO 2013 and 2023 and MAC 1104. The study of economic processes as equations and economic systems as mathematical models.

BA 3(3,0)

ECO 3411

BA 3(3,0)

ECO 3622

BA 3(3,0)

ECO 3703

BA 3(3,0)

ECO 3723
International Commercial Policy: PR: ECO 2013 and ECO 2023. Presents the fundamentals of international commercial policy, with special emphasis on U.S. trade policy since WW II.

BA 3(3,0)

ECO 4303

BA 3(3,0)

ECO 4412

BA 3(3,0)
ECO 4504 Economics of the Public Sector: PR: ECO 2023. A study of fiscal institutions and decision-making, and how government budgetary policy (spending, taxing, borrowing, and debt management) affects the economy and its citizens.

ECO 5005 Economic Concepts: PR: Acceptance into the graduate program. Introduction to micro and macro economic analysis.

ECO 5415 Statistics for Business and Economics: PR: Acceptance into the graduate program and MAC 3233. Statistical theory and problems relating to business and economics, including time series and correlation theory, index number theory and statistical inference.


ECP 3203 Contemporary Labor Economics: PR: ECO 2023 and ECO 2013. The analysis of labor problems and issues in a dynamic contemporary economy through the interaction of the four major institutions: households, firms, government, and unions.

ECP 3433 Transportation Economics: PR: ECO 2023 and ECO 2013. Economic characteristics and governmental regulation of public carriers. Consideration of competitive relations between modes of transportation and criteria for public investment in transportation and criteria of public investment in transportation systems.

ECP 4403 Business, Government, and Industrial Organizations: PR: ECO 2023 and ECO 2013. A study of the performance of industries representative of various types of market structure and practices, as well as the public policies affecting these industries.

ECP 4603 Urban and Regional Economic Problems: PR: ECO 2023 and ECO 2013. Analysis of the location, organization and problems of urban and regional economic activities.

ECP 4703 Managerial Economics: PR: Junior standing. ACG 2071 or ACG 2023, ECO 2023, ECO 2013 and ECO 3411. The uses of economic analysis in economic decision-making and business policy formulation.


ECS 4303 Economics of European Integration: PR: ECO 2013 and ECO 2023. Presents the development of the European Community, with emphasis on the characteristics of the Single European Act (EC '92).

EDE 3942 Internship I (Elementary): PR: EDG 4321, RED 3012, MAE 3810 AND 3811 or MAE 3112. Student teaching assignment in an elementary school under the supervision of a certified classroom teacher.

EDE 3943 Internship I (K-12): PR: Except. Ed. Majors; EDG 4321; RED 3012; MAE 3112. Student teaching under the supervision of a certified teacher. Half in elementary, half in secondary.

EDE 4943 Internship II (Elementary): PR: EDE 3942 or EDE 3943. Student teaching in an elementary school under the supervision of a certified classroom teacher. Scheduled concurrent seminars.

EDE 5541 Individualized Instruction in the Elementary School: PR: Regular Certificate or C.J. Study of basic philosophy, organizational patterns, techniques, materials, and activities related to individualizing instruction in the elementary school classroom.
EDF 2005
Introduction to Education: An overview of the teaching profession and contemporary issues affecting teachers and students. For students considering a career in any area of professional education.

EDF 2240
Introduction to Applications of Technology in Education: Classroom applications of instructional media including computers.

EDF 3337

EDF 3603
Analysis of Educational Foundations: PR: Junior standing or C.I. Analysis of and participation in general and specific dimensions of teaching with socio-economic, historical and philosophical factors emphasized.

EDF 4214
Classroom Learning Principles: PR: EDF 2xxx, Junior standing or C.I. Principles of learning as applied to classroom teaching situations, with emphasis on student development, behavior, self-concept and motivation.

EDF 4286
Applications of Technology in Education: Classroom applications of instructional media, including computers. Includes experiences with equipment, commercial and teacher-made media, and their uses.

EDF 4604
Overview of Education: A brief analysis of the American educational system, focusing on social political, economic, and intellectual development through an internal atmosphere of interaction and discussion.

EDF 5245
Preparation and Management of Classroom Instruction: PR: C.I. Study of strategies for instructional planning and classroom management that result in optimum learning.

EDG 4321
Teaching Strategies I: EDF 2xxx, Junior Standing or C.I. Analysis of the learning environment; emphasis on planning for instruction, skill development, and measurement and evaluation.

EDG 4324
Teaching Strategies II: PR: EDG 4321 and EDF 4214. Varieties of learning and teaching styles, appropriate methods of teaching thinking skills, problem solving, reading, and writing across the curriculum.

EDG 4941
Directed Field Experience: PR: Approval of Professional Laboratory. Field experience in an appropriate educational setting under the direction of a supervising teacher and/or university supervisor.

EDG 5325
Techniques for the Developing Professional in Education: PR: C.I. Analysis, study, development, and use of techniques for enhanced instruction in the educational setting.

EDG 5337
Teaching Individuals, Small and Large Groups: PR: C.I. Study of teaching skills for effectively instructing individuals in various educational groups, with consideration of developmental and behavioral characteristics of students.

EDG 5745
Teaching the Non-English Student: PR: FLE 3063 or C.I. Bilingual and non-linguistic instruction in curriculum areas in English as a second language.

EDG 5941
Clinical Practice: PR: Admission to STEP II, III or IV. Clinical Internship in an appropriate educational setting under the direction of a university supervisor or peer teacher.

EDM 5235
Teaching in the Middle School: Methods of middle school teaching; team planning and teaching; development and learning patterns of the emerging adolescent; use of alternative teaching strategies.

EDS 5356
Supervision of Professional Laboratory Experiences: PR: C.I. Study of the undergraduate professional laboratory experiences program, with emphasis on the role and responsibilities of the Teacher Education Associate or Supervising Teacher.

EDS 5357
Supervision of Clinical Experiences: PR: C.I. Study of the Beginning Teacher and STEP Programs with emphasis on the Role and Responsibilities of the Peer Teacher or Building Level Administrator.

EEC 2001
Introduction to Early Childhood Education: An overview of early childhood education and services for young children and their families. Includes historical roots, societal changes, program differentiation and future trends.
Active Learning Teaching Strategies: Studies an integrated developmental-interactionist approach to curriculum planning and design. Equipment selection, room arrangements, daily schedules and active learning teaching strategies are emphasized.

Play Development: Explores play development, facilitation, intervention and assessment. Designing play environments is emphasized.

Social and Emotional Development of Young Children: Provides an indepth understanding of the social and emotional development of the young child. Examines the implication for curriculum development.

Integration Internships: Field based placement in which the students will have supervised practice integrating course content areas.

Early Intervention: Provides an overview of development assessment, and intervention with at-risk and handicapped infants and toddlers.

Cultural and Family Systems: Explores the institution of family in its cultural context as a living dynamic system.

Infant/Toddler Care and Education: Provides the knowledge and skills that will enable the student to become a competent worker with very young children and their families.

Organization and Management in Early Childhood: Provides students with managerial and supervisory skills required to administer a developmentally appropriate early childhood program.

Guidance of Young Children: PR: EEC 3610. Provides students with techniques to guide the behavior of young children.


Student Teaching: Provides opportunities for student teachers to use the knowledge and skills they acquired in a supervised public school setting.

Programs and Trends in Early Childhood Education: PR: Regular Certificate or C.I. Philosophy, content, facilities, instructional materials, and activities appropriate for children ages 3 to 8 years; current research; issues and trends. Concurrent laboratory experiences.

Organization of Instruction in Early Childhood Education: PR: Regular Certificate or C.I. Organization in instruction relating to language arts, social sciences, mathematics, health and physical education, problems relating to reading readiness and cognition (K-3). Concurrent laboratory experiences.

Creative Activities in Early Childhood: PR: Regular Certificate or C.I. Organization of instruction and methods for creative activities involving music, art, literature and educational toys, integration of activities, and basic skills curriculum (K-3). Concurrent laboratory experience.

Behavioral Issues of the Emotionally Handicapped: An introduction to functional schema of the field to include behavior management techniques, theories, legal considerations, counseling skills, etiology, prevention and utilization of community services.

Introduction to the Emotionally Disturbed: PR: Senior standing. Development and practice of appropriate cognitive, affective, and motor strategies for selected categories, levels, and degrees of severity of exceptional population.

Curriculum and Program Adaptation, E.H.: Development of highly specialized curriculum and identification, evaluation, modification, and use of curriculum materials and programs for students with emotional handicaps.

Teaching the Emotionally Handicapped: Instructional strategies with emphasis on motivational strategies, development, implementation and evaluation of the IEP, modification of regular education instructional practices, crisis intervention and prevention.
EEL 3122C  
**Electrical Networks**: PR: EGN 3373, PHY 3049L. Analysis and design of linear circuits, transients, network function. Laplace transform.

EEL 3140C  
**Analog Filter Design**: PR: EEL 3307C, EEL 3122. Analog filter design, both passive and active, from low pass prototypes using frequency transformations and based on low sensitivity.

EEL 3306  
**Semiconductor Devices I**: PR: EGN 3373. Electronic devices including p-n junctions, bipolar transistors, field effect transistors and device models.

EEL 3307C  

EEL 3341C  

EEL 3342C  
**Introduction to Digital Circuits and Systems**: PR: PHY 3049 or C.I. Switching theory and devices. Combinational and sequential logic. Logic design using standard components such as ROM, arithmetic units, multiplexers, registers, and counters.

EEL 3470  
**Electromagnetic Fields**: PR: EEL 3122 and MAP 3302. Introduction to electric and magnet fields and electromagnetic waves.

EEL 3552C  
**Signal Analysis & Communications**: PR: EEL 3122. Signal theory. Fourier series and integral. Design of modulation systems.

EEL 3657  

EEL 3801C  
**Introduction to Computer Engineering**: PR: Knowledge of a high level programming language. CR: EEL 3342C. Introduction to the field of computer engineering. The course covers the C Language, basic computer organization, and an introduction to assembly language programming.

EEL 4012C  
**Senior Design**: PR: For E.E.: EEL 4309, EEL 4767C, and all required EEL 3XXX courses; for CpE: EEL 4768C, EEL 3307C; CR: EEL 4884. Applications of engineering design to realistic and meaningful problems. Constraints such as economic factors, safety, reliability, aesthetics, ethics, social impact and engineering organizations are considered.

EEL 4205  
**Electric Machinery**: PR: EEL 3122, EEL 3470. Fundamentals of DC and AC electric machines.

EEL 4216  
**Fundamentals of Electric Power Systems**: PR: EEL 3122 or C.I. Three-phase power representation and analysis, transformers, per unit system, symmetrical components, faults, transmission lines.

EEL 4309C  
**Electronics II**: PR: EEL 3307C, EEL 3342C. Ideal Op-Amps and applications. Introduction to Logic Circuits; Bipolar, MOS and CMOS families; Flip-flops and memory cells, comparators and timing circuits; A/D and D/A converters.

EEL 4314  

EEL 4436C  
**Microwaves**: PR: EEL 3470. Microwave devices and systems and measurement techniques.

EEL 4440  
**Optical Engineering**: PR: EEL 3470, EEL 3552C or C.I. Lens systems, aberrations, sources, radiometry, detectors, physical optics, interferometric devices, applications to engineering design problems.

EEL 4512C  
**Communication Systems**: PR: STA 3032, EEL 3552C and EEL 3307C. Information transmission, modulation, and noise; design and comparison systems in the presence of noise.

EEL 4612  
**Introduction to Modern and Robust Control**: PR: EEL 3657. Classical control theory including differential equations and Laplace transform techniques, stability analysis, and classical frequency domain design.
EEL 4635C
Computer Control Systems: PR: EEL 3657. Discrete-time systems, the z-transform, and single loop computer control systems. Digital simulation in the analysis and design of processes with embedded computers. No graduate credit for both EEL 5630 and this course.

EEL 4750

EEL 4765C

EEL 4767C

EEL 4768C
Computer System Design II: PR: EEL 4767C, EEL 4884. Continuation of EEL 4767C. Control and datapath design using a hardware description language, microprogrammed architectures, instruction and arithmetic pipelines, cache and virtual memory and RISC.

EEL 4781

EEL 4783C
Computer-Aided Engineering Design: PR: ECM 4884 and EEL 4768C or C.I. Review of currently available CAE tools for digital hardware and software design applications.

EEL 4801L
Introduction to Computer Engineering: PR: EGN 3420. Introduction to the field of computer engineering, including the use of "C" programming for engineering applications.

EEL 4811
Parallel Processing and Artificial Neural Networks: PR: EEL 4767C and EEL 3801C. Overall of parallel processing approaches and architectures with emphasis towards concurrent neural network simulation.

EEL 4832
Engineering Applications of Computer Methods: PR: MAP 3302, STA 3032. EEL 4884. Engineering applications of numerical methods, including solution of differential equations, simulation, optimization, and multidimensional root-finding, integration and series approximations.

EEL 4851C
Engineering Data Structures: PR: EEL 3xxxC. Design of data structures and algorithms with emphasis on performance analysis, memory organization, stacks, queues, linked lists, trees, graphs, searches, and sorts. Introduction to object-oriented structures.

EEL 4872
Engineering Applications of Intelligent Systems: PR: EEL 4851. Intelligent models, computer vision, natural language understanding, pattern analysis, knowledge-based systems, symbolic programming, and advanced architectures.

EEL 4881
Engineering Systems Software: PR: EEL 4851 and EEL 3342. Introduction to operating systems concepts and facilities for engineering applications, including multiprogramming, resource allocation and management, systems utilities, and operating system implementation.

EEL 4884C
Engineering Software Design: PR: EEL 4882. Software systems development life cycle, function and object-oriented methodologies. CASE; Analysis, design, and development of a large software project.

EEL 5173

EEL 5240C

EEL 5255
EEL 5352  Semiconductor Material and Device Characterization: PR: EEL 3306 or C.I. Semiconductor material characterization: resistivity, mobility, doping carrier lifetime, device properties, threshold voltage, interface charage of MOS devices, optical and surface characterization of films. EN 3(3,0)

EEL 5353  Semiconductor Device Modeling and Simulation: PR: EEL 3307. Large signal and small signal model development for semiconductor diodes, BJTs, and MOSFETs. Parameter extraction, numerical algorithm, and SPICE simulation are included. EN 3(3,0)

EEL 5355C  Fabrication of Solid-State Devices: PR: EEL 3306. Fabrication of microelectronic devices, processing technology, ion implantation and diffusion, device design and layout. Laboratory includes device processing technology. ÉN 4(3,3)


EEL 5434  Microwave Circuits and Devices: PR: EEL 4436 or EEL 5555. Planar transmission lines; passive microwave circuits; active circuit design using Gunn, IMPATT, FETS, RTDS, etc.: microwave integrated circuits. EN 3(3,0)

EEL 5441  Introduction to Wave Optics: PR: EEL 4440 or PHY 4424 or C.I. Electromagnetic foundation of light waves as applied to reflection, diffraction, interference, polarization, coherence, and guided waves. EN 3(3,0)

EEL 5446  Optical Systems Design: PR: C.I. Design principles of lens and mirror optical systems' evaluation of designs using computer techniques. EN 3(3,0)

EEL 5450C  Thin Film Optics: PR: PHY 4424 or EEL 4440 and EEL 5441 or EEL 5451. Principles of thin film optics and its applications in optical, electro-optical, and laser systems. EN 3(2,1)

EEL 5451L  Electro-Optics Laboratory: PR: EEL 4440 or EEL 5441 or C.I. Study of laboratory techniques for optical measurements and performance of measurements on electro-optic devices to determine operational characteristics. EN 3(1,4)

EEL 5453  Geometrical Optics: PR: C.I. or G.S. Fundamentals of Geometrical Optics, Geometrical Theory of Image Formation, Optical System Layout. EN 3(3,0)

EEL 5462C  Antenna Analysis and Design: PR: EEL 3470 or equivalent. Fundamentals of antennas; dipoles, loops, arrays, apertures, and horns. Analysis and design of various antennas. EN 3(3,1)

EEL 5513  Digital Signal Processing Applications: PR: EEL 4750. The design and practical consideration for implementing Digital Signal Processing Algorithms including Fast Fourier Transform techniques, and some useful applications. EN 3(3,0)

EEL 5517  Surface Acoustic Wave Devices and Systems: PR: EEL 3552C. Course discusses SAW technology which includes the physical phenomenon, transducer design and synthesis, filter design and performance parameters. Actual devices and communication systems are presented. EN 3(3,0)

EEL 5542  Random Processes I: PR: EEL 3552C and STA 3032. Elements of probability theory, random variables, and stochastic processes. EN 3(3,0)

EEL 5555C  RF Communications: PR: EEL 3552C. RF communication systems, 10 MHz to 1500 MHz. Scattering parameter noise, receiver design, system implementation, spread spectrum. RF network and spectrum analyzers, PC board layout. EN 3(2,1)

EEL 5563  Fiber Optics Communication: PR: EEL 3552C, EEL 3470. Use of Fiber Optics as a communication channel. Principles of Fiber optics. Mode theory, transmitters, modulators, sensors detectors and demodulators. EN 3(3,0)

EEL 5630  Digital Control Systems: PR: EEL 3657. Real-time digital control system analysis and design, Z-transforms, sampling and reconstruction, time and frequency response, stability analysis, digital controller design. EN 3(3,0)
EEL 5704 EN 3(3,0)
Computer Aided Logical Design: PR: EEL 3342C or C.I. Analysis and synthesis of sequential logic circuits and systems. Data path and controller design using VHDL, a hardware description language.

EEL 5708 EN 3(3,0)

EEL 5762 EN 3(3,0)

EEL 5771C EN 3(2,3)
Engineering Applications of Computer Graphics: PR: EGN 3420 or C.I. Computer graphics in engineering applications. Laboratory assignments.

EEL 5820 EN 3(3,0)
Image Processing: PR: MAP 3302, EGN 3420, EEL 4750 or C.I. Two-dimensional signal processing techniques; pictorial image representation; spatial filtering; image enhancement and encoding; segmentation and feature extraction; introduction to image understanding techniques.

EEL 5825 EN 3(3,0)
Pattern Recognition: PR: MAP 3302, EGN 3420. Graph-theoretic and syntactic methods of pattern analysis. Decision functions; optimum decision criteria; training algorithms; feature extraction; unsupervised learning; data reduction and potential functions.

EEL 5874 EN 3(3,0)
Expert Systems and Knowledge Engineering: PR: EEL 4872 or C.I. Introduction to expert systems in engineering. Expert systems tools and interviewing techniques. This course is hands-on and project oriented.

EEL 5891 EN 3(3,0)
Software Engineering I: PR: EGN 3420, EEL 4851 or C.I. Design, implementation, and testing of computer software for engineering applications.

EEL 5891 EN 3(3,0)
Continuous System Simulation I: PR: EEL 3657 or C.I. Use of state-space techniques, numerical integration, and CSSL programs. Laboratory assignments.

EES 4111C EN 3(2,3)
Biological Process Control: PR: EES 4202C or C.I. and CR: ENV 4561. Engineering design, measurements and analysis of biological systems in environmental engineering for water management, bioenergy products, wastewater treatment, and others.

EES 4202C EN 3(2,3)
Chemical Process Control: PR: EGN 3704. Engineering design, measurements, and analysis of chemical systems in environmental engineering to control treatment processes such as softening, coagulation, disinfection, scrubbing, neutralization, and others.

EES 4401C EN 3(2,2)
Environmental Health: PR: EGN 3704. Topics and design examples in industrial hygiene, occupational and radiological health hazards, and pollution effects, such as those due to air noise, solid wastes, etc.

EES 5415C EN 3(2,3)
Potable Water Treatment: PR: EES 4202C and 4111C. Engineering application of potable water chemistry involving coagulation, softening, filtration, corrosion, disinfection quality and drinking water.

EET 3025C EN 4(3,2)
Electrical Circuits: PR: DC Circuits or EET 3035, MAC 1104 and MAC 1114, or C.I. Frequency domain and steady state analysis of electric circuits: RCL circuits, timed circuits, resonance and "Q," filters, transformers, 3-phase circuits, power relationships.

EET 3085C EN 4(3,2)

EET 3143C EN 4(3,2)

EET 3716C EN 4(3,2)

EET 4518C EN 3(2,2)
Linear Integrated Circuits: PR: EET 3716, or Consent of Coordinator. Applications of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits. Includes amplifiers, active filters, oscillators, differentiators and integrators.


EET 4349C  Electronic Communications II: PR: EET 4329C. Basic information theory, pulse and digital concepts, multiplexing, radar principles, TV systems. Technology of radiation and propagation. Fiber optics.


EET 4915C  Senior Design Project: PR: Electronics Engineering Technology senior entering anticipated graduation semester or C.I. Individual or group project involving project definition planning, development, test and evaluation. Progress reports, final oral presentation and final written report required.

EEX 2010  Introduction to Special Education: Orientation to the education of children and adolescents with special needs in the schools. The course includes characteristics, trends, mainstreaming, and other issues.

EEX 2754  Parents as Educators: Develop parental awareness of their role in child development and school success. Attention given to social context of parenting and parents as advocates for children.

EEX 3102  Language Development and Communication Disorders: PR: Junior standing. Interdisciplinary approach to language development, identification and remediation of communication and language disorders.

EEX 3221  Assessment of Exceptional Students: Formal and informal assessment techniques for screening, placement, program planning, program evaluation, and monitoring of progress of exceptional students.

EEX 3241  Methods for Academic Skills for Exceptional Students: Teaching strategies, instructional materials, and monitoring techniques for children and adolescents with special needs. Must be taken with or before Internship I.

EEX 3243  Techniques for Exceptional Adolescents-Adults: CR: EEX 3241. A study of strategies, basic and functional content, career and vocational educational, and transition planning for adolescents and adults with special needs.

EEX 3450  Young Children With Special Needs: Provides an overview of the unique field of early childhood special education, its mission, and approaches to helping young children and their families.

EEX 4601  Introduction to Behavior Management: Study of management techniques based on applied behavioral analysis principles for modifying inappropriate behaviors and maintaining appropriate behaviors of exceptional students.

EEX 4753  Parent/professional Collaboration: The special educator's role in working with families, regular educators, and other professionals in a collaborative relationship.

EEX 5051  Exceptional Children in the Schools: PR: Senior standing or C.I. Characteristics, definitions, educational problems, and appropriate educational programs for the exceptional children in schools.

EEX 5702  Planning Curriculum for Prekindergarten Children with Disabilities: Focus on curriculum planning; developmentally appropriate practices and implementation of individualized instruction for prekindergarten children with disabilities.
Communication with Parents and Agencies: Presentation of methods of interacting with community agencies, supporting and collaborating with families, developing a case management system and facilitating program transition.

Guiding Human Relationships: PR: Senior standing or basic teacher certificate. Human relationship skills which will enhance intra- and interpersonal relation skills in classrooms.

Introduction to the Engineering Profession: Overview of academic and professional requirements in various engineering disciplines.


Engineering Analysis-Statics: PR: PHY 3048; CR: MAC 3312. Fundamental concepts of mechanics, including resultants of force systems, free-body diagrams, equilibrium of rigid bodies, and analyses of structures.

Engineering Analysis-Dynamics: PR: EGN 3310; CR: MAC 3313. Kinematics and kinetics of particles and rigid bodies; mass and acceleration, work and energy impulse and momentum.


Principles of Electrical Engineering: PR: PHY 3049; CR: MAP 3302. Fundamental laws of electrical circuits and circuit analysis; fundamentals of electronics and power systems.


Engineering Analysis: PR: High-level language or equivalent (FORTRAN preferred); MAC 3312. Engineering analysis and computation using FORTRAN; engineering applications of numerical methods including curve fitting, matrix operations, root finding, integration and plotting.


Engineering and the Environment: PR: CHS 1440 and MAC 3312. Process engineering for air, energy, water, and land environment and the role of engineering in control of these environments.

Professionalism, Practice and Ethics: PR: Junior or Senior standing. Study of the professional engineer's role, practice, and responsibility to act in the interests of public health, safety, and welfare.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>EGN 4703</td>
<td>Systems Analysis and Control</td>
<td>PR: EGN 3343, 3353, 3373; MAP 3302. Analysis and design of process control systems, including first and second order systems and classical linear control theory.</td>
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<tr>
<td>EGN 4813</td>
<td>Science in History</td>
<td>PR: EGN 3343, 3353, 3373; MAP 3302. Analysis and design of process control systems, including first and second order systems and classical linear control theory.</td>
</tr>
<tr>
<td>EGN 4814</td>
<td>Technology in History</td>
<td>PR: History/Humanities sequence or C.I. Important developments in engineering and technology and their effect on society and our socio-economic processes.</td>
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<tr>
<td>EGN 4816</td>
<td>Turning Points in Engineering</td>
<td>Seminar covering major historical developments in engineering.</td>
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<tr>
<td>EGN 4818</td>
<td>Technology in North America</td>
<td>PR: History/Humanities sequence or C.I. Periods of significant technological change in North America, with emphasis on 19th and early 20th-century developments.</td>
</tr>
<tr>
<td>EGN 4823</td>
<td>Topics in Urban Development</td>
<td>Production, distribution, and consumption of various commodities. Engineering relationships to distribution, internal structure, function of urban developments, interrelationships of engineering, social, economic, and cultural phenomena.</td>
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<tr>
<td>EGN 4824</td>
<td>Energy and Society</td>
<td>Investigation of available energy forms; energy resources versus requirements in an increasingly complex technological society; possible solutions and future predictions.</td>
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<tr>
<td>EGN 4825</td>
<td>Environment and Society</td>
<td>PR: C.I. Environmental factors of importance to people's interaction with the environment; engineering and non-engineering measures to insure improvement and maintenance of environmental quality. Not for engineering students.</td>
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<tr>
<td>EGN 4830</td>
<td>Telecommunications</td>
<td>Telecommunications and its role in contemporary local, national, and international society.</td>
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<tr>
<td>EGN 4832</td>
<td>Computers, Cybernetics and Society</td>
<td>The effects of computers and the cybernetic revolution of the individual and society. Effects of positive and negative feedback on biological, technological and social systems. Computers and their interactions with the human system.</td>
</tr>
<tr>
<td>EGN 4843</td>
<td>Systems Modeling</td>
<td>PR: CGS 1060 or equivalent. Representation of man/machine systems through analytic and computer-based models. Case studies in the analysis and improvement of systems in industry, education, and government.</td>
</tr>
<tr>
<td>EGN 4844</td>
<td>Man and Machine</td>
<td>The influence and interrelationship of invention and technical progress on the evolution of social forms and institutions.</td>
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<tr>
<td>EGN 5034</td>
<td>Engineering and Public Works</td>
<td>PR: C.I. The purposes, function, and role of engineering within public works.</td>
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<tr>
<td>EGN 5035</td>
<td>Topics in Technological Development</td>
<td>PR: C.I. Selected topics in the technological development of western civilization including the weight-driven clock, steam engine, electric light, etc.</td>
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<tr>
<td>EGN 5840</td>
<td>Small Rocket Applications for Teachers</td>
<td>PR: Admission to Martin Marietta/UCF Academy. Earth and space environments, rocket propulsion, meteorological and environmental measurements, payload launch procedures, orbits and trajectories, safety, model rocket experiments, field trips, student science experiments.</td>
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<tr>
<td>EIN 3304</td>
<td>Introduction to Industrial Engineering and Management Systems</td>
<td>An overview of the issues important to the operation of an industrial or service facility.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Prerequisites</td>
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<tr>
<td>EIN 3354</td>
<td>Principles of Cost Engineering</td>
<td>PR: EGN 3613</td>
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<tr>
<td>EIN 4116C</td>
<td>Information Systems Analysis and Design</td>
<td>PR: ESI 4312</td>
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<tr>
<td>EIN 4118C</td>
<td>Industrial Engineering Applications of Computers</td>
<td>PR: FORTRAN</td>
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<td>EIN 4214</td>
<td>Safety Engineering and Administration</td>
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<tr>
<td>EIN 4305C</td>
<td>Industrial Engineering Applications in The Service Industries</td>
<td>PR: EIN 3314C, ESI 4312, ESI 4254</td>
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<tr>
<td>EIN 4333C</td>
<td>Industrial Control Systems</td>
<td>PR: ESI 4312</td>
</tr>
<tr>
<td>EIN 4364C</td>
<td>Industrial Facilities Planning and Design</td>
<td>PR: EIN 4391C, EIN 4333C</td>
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<tr>
<td>EIN 4391C</td>
<td>Manufacturing Engineering</td>
<td>PR: EIN 3314C, EGN 3365</td>
</tr>
<tr>
<td>EIN 4411C</td>
<td>Computer-Aided-Manufacturing</td>
<td>PR: EIN 4391C</td>
</tr>
<tr>
<td>EIN 4891C</td>
<td>Industrial Engineering Senior Design Project</td>
<td>PR: Senior standing</td>
</tr>
<tr>
<td>EIN 5117</td>
<td>Management Information Systems I</td>
<td>PR: C.I</td>
</tr>
<tr>
<td>EIN 5247</td>
<td>Experimental Design &amp; Taguchi Methods</td>
<td>PR: STA 3032 or ESI 4234</td>
</tr>
<tr>
<td>EIN 5248C</td>
<td>Ergonomics</td>
<td>PR: C.I</td>
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<tr>
<td>EIN 5255</td>
<td>Training Simulator Engineering</td>
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<tr>
<td>EIN 5356</td>
<td>Cost Engineering</td>
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<tr>
<td>EIN 5368</td>
<td>Materials Handling</td>
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</tbody>
</table>
EIN 5381 Engineering Logistics: Study of the logistics life cycle involving planning, analysis and design, testing, production, distribution, and support.

EIN 5388 Forecasting: PR: STA 5156. Industrial applications of forecasting methods with emphasis on microcomputer-based packages.

EIN 5399 Concurrent Engineering: PR: EIN 4411. Elements of concurrent engineering and its applications. Topics include quality function deployment, design for manufacturability and design for assembly.

EIN 5415 Tool Engineering and Manufacturing Analysis: PR: EIN 4391 or C.I. Tool materials and design, tolerance technology, theory of metal cutting, and machineability.

EIN 5602C Expert Systems in Industrial Engineering: Overview of basic concepts, architecture and construction of expert systems, in IE. Intelligent simulation training systems, case studies and problems. Laboratory exercises.

EIN 5937 ST: Taguchi's Quality by Design: Taguchi methods for design of experiments and quality improvement.

ELD 4011 Intro to Specific Learning Disabilities: Nature and needs of students with learning disabilities to include history, theories, characteristics, definitions, assessments, issues, and application of effective teaching practices.

ELD 4242 Program Planning for Specific Learning Disabilities: PR: Senior standing. Development of highly specialized techniques, curriculum materials, to be used with students with special learning disabilities.


EMA 5056 Communication for Instructional Systems: Principles of written and oral communications for instructional technologists; development of assertiveness and interpersonal skills; conducting training programs for employees; creating hard copy materials.


EMA 5106 Metallurgical Thermodynamics: PR: EGN 3343, EGN 3365C. Laws of thermodynamics, phase equilibria, reactions between condensed and gaseous phases, reaction equilibria in condensed solution and phase diagrams.

EMA 5108 Surface Science: PR: PHY 3049 and C.I. Methods of chemical and physical analysis of surfaces, with emphasis on ultra-high vacuum spectroscopics utilizing electron, ion and photon probes.

EMA 5140 Introduction to Ceramic Materials: PR: EGN 3365C. Uses, structure, physical and chemical properties, and processing of ceramic materials. Discussions will include recent developments for high technology applications.

EMA 5163 Polymer Science & Engineering: PR: EGN 3365C. Molecular structure, physical and chemical properties, preparation and processing of macromolecular materials. Discussions will include recent developments for high technology applications.


High Temperature Materials: PR: EMA 5104. Desired material properties for high temperature applications, physical metallurgy of such materials, corrosion, hot corrosion and oxidation properties, aero- and land-based gas turbine requirements.

Technologies of Instruction & Information Management: Theories and practices in utilizing instructional media and information technologies. Emphasis on new and emerging technologies and their effects on the school and media program.

Instructional Technology: A Survey of Applications: Applications of instructional technology in settings other than public schools. Survey of facilities, programs, and services in business, industry, religion, government, higher education, and medical settings.

Communication for Instructional Systems — Application: PR: EME 5056. Applications of technology, communications theory, platform skills, and instructional design to the effective presentation of training programs and instruction.

Production Techniques for Instructional Settings: Skills in producing instructional materials. Emphasis on graphic, audio, video, and photographic skills and the application of instructional and communication theories.

Media for Children and Young Adults: Survey of materials for children’s and young adult informational and recreational needs; analysis, evaluation, and utilization of print and non-print materials.

Computer Applications in Instructional Technology. Techniques and skills for the use of computers for productivity and instruction by the instructional technologist.


Thermodynamics of Mechanical Systems: PR: EGN 3343. Applied thermodynamics, availability analysis, thermodynamics of reactive and non-reactive mixtures, thermodynamic relations of properties. Thermodynamic design analysis of complete mechanical systems.

Thermodynamics & Transport Phenomena I: PR: EGN 3321 and MAP 3302. Energy and its transformations; design of engineering devices to accomplish heat and work; includes fluids and radiation and conduction heat transfer.

Thermodynamics & Transport Phenomena II: PR: EML 3401H. Energy and its transformations; design of engineering devices to accomplish heat and work; includes fluids, compressible flows, boundary layers, combustion.


Structure and Properties of Alloys: PR: EGN 3365C. Relation of properties to microstructure and applications of major ferrous and non-ferrous alloys.

Kinematics of Mechanisms: PR: EGN 3321. Graphical, mathematical, and computer-aided kinematics, analysis, and synthesis of basic mechanisms.


EML 4260 Dynamics of Machinery: PR: EML 3262, EML 4222. Critical speeds and response of flexible rotor systems, whirl, gyroscopic effects; balancing of rotating and reciprocating masses; cam dynamics.

EML 4304C Measurements Laboratory: PR: EGN 3373, EGN 3353, EGN 3331. Fundamental theory and practice of static and basic electrical dynamic measurements, transducer principles and data acquisition. Laboratory experiments conducted to reinforce thermal, fluid, and mechanical concepts.


EML 4411 Mechanical Power Systems: PR: EML 3101. Analysis and design of large power generating systems and components, with emphasis on steam plants utilizing both chemical and nuclear fuels.

EML 4501C Engineering Design I: CR: EML 4304C. Application of the design process in the team solution of a state-of-the-art problem. Aerospace, mechanical, thermo-fluid, or material problems are considered.

EML 4502C Engineering Design II: PR: EML 4501C. Continuation of the design process in the team building and testing of a prototype. A test plan and a test report are completed.

EML 4535C Computer Aided Design: PR: EML 3101, EML 3500, and EGN 3420 or equivalent. Introduction to computational methods in mechanical and thermal systems design.


EML 4703C Fluid Mechanics II: PR: EGN 3343, EML 3xxx (Fluids I). Continuation of Fluids I. External flows, fluid machinery, one-dimensional compressible flows. Experimental measurements and design problems.

EML 5060 Mathematical Methods in Mechanical and Aerospace Engineering: PR: MAP 3302. Vector field theory, generalized coordinates, complex variables, contour integration and LaPlace and Fourier transforms and inversions, variable coefficient ODE’s and solution of PDE’s for governing equations of heat transfer, ideal fluid flow, and mechanics.

EML 5105 Gas Kinetics and Statistical Thermodynamics: PR: EAS 4134 or EML 4703C. Molecular and statistical viewpoint of gases and thermodynamics; Boltzmann collision integral, partition functions, non-equilibrium flows. Applications in thermo-fluid systems.


EML 5224 Acoustics: PR: EML 4220 CR: EML 5060. Elements of vibration theory and wave motion; radiation, reflection, absorption, and transmission of acoustic waves; architectural acoustics; control and abatement of environmental noise pollution; transducers.
EML 5228C
EN 3(2,3)

EML 5237
ED 3(3,0)

EML 5245
Tribology: PR: EGN 3331, EGN 3353, EGN 3365C, or C.I. Principles of fluid film lubrication (liquid and gas, journal and thrust bearings), contact mechanics (rolling element bearings), design of bearings and load bearing surfaces, friction and wear of materials, tribotesting.
EN 3(3,0)

EML 5271
Intermediate Dynamics: Dynamics of particles, distributed mass systems, and rigid bodies from an advanced viewpoint. Virtual work. Lagrange's and Euler's equations. Hamilton's equations.
EN 3(3,0)

EML 5311
System Control: PR: EML 4312; CR: EML 5060. Modern control theory for linear and non-linear systems; controllability and observability. Linear state feedback and state estimators, compensator design.
EN 3(3,0)

EML 5402
Turbo machinery: PR: EML 3101, EML 4703 or EAS 4134. Application of the principles of fluid mechanics, thermodynamics, and aerodynamics to the design and analysis of steam and gas turbines, compressors and pumps.
EN 3(3,0)

EML 5453
Energy Analysis: PR: C.I. Examination of energy demand and potential supply, computer simulation of resource depletion, alternate energy resources, transportation systems, economic and environmental constraints.
EN 3(3,0)

EML 5532
Computer-Aided Design and Manufacture: PR: EGN 3331 and EML 3500 or C.I. Theory and application of computer algorithms for the synthesis, simulation, design and manufacture of mechanical and thermal systems.
EN 3(2,2)

EML 5533
EN 3(3,0)

EML 5546
EN 3(3,0)

EML 5572
EN 3(3,0)

EML 5713
EN 3(3,0)

EMR 4011
Intro to Mental Retardation: Nature and needs of mentally handicapped students with emphasis on etiology, prevention, identification, and application of effective practices and recognition of trends and standards.
ED 3(3,0)

EMR 4372
Curriculum Method and Materials for Retarded Persons: PR: Senior standing. Development of highly specialized techniques, curriculum and materials to be used with students with mental retardation.
ED 3(3,0)

ENC 1101
Composition I: Expository writing with emphasis on effective communication and critical thinking. Emphasizing the writing process writing topics are based on selected readings and on student experiences.
AS 3(3,0)

ENC 1101H
Honors Freshman Composition I: PR: Score of 60+ on TSWE of SAT or C.I. Same as ENC 1101, with honors-level content.
AS 3(3,0)
ENC 1102
Composition II: PR: ENC 1101 with a grade of "C" or better. Extensive writing based on critical analysis of texts, library research, and/or field research. Further exploration of the writing process included, as well as potential for writing across the curriculum.

ENC 1102H
Honors Freshman Composition II: PR: ENC 1101H with a grade of "C" or better or C.I. Same as ENC 1102, with honors-level content. Note on Freshman English Program: ENC 1101 and 1102 must be taken before enrolling in any English course numbered above 1102.

ENC 2290
Careers in Writing: An examination of career opportunities in technical writing, emphasizing industrial, commercial, and governmental opportunities.

ENC 3210

ENC 3211
Introduction to Technical Writing: Provides definition, history, rhetorical bases of technical writing and its relationship to general English studies.

ENC 3241
Technical Report Writing: PR: ENC 1102. Instruction and practice in scientific writing, including preparation of scientific reports in the student's particular field.

ENC 3263
Science and the Lay Reader: PR: ENC 3310, ENC 3311 or ENC 3341 or C.I. Analysis of lay scientific magazine articles and practice in scientific writing for the lay audience.

ENC 3310
Magazine Writing I: PR: ENC 1102. Intensive practice in description narration, exposition and argumentation; control of tone, mood, viewpoint, and level of diction. Applicable to article, essay, and short story writing.

ENC 3311
Advanced Expository Writing: PR: ENC 1102. Practice of expository writing directed to general reader.

ENC 3942
Journal — Writing Practicum: An interdisciplinary practicum in journal writing as a literary genre and a means of self-expansion.

ENC 4215

ENC 4216
Graphics Capabilities for the Technical Writer: PR: ENC 4293; to be taken concurrently with ENC 4215. Study and preparation of visuals and graphics in technical writing and documentation; use of computer graphics; slides; transparencies; charts; graphs; drawings.

ENC 4280

ENC 4293
Technical Documentation I: PR: ENC 3210 or 3341. Practice in translating highly technical information to organized documentation: hardware, software, military specifications. Theory of designing and organizing technical manuals. Preparation of proposals. Interview skills.

ENC 4294
Technical Documentation II: PR: ENC 4293. Practical application of editing theory to large ongoing projects from the student's particular field. Should be taken concurrently with ENC 4215.

ENC 4295
Technical Documentation III: PR: ENC 4294. Designing, writing, and illustrating manuals, e.g., repairs, maintenance or users. Project supervised by a member of a student's major department or technical editor of a corporation.

ENC 4341
Magazine Writing II: PR: ENC 3310 or C.I. Structure and organization of articles, essays, profiles, and reviews, market analysis; data gathering. May be repeated for credit.

ENC 5214
Production and Publication Methods: Theory and practice of production and publication methods for technical writers.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 5214</td>
<td>Production and Publication Methods: Theory and practice of production and publication methods for technical writers.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENC 5219</td>
<td>Graphics in Technical Writing: A study of the creation and editing of graphics in technical documents.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENG 3010</td>
<td>Practical Criticism: PR: ENC 1102. Student evaluation of selected fiction, poetry, and drama through practical exercises in literary criticism.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENG 3018</td>
<td>Literary Criticism: PR: Graduate standing or C.I. Historical survey of major critics from classical antiquity to the modern era.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENL 3010</td>
<td>English Literature I: PR: ENC 1102. Beowulf to 1798.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENL 3051</td>
<td>English Literature II: PR: ENC 1102. From 1798 to 1914.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 3951H</td>
<td>Orlando Shakespeare Festival Honors: PR: ENC 1102. Honors theory and practice of Shakespeare's art by performance-oriented study and participation in the Orlando Shakespeare Festival's pre-season activities and productions.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 3951</td>
<td>Orlando Shakespeare Festival: PR: ENC 1102. Involvement in theory and practice of Shakespeare's art by performance-oriented study and participation in the Orlando Shakespeare Festival's pre-season activities and productions.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENL 4101</td>
<td>English Novel: PR: ENC 1102. Analysis of major English novelists.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4220</td>
<td>English Renaissance Poetry and Prose: The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly &amp; others.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENL 4241</td>
<td>English Romantic Writers: PR: ENC 1101, ENC 1102. Study of English poets and essayists of the romantic period, including Wordsworth, Coleridge, Hazlitt, Lamb, Byron, Shelley &amp; Keats.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4251</td>
<td>The Victorian Age: PR: ENC 1101, ENC 1102. Study of poets and essayists from 1837 to 1900, including Tennyson, the Brownings, Arnold Hopkins, Carlyle, Mill, Newman.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4311</td>
<td>Chaucer: PR: ENC 1102. The Canterbury Tales, Troilus and Criseyde, and other works.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4330</td>
<td>Shakespeare Studies: PR: ENC 1102. Reading, analysis, and discussion of Shakespeare's plays. May be repeated for credit.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4341</td>
<td>Milton and His Age: PR: ENC 1102. Paradise Lost, Paradise Regained, Samson Agonistes, shorter poems and selected prose.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4353</td>
<td>18th Century Studies: PR: ENC 1102. Reading, analysis, and discussion of literature in English: 1660-1880. May be repeated for credit.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 4373</td>
<td>Modern British Literature: PR: ENC 1102. Major writers of modern British literature.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 5176</td>
<td>Restoration and 18th Century English Drama. PR: Senior standing or C.I.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 5226</td>
<td>English Renaissance Poetry and Prose: PR: Senior standing or C.I. The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly, and others.</td>
<td>AS 3(3,0)</td>
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</table>
ENL 5335: Studies in Shakespeare. PR: Senior standing or C.I. A selection of representative plays, with emphasis on Shakespeare's development as an artist: aesthetics of dramatic literature.


ENU 4103: Nuclear Engineering. PR: PHY 3101. Introduction to the principles of nuclear engineering, nuclear chain reactions, reactor systems and control, health physics, radiation shielding, and applications of nuclear energy.

ENV 4121C: Air Pollution. PR: EGN 3704, EGN 3353. Sources, causes, and effects of air pollution. Engineering design, analysis, and modeling for the control of air pollution.

ENV 4341: Solid Waste Management. PR: EGN 3704 or C.I. Engineering design, planning, and analysis problems associated with storage, collection, processing, and disposal of solid and hazardous wastes.

ENV 4433C: Water Resources Design. PR: CWR 4101C and CWR 4201C. Project course for the design of storm water and sewer transmission systems using local and state regulations.

ENV 4561: Environmental Engineering - Process Design. PR: EGN 3704 and EGN 3353. Water treatment and wastewater treatment design considerations with effluent and sludge handling, treatment, and disposal.

ENV 4562C: Environmental Engineering Systems Design. PR: ENV 4561, CWR 4201C. Project course on design of water and wastewater treatment plants.


ENV 4800: Air & Waste Design. PR: ENV 4121C, ENV 4341. Project course on design of an air pollution control system and a municipal solid waste landfill.

ENV 5071: Environmental Analysis of Transportation Systems. PR: EGN 3704, ENV 4121C or C.I. The course deals with the environmental process needed for the successful planning of transportation projects. The analysis of noise, air quality, wetlands, and other environmental areas will be covered in addition to abatement measures.

ENV 5413: Outdoor Noise Control. PR: C.I. Community noise evaluation and control, legislative standards, instrumentation and measurement, abatement methods, and noise modeling.

ENV 5505: Sludge Management Operations in Environmental Engineering. PR: ENV 4561. Theory and design of sludge management operations and processes in environmental engineering, including stabilization dewatering and ultimate disposal.


ENY 4004C: General Entomology. PR: ZOO 2010C. Introduction to insects, their identification, biology, and ecology.

EPH 5335: Physical and Sociological Implications of Handicapping Conditions. PR: EGN 4121. Student teaching in a secondary school under the supervision of a certified classroom teacher.

ESE 3940: Internship I - Secondary. PR: EDG 4321. Student teaching in a secondary school under the supervision of a certified classroom teacher.

ESE 4943: Internship II - Secondary. PR: ESE 3940 or EDE 3942. Student teaching in a secondary school under the direction of a certified classroom teacher. Scheduled concurrent seminars.
Secondary School Curriculum Improvement I: PR: Regular Certificate or C.I. Secondary School self studies for curriculum projects, accreditation reports, or staff development.


Quality Engineering: PR: STA 3032. Basic concepts and techniques of quality control; applications of statistics in industrial research; design of quality assurance systems; reliability engineering.

Operations Research: PR: STA 3032, EIN 4118C. Introduction to linear, non-linear, and dynamic programming. Decision analysis, random processes, and queuing. Course covers theory through application and implementation of results.

Quantitative Techniques in Industrial Engineering: PR: EGN 4634 and STA 3032. Extension of EGN 4634 and STA 3032, with primary emphasis on O.R. and statistical applications to industrial engineering problems.

Systems Simulation: PR: STA 3032, EIN 4118C. Methods and procedures for simulating large-scale systems with digital computers. FORTRAN and simulation languages are used.

Microcomputer Practicum: PR: Graduate standing or C.I. Survey of personal computer programming and use in decision support applications in engineering.

Reliability Engineering: PR: ESI 4234, or equivalent or C.I. Reliability theory and modeling approaches. Topics include: failure data analysis, maintainability, reliability standards (DOD), software reliability, reliability in design, and electronic systems reliability.

Operations Research: PR: STA 3032. Methods of operations research, including formulation for models and derivation of solutions; linear programming, network models queueing theory, simulation, and nonlinear optimization techniques.

Network Based Project Planning, Scheduling and Control: PR: ESI 4312 or ESI 5316. Probabilistic and deterministic approaches for planning, scheduling, and controlling complex, large scale projects. PERT, CPM, resource leveling, risk analysis.

Discrete Systems Simulation: PR: STA 3032, CGS 3422. Methods for performing discrete systems simulation, including network modeling will be treated.

Metrology and Instrumentation: PR: ETG 3541 or equivalent; EET 3035C or equivalent; and MAC 3253 or equivalent. An introduction to the basic concepts and terminology of metrology and instrumentation. Theory, procedures and techniques essential to industrial measurement and laboratory practice are covered.


Construction Contracts and Specifications: PR: ENC 3241. The role of construction contracts, architectural specifications, product specifications, industry standards and building codes in the process of building construction.


Applied CADD: PR: Engineering Drawing and some CADD background. This course in computer-aided drafting/design provides the student with the opportunity to approach detailed and intricate drafting/design problems from a computer perspective.

Strength of Materials: PR: ETG 3541. Relationship between external forces and action of members of a structure. Topics include stress, shear, moment, deflections, columns, connections, and Mohr’s circle.

Senior Design Project: PR: ETG 3541, EST 4502C, ETG 4530C or C.I. Engineering Technology senior within 18 semester hours of graduation. Supervised individual or group projects involving project definition, planning, development, testing, and evaluation. Progress reports and a final oral presentation and formal written report are required.

Materials and Processes: PR: MAC 1104 and MAC 1114 or equivalent; Chemistry. A study of fundamental properties of materials. Current industrial practices in founding, forming, joining and shaping processes.

Product Design: Principles of layout and dimensions for production. Consideration of design factors, standards, specifications, and codes, with emphasis on productability.

Computer Applications: PR: COP 1200 or equivalent. Application of high-level program packages to solve problems in industrial practices.


Technical Sales: Application of technical knowledge to sales and service. Relationship of technical sales organization to production, customers, and competitors.


Applied Reliability: PR: ETI 4110. Practical application of reliability concepts and analysis applicable to the design, production and logistics phases of systems and system components.

Applied Logistics: PR: ETI 4110 or C.I. Introduction to logistics. Emphasis on practical applications. Includes systems engineering, cost/systems effectiveness, reliability, maintainability, system functional analysis, logistic support analysis, life cycle cost analysis.


Technology Administration: PR: Junior standing. Techniques of applying management principles to professional positions held by Engineering Technologists. Management functions of planning, organizing, motivating, and controlling, production, sales, and service.

Process Planning and Work Measurement: PR: MAC 1104 and COP 3200 or equivalent. Scheduling techniques (PERT), (CPM), are presented. Time Study Methods, Work Sampling and MTM are covered.

Applied Facilities Planning and Design: PR: Engineering drawing and senior standing. The design of manufacturing facilities and material handling systems.

Occupational Safety: PR: Junior standing. Accident prevention and the operation of an industrial safety program. Basic requirements of the Occupational Safety and Health Act standards.

Applied Energy Systems: PR: MAC 3253 or equivalent; Chemistry; College Physics. Introduction to energy, work, and thermal systems and processes. Applications of heat energy with emphasis on solar energy.

Applied Heat Transfer: PR: ETG 3541 or equivalent, MAC 3253 or equivalent. An introduction to the basic concepts and applications of conduction, convection and radiation heat transfer. Basic energy balances and their applications are emphasized. Study state and transient phenomena are evaluated, including numerical solutions.

Applied Fluid Mechanics: PR: MAC 3253 or equivalent; Physics 3053C or equivalent. An introduction to the basic concepts of hydrostatics and hydrodynamics covering fluid statics, flow of ideal fluids, continuity of mass, impulse and momentum principles, conservation of energy, flow of fluid in pipes, etc.
ETM 4403C  
Applied Kinematics: PR: ETG 3541 and Engineering Drawing. Analysis and design of machine elements and mechanisms involving velocities and accelerations of components, linkages, gears, and cams.

ETM 4512C  

ETM 4755  
Applied Air Conditioning: PR: ETM 4331. Analysis of body comfort, psychometrics, heating and cooling load, specification of air conditioning systems, air distribution systems and system piping requirements.

EUH 2000  
Western Civilization I: A survey of western civilization from ancient to 1648.

EUH 2000H  
Honors Western Civilization I: Same as EUH 2000 with honors-level content.

EUH 2001  
Western Civilization II: PR: EUH 2000 or C.I. A survey of western civilization from 1648 to present. May be taken before EUH 2000.

EUH 2001H  
Honors Western Civilization II: Same as EUH 2001 with honors-level content.

EUH 3122  
Medieval Society and Civilization: PR: EUH 2000 and 2001 or C.I.

EUH 3142  
Renaissance and Reformation: PR: EUH 2000 and 2001 or C.I. Influence of Renaissance humanism on arts, letters, and politics; Luther and Protestantism; the Catholic Counter-Reformation and the Thirty Years' War.

EUH 3235  
Romanticism and Realism: PR: EUH 2000 and 2001 or C.I. Napoleon and nationalism; new ideas; conservation; liberalism; romanticism; republicanism and socialism; urbanization, technology and mass culture, religious decline; Realpolitik, racism, imperialism, and militarism.

EUH 3242  
Modern Europe and the First World War: A survey of the impact of the democratic institutions, education, transportation, housing, health, mass communications, entertainment, women, and warfare.

EUH 3281  
Second World War and Rebirth of Europe: PR: EUH 2000 and 2001 or C.I. Origins of World War II; Hitler's "New Order," and resistance movements; Cold War; de-Stalinization of Russia; Sovietization of East Central Europe; Western reconstruction, and prosperity.

EUH 3411  

EUH 3651  
War and Society: Evolution of weapons, tactics, strategy; role, social status, recruitment of soldiers; influence of military on governments; and international efforts to preserve peace.

EUH 4284  
Fascism and the Totalitarian Dictatorships: PR: EUH 2000 and 2001 or C.I. Totalitarian ideologies, institutions, and practices in Lenin's and Stalin's Russia, Mussolini's Italy, and Hitler's Third Reich; fascist movements in the non-totalitarian states.

EUH 4465  
Hitler's Third Reich: PR: EUH 2000 and 2001 or C.I. German nationalism and militarism; World War I and Versailles Treaty; the Weimar Republic and the rise of the Nazis; Second World War, division and recovery.

EUH 4500  
English History to 1485: PR: EUH 2000 and 2001 or C.I.

EUH 4501  
English History: 1485-1815: PR: EUH 2000 and 2001 or C.I.

EUH 4502  
British History: 1815-Present: PR: EUH 2000 and 2001 or C.I.

EUH 4571  
History of Russia to 1801: PR: EUH 2000 and 2001 or C.I. Kievian State; Mongol Yoke; Development of Muscovite Expansionism and Absolutism; Time of Troubles; Westernization of Russia under Peter I and Catherine; Role of Orthodox Church.
EUH 4574
History of Russia: 1801-1917: PR: EUH 2000 and 2001 or C.I. Alexander I; Napoleonic Invasion, Revolutionary Movement; Russian Policy toward Central Asia and China; Great Reforms; Russo-Japanese War; Revolution of 1905; Constitutional Period, Triple Entente.

EUH 4576
History of the Soviet Union: 1917-Present: PR: EUH 2000 and 2001 or C.I. First War; 1917 Revolutions; Civil War; New Economic Policy; Stalin-Trotsky Struggle; Collectivization; Stalinist Purges; Second War; Post-Stalin Russia; Khrushchev; Sino-Soviet Relations.

EUH 4620
European Great Powers: 1815-1914: PR: EUH 2000 and 2001 or C.l. Congress of Vienna, Metternich's system Crimean War, unifications of Italy & Germany, the Bismarckian era, the alliance systems, and the outbreak of World War I.

EUH 4621

EUH 5247
Colloquium in Europe, 1919-1939: PR: Senior standing or C.I. Selected topics in the historical literature of Europe from the Paris Peace Conference to the outbreak of the Second World War.

EUH 5517
Colloquium in Tudor-Stuart England: PR: Senior standing or C.I. Intensive reading and class discussion on selected topics during the Tudor-Stuart era.

EUH 5579
Colloquium in Soviet Russia: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics in Russian history, 1911-present.

EUH 5595
Colloquium in Czarist Russia: PR: Senior standing or graduate status. Selected topics on the literature of Russia under the Czars prior to 1917.

EUH 5608
Colloquium European Intellectual History: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics of European intellectual history.

EVS 4795
Air Pollution Control: Fundamental techniques applicable to analyzing composition and sources of pollutants, measuring concentrations, and controlling emissions. Air pollution control programs, laws, rules, and regulations.

EVT 3062
Professional Role of the Vocational Teacher: PR: EVT 3371 or C.I.

EVT 3312
Course Construction in Health Occupations Education: PR: EVT 3365 or C.I. Planning and preparation of materials, managing the laboratory and involvement in appropriate Vocational Student Organizations. Clinical instruction related to vocational education and industry training.

EVT 3365
General Methods/Testing Evaluation in Vocational Education: General teaching methods, testing and evaluation. Techniques specific to Vocational Education and Industry Training.

EVT 3367
Evaluation of Vocational Instruction: PR: EVT 3371 or C.I. Study, practice, and achievement of competency in assessing student cognitive, affective, and psychomotor performance in vocational education.

EVT 3371
Course Construction in Industrial Education: PR: EVT 3365 or C.I. Planning and preparing instructional materials, organizing and managing the Industrial Education laboratory, and involvement in VICA.

EVT 3502
Special Needs of Vocational Students: PR: EVT 3365 or C.I. Achievement of teacher competency in meeting the special needs of the handicapped, culturally different, slower learner, those with basic skill deficiencies, and those in non-traditional programs.

EVT 3815
Management of the Vocational Classroom and Laboratory: PR: EVT 3371 or C.I. Organization and management of school facilities for instructional purposes and skill in providing for student health and safety.

EVT 4065
EVT 4169
Curriculum Development Techniques for Industry Training: The practical application of fundamental knowledge, important skills, alternative analysis methods, and the critical elements of the trainers analysis tasks.

EVT 4368
Advanced Teaching Techniques for Vocational Education: PR: EVT 3365 or C.I. Study, practice, and achievement of techniques including cooperative learning, simulation, instructional modeling and evaluation of instructional effectiveness.

EVT 5260
Cooperative Programs in Vocational Education: PR: Regular Certificate or C.I. Study of cooperative vocational programs and achievement of competencies needed to establish, manage, and coordinate co-op program activities in all vocational areas.

EVT 5315
Applied Clinical Teaching Techniques in Vocational Education: PR: Regular Certificate or C.I. Study and practice of clinical teaching methods, development of student performance assessment instruments, planning clinical learning experiences and record keeping.

EVT 5316
Clinical Coordination for the Health Occupations Teacher: PR: Regular Certificate or C.I. Development of clinical guidelines, resources, student schedules, and risk-management programs. Includes negotiating clinical contractual agreements and planning field supervision.

EVT 5561
Student Guidance in the Vocational Program: PR: Regular Certificate or C.I. Achievement of skills used by teachers as they gather student data, confer with students, and help students plan for employment or further education.

EVT 5564
Student Vocational Organizations: PR: Regular Certificate or C.I. Competencies needed by vocational teachers as they establish and supervise student vocational organizations in secondary and postsecondary schools.

EVT 5817
Management of Vocational Programs: PR: Rank III Certificate or C.I. Study and achievement of selected competencies needed by vocational teachers, supervisors, and local administrators in the management of vocational education programs in the schools.

EXP 3204C

EXP 3304

EXP 3404
Basic Learning Processes: PR: PSY 2013 and PSY 3214. Theories and research findings from basic laboratory investigation of learning phenomena. Lecture/Lab.

EXP 3513C

EXP 5208
Sensation & Perception: PR: C.I. A study involving the human information processing with regard to physical and psychological variables in sensory and perceptual phenomena.

EXP 5255
Human Performance: PR: C.I. Human performance dimensions and concepts of assessment of human capabilities; performance acquisition, information processing and decision-making; applications of principles to understanding of stress and performance effectiveness.

EXP 5256
Human Factors I: Survey of human factors literature. Introduction to topics including human capabilities and human interfaces with human-machine systems.

EXP 5445
Psychology of Learning and Motivation: PR: DEP 5057 or C.I. Examination of theories and research concerning the acquisition and retention of behavior, as well as motivational factors which influence learning and behavior.

EXP 5506

FIL 3100
Introduction to Scriptwriting: PR: Admission to Film program. Rudiments of scriptwriting, including visual storytelling, story structure, character, dialogue, and introduction to scriptwriting software.

284
FIL 3200  AS 3(2,4)
Introduction to Film Production: Introduction to production utilizing film equipment. Basic technical and aesthetic aspects of production.

FIL 3231 AS 3(2,4)
Introduction to Computer Animation: PR: FIL 3242. Introductory computer graphic techniques utilizing microcomputer systems. Techniques include basic paint systems, color cycling and 2D animation.

FIL 3232 AS 3(2,4)
Intermediate Computer Animation: PR: Intro To Computer Animation. Focus on 3D computer modeling and animation systems. Hands-on exercise on the type of high-end animation systems used in the film industry.

FIL 3242 AS 3(2,3)
Introduction to Cel Animation: PR: Major status. Introduction to traditional cel animation. Drawing skills required.

FIL 3300 AS 3(3,0)
Film Documentary: The uses and analysis of the non-fiction film.

FIL 3400 AS 3(2,2)
History of Motion Pictures: The history of motion pictures as art and industry; from 1895 to the present.

FIL 3410 AS 3(3,0)
History of Animated Films: Survey from early animators to the development of the cartoon industry. Television animation included.

FIL 3503 AS 3(3,1)
Film Theory: PR: Major status only. A historical survey of the major film theories, Munsterberg through Metz.

FIL 3521 AS 3(3,0)
French Film: The study of French cinema as an art form and the key role of the director. Films are analyzed from structural, social, economical, and historical perspectives with attention to their relationship with French literature. Taught in English.

FIL 3522 AS 3(3,0)
German Film: PR: C.I. Exploration of the form and context of German film during different time periods in relation to other aspects of culture and to sociopolitical structures at the time.

FIL 3922 AS 1(1,1)
Film Colloquium: PR: Admission to the film program. A series of lectures, films and forums designed for students in the film program. The class is team taught by film faculty and guest speakers from the film industry. S/U Grade ONLY. Course may be repeated.

FIL 4102 AS 3(2,3)

FIL 4103 AS 3(2,3)

FIL 4104 AS 3(2,3)
Scriptwriting Workshop: PR: FIL 3100. Writing workshop for experienced scriptwriters, cold readings, preparing calling card script, marketing scripts and funding sources.

FIL 4201 AS (2,4)

FIL 4202 AS 3(2,4)
Advanced Film Production: PR: FIL 3200, 4201. Intensive tutorial guidance, instruction and evaluation of final film projects from initial concept through production.

FIL 4203 AS 3(2,4)
Film Production Workshop: PR: FIL 3200, 4201. Intensive tutorial guidance, instruction and evaluation of final film projects from post-production through release print.

FIL 4208 AS 3(3,0)
Film Directing: PR: FIL 4201. Principles and practice in directing narrative and documentary motion pictures.

FIL 4210 AS 3(2,4)

FIL 4220 AS 3(3,0)
FIL 4230  Intermediate Cell Animation: PR: Major status-FIL 3242. Production from storyboard to composite print.

FIL 4233  Advanced Computer Animation: PR: FIL 3231 and FIL 3232. Advanced 3D modeling and animation techniques. Working in small production teams, students will create short animated segments using a high-end 3D animation system.

FIL 4234  Computer Animation Workshop: PR: FIL 3231, FIL 3232, FIL 4233, or C.I. A production level course in computer animation that emphasizes all phases of the commercial production process, including storyboard, budgets, client relations, and post-production.

FIL 4250  Post-Production Workshop: PR: FIL 4201. This class will provide students with a thorough understanding of the process of producing in film and posting on state of the art equipment.

FIL 4293  Advanced Cel Animation: PR: Major status, FIL 4230. Production from storyboard to composite print from pre-recorded sound track.

FIL 4294  Cel Animation Workshop: PR: Major status, FIL 4293. Production from storyboard to composite print from pre-recorded sound track.

FIL 4504  Motion Picture Genre/Aesthetics: PR: FIL 3503. Analysis and evaluation of films; major genres, directors, styles, or periods considered in depth.

FIL 4600  The Film Producer: PR: FIL 4208. The role of the producer is examined in the context of theatrical film.

FIL 4601  Production Management: PR: FIL 3200. Reproduction, budgeting, script breakdown, construction of production boards, scheduling, location scouting, and crew procurement.

FIL 4942  Animation Workshop: PR: FIL 4230, FIL 4231. An intensive study of various film animation techniques under the tutelage of professional animators.

FIN 3100  Personal Finance and Investments: PR: Junior standing. Fundamentals of managing and investing one's money and acquiring, safeguarding, and disposing of one's assets. Not usable for credit by Finance majors.


FIN 3403  Business Finance: PR: ACG 2021, ACG 2071, (or ACG 2023), ECO 2013 and ECO 2023. With the balance sheet as a reference point, this course provides an introduction and overview of the acquisition, financing, and management of business assets.

FIN 3404  Intermediate Corporate Finance: PR: FIN 3403. In-depth study of the principles of corporate finance. Investment, financing, and capital decisions are examined.

FIN 3453  Financial Models: PR: FIN 3403, PR or CR: FIN 3404. Mathematical models applied specifically to financial problems, including those models suitable for representation and solution on computers.


FIN 4127  Employee Benefits and Retirement Planning: PR: FIN 3403. This course considers the process of establishing specific financial objectives at various stages of life and how those objectives can be reached.

FIN 4324  Management of Financial Institutions: PR: FIN 3303 and FIN 3403. Analysis of management policies of financial institutions, including asset, liability, and capital management. The economic and regulatory influence on competition is considered.

FIN 4424  Advanced Topics in Financial Management: PR: FIN 3404 and FIN 3453. Advanced study in financial management. Topics include capital budgeting, financial structure, and capital decisions. Case studies used extensively.
FIN 4503 Speculative Financial Markets: PR: FIN 3303 and FIN 3504. Study of options, futures, forward, and other speculative markets. Investments traded in these markets are examined analytically. Pricing and hedging models are considered.

FIN 4514 Portfolio Analysis and Management: PR: FIN 3303 and FIN 3504. Portfolio and capital market theory in the determination of rational investment policies. Risk analysis, portfolio analysis, and evaluation techniques.

FIN 4604 International Financial Management: PR: FIN 3303, FIN 3404 and FIN 3504. Analysis of the foreign financial methods and investment, currency futures market, capital budgeting, cash management, examination of Eurocurrency market and international bond markets.

FIN 5405 Financial Concepts: PR: Acceptance into the graduate program, ACG 5005 and ECO 5005 and ECO 5415 or equivalents. Effects of financial decisions upon the firm, interrelationships of these effects and alternatives available to financial managers in making these financial decisions.

FLE 3063 Foreign Language as Human Behavior: PR: Or CR: LIN 3010 or C.I. Nature of language, language learning, and teaching basic skills. Weekly laboratory.

FLE 4360 Foreign Language Instructional Programs: EDG 4321. Objectives for curriculum and methods and materials for teaching foreign language in middle grades and high school.

FOL 3730 Romance Philology: The study of the major Romance Languages and their origins as they developed from Classical and Medieval Latin to their linguistic influences such as Arabic and Provencial.

FRE 1005 French Diction: This course is especially designed for music and voice students, with an emphasis on musical terms, French songs, and opera libretti.

FRE 1120 Elementary French Language and Civilization I: Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.

FRE 1121 Elementary French Language and Civilization II: PR: FRE 1115, FRE 1120 or experience with this language. Continuation of FRE 1120.

FRE 2200 Intermediate French Language and Civilization I: PR: FRE 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

FRE 2201 Intermediate French Language and Civilization II: PR: FRE 2200 or equivalent. Continuation of FRE 2200 with emphasis on French civilization.

FRE 2240 Intensive French Conversation: PR: One year of French or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.


FRE 3244 French Conversation: PR: FRE 2201 or equivalent. Development of skills in conversation and comprehension. This course may be repeated for credit. When repeated, credit will apply to general electives only.

FRE 3420 French Composition: PR: FRE 2201 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.

FRE 3440 Business French I: PR: Three semesters of French language. Introduces vocabulary and terminology in various French business activities, as well as standards, procedures, and practices of the French business world.

FRE 4421 Advanced French Conversation: PR: FRE 3244. Advanced conversation on directed topics from various disciplines. Literature, art, psychology, philosophy, music, business, and the sciences.

FRE 4422 Advanced French Composition: PR: FRE 3420. Readings and written limitations of modern literary styles in the form of themes, sketches, poems, and original stories.
FRE 4500
French Civilization and Culture: PR: FRE 3244 or FRE 3420. A survey analyzing development of key elements of French life: its historical, artistic, intellectual, scientific, spiritual contributions to the world via readings, lectures, films, and other media. Conducted in French.

FRE 4780
French Phonetics and Diction: PR: FRE 3244 or equivalent. French phonology, with emphasis on phonetic groupings.

FRW 3100
Survey of French Literature I: PR: FRE 2201 or equivalent. Main literary currents and works from the Middle Ages through the 18th century.

FRW 3101
Survey of French Literature II: PR: FRE 2201 or equivalent. Main literary currents and works of the 19th and 20th centuries.

FRW 3370
Short Stories of 18th, 19th and 20th Centuries: PR: FRE 2201 or equivalent. Selected readings designed to increase reading speed and develop analytical abilities. Authors include: Voltaire, Maupassant, Flaubert, Camus, and others.

FRW 3740
The French Literature of Canada: PR: FRE 2201 or equivalent. A survey of the French literature of Canada from the late 19th century to the presents, with particular emphasis on the novel and short story.

FRW 4281

FRW 4310
Seventeenth Century French Theatre: PR: FRW 3100. Corneille, Racine, and Moliere. A study of the lives and principal works of the authors.

FRW 4324

FRW 4440

FRW 4532

FRW 4552

FRW 4820
Stylistics: PR: FRED or equivalent. An intense study of textual criticism. An examination of the relationship between language and literature; explications and linguistic analysis of literary texts.

FSS 2202C
Food Production Techniques: PR: HFT 1000. Basic principles of menu planning, food and beverage preparation and service. Laboratory work.

FSS 3120
Quantity Food Purchasing: PR: Junior standing, HFT 3540 or C.I., FSS 2202C. The purchasing procedures, specifications, and controls of food products in the hospitality industry.

FSS 3232
Quantity Food Management: PR: Junior standing, HFT 3540 or C.I., FSS 2202C. Management of food production in institutions, quality control, recipe standardization, portion and cost control, menu planning.

FSS 3232C
Intermediate Techniques of Food Production: PR: HFT 3540 or C.I., FSS 2202C. An advanced food production course which provides the student the opportunity to develop skills in pantry, garde manager, garnishing, and convenience foods and services. Laboratory class.

FSS 3241C
Classical Cuisine/Volume Feeding: PR: HFT 3540 or C.I., FSS 3223. Provides the student with production and managerial experience in the area of world renowned traditional dishes, lecture, demonstration; and actual preparation of menu items.

FSS 3301

FSS 4226
Sanitation in the Food Service Industry: PR: HFT 3540 or C.I., FSS 3223. The causes and prevention of food spoilage and food-borne illnesses. Certification through NIFI and ETS are both USDA approved.
FSS 4284C
Catering and Banquet Organization: PR: HFT 3540, FSS 2202C. Methods and procedures for successful on and off premise catering functions. Emphasis on food and beverage preparation, menu planning, service and sales techniques. Laboratory class.

GEA 4206
Physical Geography of North America: Analysis of the North American landscape as affected by climate, vegetation, and geomorphology.

GEB 3004
Management: PR: Junior standing. The interdisciplinary application of the managerial functions of planning, organizing, leading, and controlling. For Non-Business Major ONLY.

GEB 3031
The Cornerstone Course: An orientation to opportunities and challenges facing managers in contemporary business organizations. Introduces competencies of team work, communication, creative thinking, and adapting to change.

GEB 4361
Business in the International Environment: PR: FIN 3403, MAR 3023, MAN 3025. Provides an overall understanding of the nature, magnitude, and importance of the international business sector.

GEO 1200
Physical Geography: Basic physical elements of geography, including climate, landforms, soils, natural vegetation, minerals, and their integrated patterns of world distribution.

GEO 1200L

GEO 3370
Resources Geography: Analysis of basic principles and problems associated with development, use, conservation, and management of natural resources, with special emphasis on the United States.

GEO 3370H
Resources Geography (Honors): Analysis of human management of global resources and the resulting impact on the world's environment.

GEO 3470
World Political Geography: Analysis of factors which affect power relations among nations, including area, location, political styles, ethnic divisions, and the politics of energy.

GER 1005
German Diction: This course is especially designed for music and voice students, with an emphasis on musical terms. German songs, and opera libretti.

GER 1120
Elementary German Language and Civilization I: Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.

GER 1121
Elementary German Language and Civilization II: PR: GER 1115, GER 1120 or equivalent. Continuation of GER 1120.

GER 2200
Intermediate German Language and Civilization I: PR: GER 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

GER 2201
Intermediate German Language and Civilization II: PR: GER 2200 or equivalent. Continuation of GER 2200 with emphasis on German civilization.

GER 2210
Beginning German Conversation: PR: One year of German or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.

GER 3240
Intermediate German Conversation: PR: GER 2201 or equivalent. Development of skills in conversation and comprehension through practice.

GER 3420
Intensive German Composition: PR: GER 2201 or equivalent. Development of skills in composition.

GER 3440
Business German I: PR: GER 2200. Introduction into German business language and practices.

GER 3441
Business German II: PR: GER 3440. Continuation of Business German I.
GER 4510 Life and Culture in Nazi Germany: PR: C.I. Confrontation with the development of national socialist ideas and their realization in everyday life and culture. Given in German.

GER 4520 Modern Germany: An introduction to the history of postwar Germany — from the two Germanies to unification and today’s Germany. Given in German.

GEW 3100 Survey of German Literature I: PR: GER 2201 or equivalent. Main literary currents and works from the Middle Ages through the 19th Century Romanticism.

GEW 3101 Survey of German Literature II: PR: GER 2201 or equivalent. Main literary currents and works from 19th Century Realism to the present.

GEW 3370 Short Story: PR: GER 2201 or equivalent. German short prose works of the 19th and 20th centuries.

GEW 3480 German Post-War Literature: PR: GER 2201. This course examines the work of German, Austrian and Swiss writers after World War II.

GEW 4482 German Children’s Literature: PR: GER 2200. A look into the history of German children’s literature with a concentration on work after World War II.

GEW 4531 The Age of Goethe and Schiller: PR: GER 2201. Selected texts of Goethe and Schiller are examined, with particular attention to their relationship to both German classicism and German romanticism.

GLY 1030 Geology and its Applications: Geologic principles, applications, and hazards including: gemstones, rock cycle, moving continents, mountain building, metal ores, fossil fuels, groundwater, sinkholes, beach erosion, landslides, earthquakes, tidal waves, volcanism.

HBR 1120 Elementary Modern Hebrew Language and Culture I: Designed to initiate the student to the major language skills; listening, speaking, reading and writing, as well as to constitute an introduction to Israeli culture.

HBR 1121 Elementary Modern Hebrew Language and Culture II: PR: HBR 1120 or equivalent. Continuation of HBR 1120.

HBR 2200 Intermediate Modern Hebrew I: PR: HBR 1121 or equivalent. Designed to continue the study of Modern Hebrew; increase proficiency in conversation, reading and writing skills, and further expose students to Israeli culture.


HBT 3220 The Israeli Short Story in Translation: Israeli experience as reflected in contemporary stories read in translation. Selected stories by Agnon, Hazaz, Yizhar, Appelfeld, and others will be read and analyzed.

HFT 1000 Introduction to the Hospitality and Tourism Industry: An orientation to the hotel, restaurant, and travel industry, and its history, structure, and operating procedures.

HFT 2252 Rooms Division Management: PR: HFT 1000. Practices and systems utilized in the operational management of the front office, reservation, and housekeeping in hotels/motels.

HFT 2750 Fundamentals of Conventions and Conferences: PR: HFT 1000. An orientation to convention management field. Designed to illustrate the importance of conventions, meeting, and trade shows to the hospitality industry.

HFT 3313 Hospitality Physical Plant Management: PR: HFT 3540 or C.I. Analysis of operational problems related to the physical plant and structure of enterprises in the hospitality industry.

HFT 3444 Management Information Systems: PR: HFT 3540 or C.I. Analysis, design and implementation of specialized information systems for lodging, food service and travel operations. Special emphasis is placed on implications for management organization, planning, and control of such systems in the hospitality environment.
HFT 3540 BA 3(3,0)
Guest Services Management: CR: Junior standing, MAN 3025, MAR 3023. The study of making decisions from the guest’s point of view in the hospitality industry.

HFT 3600 BA 3(3,0)
Legal Environment in the Hospitality and Tourism Industry: PR: HFT 3540 or C.I. Principles of law as related to the Hospitality/Tourism Industry.

HFT 3700 BA 3(3,0)
Travel and Tourism Administration: PR: HFT 3540 or C.I. Foreign and domestic tourism supply and demand, economic impacts, organization of tourism, social and cultural aspects.

HFT 3751 BA 3(3,0)
Convention and Conference Operations: PR: HFT 3540 or C.I. HFT 2750 (Fundamentals of Conventions and Conferences) provides an in-depth understanding of the multiple facets of on-site operations associated with effective convention and conference planning and management.

HFT 3931 BA 1(1,0)
Hospitality Guest Lectures: PR: HFT 3540 or C.I. A series of 14 lectures by prominent hospitality practitioners intended to expose students to various aspects of the Hospitality/Tourism industry.

HFT 3949 BA 1-5(0,1-5)
Cooperative Education: Provides paid, pre-professional work experience related to the students’ major while they continue to attend school. Requires achievement of major-related learning objectives.

HFT 4210 BA 3(3,0)
Hospitality Human Resources Development: PR: HFT 3540 or C.I. Proven training systems and personnel development methods for hospitality industry employees are presented. Specific applications of alternative methodologies are identified.

HFT 4250 BA 3(3,0)
Hotel-Motel Management and Operations: PR: HFT 3540 or C.I. A study of the organization and operations of hotel/motels and their various departments with emphasis on techniques and tools of management in the industry.

HFT 4343 BA 3(3,0)
Hospitality Facilities Planning and Design: PR: HFT 3540 or C.I., HFT 3313. Principles of facility planning layout and design that maximize efficiency in hospitality operations.

HFT 4420 BA 3(3,0)
Profit Planning and Decision-Making in the Hospitality Industry: PR: HFT 3540 or C.I. Emphasizes the use of financial statement data in the decision-making process relative to short-term financial goals in the hospitality industry environment.

HFT 4473 BA 3(3,0)
Hotel Development Analysis: PR: HFT 3540 or C.I., HFT 4420. Review of methodological operation, financial, and marketing aspects of analyses for hotel development projects.

HFT 4503 BA 3(3,0)
Hospitality and Tourism Marketing: PR: HFT 3540 or C.I., MAR 3023. The application of marketing concepts to the Hospitality and Tourism Industry. Special emphasis on marketing planning and strategic marketing.

HFT 4717 BA 3(3,0)
Tourism Planning and Development: PR: HFT 3540 or C.I., HFT 3700. Analysis and review of physical, economic, social, and environmental planning techniques used in tourism destination development.

HFT 4722 BA 3(3,0)
Travel Agency Management: PR: HFT 3540 or C.I., HFT 3700. The trends operation management procedures and practices of travel agents. Emphasis on tools utilized in agency operations.

HFT 4735 BA 3(3,0)

HFT 4752 BA 3(3,0)
Convention Promotion and Public Relations: PR: HFT 3540 or C.I. Introduces specific concepts related to marketing conventions and meetings. Also considers destination marketing and telemarketing concepts in relation to convention management.

HFT 4753 BA 3(3,0)
Convention and Conference Services: PR: HFT 3540 or C.I. Provides an in-depth understanding of the acquisition and management of services (food and beverage, audio visual, transportation, etc.) integral to effective convention and conference operations.

HFT 4754 BA 3(3,0)
Exhibit and Trade Show Operations: PR: HFT 3540 or C.I. Provides an in-depth study of exhibit and trade show operations. Focuses on both supply and demand pertaining to exhibits and trade shows.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Department</th>
<th>Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFT 4860</td>
<td></td>
<td>Beverage Management</td>
<td>PR: HFT 3540 or C.I. The origin production, storing, marketing, and control of beverages in the hospitality industry.</td>
</tr>
<tr>
<td>HFT 4949</td>
<td></td>
<td>Cooperative Education</td>
<td>Provides paid, pre-professional work experience related to the students' major while they continue to attend school. Requires achievement of major-related learning objectives.</td>
</tr>
<tr>
<td>HIS 4150</td>
<td></td>
<td>History and Historians</td>
<td>PR: C.I. A study of European and/or American historiography. May be repeated once for credit.</td>
</tr>
<tr>
<td>HIS 4970</td>
<td></td>
<td>Senior Thesis</td>
<td>Original research paper available to advanced history majors, topics to be selected in consultation with a directing professor.</td>
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<tr>
<td>HLP 4722</td>
<td></td>
<td>Teaching Elementary School Health and Physical Education</td>
<td>PR: Admission to Phase II or C.I. Organization, practice, and conduct of health (including drug abuse) and physical education programs in the elementary school. Includes field experience.</td>
</tr>
<tr>
<td>HMW 3200</td>
<td></td>
<td>Readings in Modern Hebrew Literature</td>
<td>PR: 2 years of Hebrew or equivalent.</td>
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<tr>
<td>HSA 3122</td>
<td></td>
<td>U.S. Health Care Systems</td>
<td>PR: Major or minor in College of Health or C.I. A survey of the economics, social, and political aspects of the health care system in the United States.</td>
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<tr>
<td>HSA 3170</td>
<td></td>
<td>Health Care Finance</td>
<td>Budgeting; resources for funding current and long-term assets; cost and cost behavior; prospective payment; DRGs as reimbursement base.</td>
</tr>
<tr>
<td>HSA 3210</td>
<td></td>
<td>Long Term Care Administration</td>
<td>Current financing mechanisms and proposed solution, and the impact of government regulation or the operation of long-term care facilities.</td>
</tr>
<tr>
<td>HSA 4120</td>
<td></td>
<td>Community and Public Health Sciences</td>
<td>History and philosophy of public health, interphase of governmental, voluntary, and private health agencies; current community health problems, issues, and needs; social and economic factors.</td>
</tr>
<tr>
<td>HSA 4121</td>
<td></td>
<td>History and Future of Health Care</td>
<td>Health care institutions; purposes of health agencies, organizations and allied health professionals; new trends in health care delivery. Designed for non-majors.</td>
</tr>
<tr>
<td>HSA 4160</td>
<td></td>
<td>Organization and Management for Health Agencies</td>
<td>PR: STA 2014 and Major or Minor in College of Health or C.I. Organization and management of health agency organizations and management procedures.</td>
</tr>
<tr>
<td>HSA 4180</td>
<td></td>
<td>Organization and Management for Health Agencies</td>
<td>PR: C.I. Health Safety laws/rules; community inter-relationships; liability insurance types/contracts; malpractice.</td>
</tr>
<tr>
<td>HSA 4502</td>
<td></td>
<td>Risk Management Systems</td>
<td>PR: C.I. Health Safety laws/rules; community inter-relationships; liability insurance types/contracts; malpractice.</td>
</tr>
<tr>
<td>HSA 4700</td>
<td></td>
<td>Health Sciences Research Methods</td>
<td>Introduction to research design in the Health Sciences, including design, literature review, testing, analysis and conclusions.</td>
</tr>
<tr>
<td>HSA 5198</td>
<td></td>
<td>Information Systems and Computer Applications in Medicine</td>
<td>PR: Graduate standing or C.I. Overview of health information systems, with an emphasis on computer applications. Discussion of software and hardware requirements.</td>
</tr>
<tr>
<td>HSC 2000</td>
<td></td>
<td>Introduction to the Allied Health Professions</td>
<td>A survey of allied health professions with regard to duties, responsibilities, education and training, ethics, and relationships with other health professionals. Satisfactory/Unsatisfactory grade.</td>
</tr>
</tbody>
</table>
HSC 3110C
Medical Self Assessment: Development of clinical skills and understanding of one's health to encourage active participation of individuals in their own health care.

HSC 3402C
CPR & First Aid: To train individuals to accepted and recognized medical standards in emergency first aid and CPR to include medical, environmental and trauma related emergencies.

HSC 3531
Medical Terminology: A study of the language of medicine and allied health specialties, including work construction, definitions, and application of terms.

HSC 3640
Health Law: Principles of law as applied to the health field, with special reference to health practices.

HSC 3953C
HIV Disease: A Human Concern: Analysis of the spectrum of HIV disease. Topics include: epidemiology & immunology; basic facts, prevention; legal, economic, and ethical issues; psychosocial aspects; substance abuse; sexuality and decision-making.

HSC 4243
Analysis of Instruction in Health Professions: Development of teaching aids, audiovisuals, learning packets. Course development, questioning strategies, evaluation of didactic and clinical performance.

HSC 4500
Epidemiology: A study of the distribution and determination of diseases and injuries in human population.

HSC 4550

HSC 4651
Health Care Ethics: A study of ethical issues in health care, including life-saving measures, rights to die, transplants, surrogate parenthood, privacy and confidentiality, and decision-making.

HUM 2211
Western Humanities I: Examples of the philosophy, religion, literature, music, and visual arts, from Ancient Greece through the Middle Ages; ideas that shaped our world.

HUM 2211H
Honors Western Humanities I: Same as HUM 2211 with honors-level content.

HUM 2230
Western Humanities II: PR: HUM 2211 or C.I. Continuation of HUM 2211, from the Renaissance through the Modern World.

HUM 2230H
Honors Western Humanities II: PR: HUM 2211 or C.I. Same as HUM 2230 with honors-level content.

HUM 3250
Critical Evaluation of the Arts: An inter-disciplinary study of contemporary theory and practice in the criticism and interpretation of the arts.

HUM 3401
Asian Humanities: An interdisciplinary survey of the cultures of India, China, and Japan, concentrating on their traditional art, literature, religion, philosophy, and music.

HUM 3417
Hindu Thought and Culture: A survey of the development of Hindu thought and culture from vedic times to the modern age, with emphasis on religion, literature, philosophy, art and music.

HUM 3418
Islamic Thought and Culture: A survey of the development of Islamic thought and culture, concentrating on religion, jurisprudence, philosophy, science and art.
HUM 3431  AS 3(3,0)
Ancient World: Greece: History and culture of Greece from the Minoan-Mycenaean to the Hellenistic age, with emphasis on contributions in art, literature, and philosophy.

HUM 3432  AS 3(3,0)
Ancient World: Rome: History and culture of Rome from the Etruscan Period to the dissolution of the empire, with emphasis on contributions in architecture, law, and literature.

HUM 3553  AS 3(0)
Moses, Jesus and Muhammad: Deals with the main themes of Judaism, Christianity, and Islam as found in the teachings of Moses, Jesus, and Muhammad.

HUM 4301  AS 3(3,0)
The Classical Ideal: PR: HUM 2211 and HUM 2230 or C.I. The search for order and form in the arts of various times and cultures. Concerns reason, structure, objectivity, harmony. Open to all Juniors and Seniors.

HUM 4302  AS 3(3,0)
The Romantic Ideal: PR: HUM 2211 and HUM 2230 or C.I. The Romantic quest for identity with nature and the sublime in the arts of various times. Concerns feeling, imagination, subjectivity, creativity. Open to all Juniors and Seniors.

HUM 4303  AS 3(3,0)
The Spiritual Ideal: PR: HUM 2211 and HUM 2230 or C.I. Concerns works of art reflecting spiritual insight or the spiritual quest; mystical impulses contrasted to ethos and pathos.

HUN 2002  HPA 3(3,0)
Modern Concepts in Nutrition: An examination of the eating patterns of today's American people. Topics include: nutrients in our diets, consumer demand in the food industry; fast food outlets, food trends and hunger.

HUN 3011  HPA 3(3,0)
Human Nutrition: Essentials of nutrition related to the life cycle, including the physiological, psychosocial, and cultural aspects of nutrition and the inter-relationship with disease are emphasized.

IDH 1921  AS 1(2,0)
Honors Symposium I: Readings, lectures and discussions covering aspects of scholarship, artistic, and other creative efforts.

IDH 1922  AS 1(2,0)
Honors Symposium II: Continuation of Honors Symposium I. Emphasis on understanding scholarly and creative efforts.

INP 3004  AS 3(3,0)
Industrial Psychology: PR: PSY 3204. Analysis of the psychological principles underlying human behavior and performance in an industrial setting. Topics include selection, training, performance appraisal, job design, and employee motivation.

INP 3102  AS 3(3,0)

INP 3803  AS 3(3,0)

INP 3951  AS 3(0,10)
Industrial/Organizational Field Work: PR: C.I. This course is offered as an opportunity for advanced undergraduate psychology majors to become involved in the application of I/O psychology to local organizations.

INP 4313  AS 3(3,0)
Organizational Psychology: PR: INP 3004. Analysis of the psychological principles underlying individual and group behavior in an organizational setting. Topics include group dynamics, leadership and participation, intergroup behavior, and organization development.

INR 3002  AS 3(3,0)
International Relations-Theory and Practice: Analysis of the fundamental principles and factors affecting interstate relations and their application to contemporary global developments.

INR 4035  AS 3(3,0)
International Political Economy: The international politics of regional and global economic interdependence, with emphasis upon North-South relations, the New International Economic Order, OPEC, and multinational corporations.

INR 4102  AS 3(3,0)
American Foreign Policy: Development of American foreign policy, with emphasis on the role and policies of the United States in the contemporary world.
INR 4114 American Defense Policy: Study of the evolution of American defense policy since World War II, including consideration of the social and political costs involved and means of control.

INR 4115 Strategic Weapons and Arms Control: Control of strategic weapons and their impact. Technological and policy aspects, including nuclear proliferation.

INR 4224 Contemporary International Politics of Asia: Examinations of the foreign policies of major and secondary powers in Asia, with particular attention to China and Japan.

INR 4225 The Vietnam War: Background of events leading to America's involvement in Indochina, the course of the Vietnam War, and the lessons which that war imparts.

INR 4243 International Politics of Latin America: Study of contemporary U.S.-Latin American relations, interAmerican politics and organization, and the role of Latin America in the world.

INR 4335 Coercion in International Politics: Examination of the role of coercive techniques among states in a nuclear age, ranging from nuclear strategy and deterrence to wars of national liberations and coups.

INR 4401 International Law I: Introduction to the nature, evolution, and sources of international law and such subareas as recognition of states and governments, expropriation, nationality, and aliens.

INR 4402 International Law II: PR: INR 4401 or C.I. Examination of various subareas of international law, including maritime law, laws of the sea and seabed, air law, outer space, neutrality, and laws of war.

INR 4404 Space Law: Examination of the legal regime of outer space from both international and national perspectives, and the legal problems arising from human activity in space.

INR 4502 International Organizations: The study of the structure and workings of international organizations of cooperation, including the UN, its affiliates, and various regional organizations.


ISM 3005 MIS Techniques: Introduction to computer use required of users and developers of management information systems.

ISM 4090 Seminar in Management Information Systems: PR: ISM 4212. Course designed to address new developments in management information systems in a business environment, e.g. artificial intelligence, decision support systems, expert systems, and telecommunications.


ISM 4212 Database Management Systems: PR: ISM 3011 or consent of instructor. Design and implementation of relational database in organizations.


ISM 5021 Introduction to Management Systems: PR: Acceptance into the graduate program. Designed to provide the student with the fundamentals of business data processing and management information systems used by organizations in a modern society.

ISS 4155 Science Fiction and the Social Sciences: A multi-media examination of note-worthy science fiction from the Social Science perspective.

ITA 1005 Italian Diction: This course is especially designed for music and voice students, with an emphasis on musical terms. Italian songs, and opera libretti.
ITALIAN LANGUAGE AND CIVILIZATION

ITALIAN LANGUAGE AND CIVILIZATION I: Designed to initiate the student to the major language skills: listening, speaking, reading, and writing, in addition to an introduction to Italian culture.

ITALIAN LANGUAGE AND CIVILIZATION II: PR: ITA 1120 or equivalent. Continuation of ITA 1120.

ITALIAN LANGUAGE AND CIVILIZATION III: PR: ITA 2200 or equivalent. Designed to continue development of language skills at intermediate level, plus a review of grammar and study of syntax, with emphasis on Italian civilization.

ITALIAN CONVERSATION: PR: One year of Italian or equivalent. Practical use of the language leading toward fluency and correctness in speaking.

ITALIAN CONVERSATION: PR: ITA 2201 or equivalent. Development of skills in conversation and comprehension with an introduction to Italian culture.

ITALIAN COMPOSITION: PR: ITA 2201 or equivalent. Development of skills in composition, with an introduction to Italian culture.

ITALIAN FILM: This course attempts to stimulate and/or increase the interest of students in Italian cinema as an art form with the director playing the key role. Films by most outstanding Italian movie directors will be analyzed from a social, economic, and historical point of view.

ITALIAN CIVILIZATION: PR: ITA 2201. A historical approach to Italian civilization, with particular emphasis on art history.

SURVEY OF ITALIAN LITERATURE I: PR: ITA 2201. Main current and writers in Italian literature from the 12th through the 15th centuries.

SURVEY OF ITALIAN LITERATURE II: PR: ITA 2201. Main currents and writers in Italian literature from the 15th century to the present.

THE MODERN ITALIAN SHORT STORY: PR: ITA 2201. A study of the most representative modern Italian short stories.

HISTORY OF AMERICAN JOURNALISM: Development of mass media, leading innovators, and the media's role in the nation's history.

NEWS REPORTING: PR: Grammar Proficiency Examination and departmental typing exam. Development of skills in newsgathering and writing for the mass media. Students must have minimum ability to type and pass the department language proficiency exam.

ADVANCED REPORTING: PR: Grammar Proficiency Examination and departmental typing examination and JOU 3100. Advanced information-gathering and development of newswriting skills.

EDITING: PR: Grammar Proficiency Examination and JOU 3100. Editing copy, writing headlines, managing newsroom operations.


FEATURE WRITING: PR: Grammar Proficiency Examination, Typing Examination, and a minimum grade of C in JOU 3100 or PUR 3100. Writing feature articles for newspapers and magazines.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOU 4302</td>
<td>Editorial and Column Writing</td>
<td>PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of C in JOU 3100. Building the editorial page, background and interpreting the news.</td>
<td></td>
</tr>
<tr>
<td>JOU 4306</td>
<td>Critical Writing</td>
<td>PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of C in JOU 3100. Writing reviews of movies, plays, television programs, concerts, books, and other cultural works.</td>
<td></td>
</tr>
<tr>
<td>JOU 4310</td>
<td>Freelance Writing</td>
<td>PR: Grammar Proficiency Examination, departmental typing exam, and evidence of satisfactory writing skills. A study of the techniques and procedures of freelance writing, including the preparation of several manuscripts.</td>
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</tr>
<tr>
<td>JPN 1120</td>
<td>Elementary Japanese Language and Civilization I</td>
<td>PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of C in JOU 3100. Writing reviews of movies, plays, television programs, concerts, books, and other cultural works.</td>
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</tr>
<tr>
<td>JPN 1121</td>
<td>Elementary Japanese Language and Civilization II</td>
<td>PR: JPN 1120 or experience with the language. Continuation of JPN 1120.</td>
<td></td>
</tr>
<tr>
<td>JPN 2200</td>
<td>Intermediate Japanese Language and Civilization I</td>
<td>PR: JPN 1121 or equivalent. This course aims to aid in acquiring and refining the acquisition of the four skills in modern Japanese: speaking, listening, reading, and writing. The emphasis is on accurate communication in Japanese. The culture of Japan will also be studied.</td>
<td></td>
</tr>
<tr>
<td>JPN 2201</td>
<td>Intermediate Japanese Language and Civilization II</td>
<td>PR: JPN 2200 or equivalent. Continuation of JPN 2200 with emphasis on Japanese civilization.</td>
<td></td>
</tr>
<tr>
<td>JST 3401</td>
<td>The Jewish People I</td>
<td>Introduction survey of the history and culture of the Jewish people from the beginnings of Judaism in the biblical era through the Graeco-Roman and rabbinic periods.</td>
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</tr>
<tr>
<td>JST 3402</td>
<td>The Jewish People II</td>
<td>The life and history of the Jews in the medieval and modern worlds.</td>
<td></td>
</tr>
<tr>
<td>JST 3550</td>
<td>Introduction of Modernism into Judaism</td>
<td>The transition from traditional Judaism to modern Judaism in the 18th century, as epitomized by Moses Mendelsohn and writers of the Jewish Enlightenment (in translation).</td>
<td></td>
</tr>
<tr>
<td>JST 3751</td>
<td>Literature of the Holocaust</td>
<td>A study of the traumatic experience of the Holocaust in Europe as expressed and depicted in contemporary Jewish and Hebrew Literature.</td>
<td></td>
</tr>
<tr>
<td>JST 3810</td>
<td>The Jewish National Movement and Roots of Zionism</td>
<td>Roots of Zionism and Jewish nationalism and their relationship to modern anti-semitism, through analysis of European Jewish history and society.</td>
<td></td>
</tr>
<tr>
<td>JST 3820</td>
<td>Modern Hebrew Culture</td>
<td>The Development of the State of Israel: Political and ideological struggle for the establishment of the State of Israel, with emphasis on forces which shaped contemporary Israeli society and politics.</td>
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</tr>
<tr>
<td>LAE 3414</td>
<td>Literature for Children</td>
<td>PR: Phase I or C.I. General survey of books and materials; criteria for analysis and evaluation; types of books available considered in terms of interests, needs, and abilities of children.</td>
<td></td>
</tr>
<tr>
<td>LAE 3504</td>
<td>Language Acquisition</td>
<td>Examines development of oral language (birth - third grade) and the beginnings of literacy acquisition (birth - age three). Addresses common communicative disorders and intervention methods.</td>
<td></td>
</tr>
<tr>
<td>LAE 4314</td>
<td>Language Arts in the Elementary School</td>
<td>PR: Phase I or C.I. Content, principles, materials, and techniques involved in teaching, speaking, listening, writing, and spelling in the elementary school; organizing for instruction.</td>
<td></td>
</tr>
<tr>
<td>LAE 4342</td>
<td>Teaching Language and Composition</td>
<td>PR: EDG 4321. Techniques and methods in teaching of dialects, semantics, the various grammars. A survey of composition and rhetorical methods of selected authors.</td>
<td></td>
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</tbody>
</table>
LAE 4360  
**English Instructional Analysis:** PR: EDG 4321. Course objectives for a school curriculum and methods and materials which have special application for teaching English at the middle grades and high school.  
LAE 4464  
**Survey of Adolescent Literature:** This course is designed to explore adolescent literature from both an educational and an historical perspective.  
LAE 5195  
**CFWP Teacher Consultant:** PR: C.I. This course is designed for Fellows of the CFWP Summer Institute who will plan, practice, and present writing inservice components to public schools.  
LAE 5295  
**Writing Workshop I:** PR: C.I. Students will engage in exploration and practice of effective writing strategies. May include teaching small groups of students. May be repeated for credit. 1-3 credits.  
LAE 5319  
**Methods of Elementary School Language Arts:** Principles, procedures, organization and current practices in reading, writing, listening and talking.  
LAE 5367  
**English Composition and Literature for Teachers of Advanced Placement:** PR: Graduate standing and C.I. A two-week summer institute for secondary school teachers preparing to teach Advanced Placement courses.  
LAE 5372  
**Theory and Practice in Composition:** PR: Senior standing or C.I. Intensive study of theories of composition, with practical experience in the writing laboratory and in composition classes.  
LAE 5415  
**Children’s Literature in Elementary Education:** A survey of children’s literature: criteria for selection according to literary elements and child development needs. Methods for presenting to children; integrating literature with elementary curricula.  
LAE 5495  
**Assessing Writing:** PR: C.I. Students will explore a variety of strategies for assessing students’ writing including holistic scoring, primary trait scoring, and portfolio assessment.  
LAH 3130  
**Latin American History I:** PR: EUH 2000 and 2001 or C.I. The Colonial period.  
LAH 3200  
**Latin American History II:** PR: EUH 2000 and 2001 or C.I. The National period.  
LAH 3400  
**History of Mexico and Central America:** PR: EUH 2000 and 2001 or C.I. A survey of Mexican and Central American history from Pre-Columbian times to the present.  
LAH 3470  
**History of the Caribbean:** PR: EUH 2000 and 2001 or C.I. History of Cuba, Puerto Rico, Dominican Republic, and Haiti from Pre-Columbian times to the present.  
LAH 5713  
**Colloquium in U.S.-Latin American Relations:** PR: Senior Standing and C.I. The course will analyze U.S.-Latin American relations from an historical perspective. It will be presented through readings and discussion of selected materials.  
LAT 1120  
**Elementary Latin Languages and Civilization I:** Designed to develop Latin language skills at the elementary level: listening, speaking, reading, and writing, in addition to an introduction to Roman culture.  
LAT 1120H  
**Honors Elementary Latin & Civilization I:** Same as LAT 1120 with honors-level content.  
LAT 1121  
**Elementary Latin Language and Civilization II:** PR: LAT 1120 or equivalent. Continuation of Lat 1120.  
LAT 1121H  
**Honors Elementary Latin & Civilization II:** PR: LAT 1120H or equivalent. Same at LAT 1121 with honors-level content.  
LIN 2404  
**Vocabulary and the English Language:** Includes study of new words and their etymology and usage, the history and evolution of English, and skills and techniques for building vocabulary.  
LIN 3010  
LIN 3640  
Psychology of Oral Communication: Psychological principles involved in the communicative process, with application to individuals and groups.

LIN 4100  

LIN 4440  
Sounds and Forms of Language: This course examines the sound systems (phonology) and word structure (morphology) of natural languages as two basic areas of linguistics.

LIN 4612  

LIN 4660  
Linguistics and Literature: PR: LIN 3010. Investigation of language study as an aid to understanding literature. Topics include analysis of figurative language, languages as characterization, cohesion, sentence and discourse structure.

LIN 4680  
Modern English Grammar: PR: ENC 1102 and Sophomore standing. Emphasis upon the analysis and comparison of traditional, structural, and transformational grammar.

LIN 4710  
Foundations of Language: This course is designed to explore contributions to language from disciplines of Biology, Neurology, Psychology, and Sociology.

LIN 4710L  
Foundations of Language: Students will have practical experience in analyzing children's language samples.

LIN 4801  
Language and Meaning: PR: ENC 1102 and Sophomore standing. A linguistic study of the nature of language, meaning, and the ways in which man uses language in various social, cultural, institutional, and professional settings.

LIN 5137  
Linguistics: PR: Senior or graduate standing or C.I. Modern linguistic theories and studies focusing on language acquisition and development, contemporary American English, semantics, and para-linguistics.

LIS 4301  
Production of Materials for Media Center: PR: LIS 4428. Skill in producing teacher and student-made materials. Emphasizes graphic, photographic, and audio techniques for schools. Lab TBA.

LIT 2110  
World Literature I: PR: ENC 1102. Poetry, prose, and drama selected from ancient Hebrew, Greek, and Oriental literature and from that of Renaissance Europe.

LIT 2120  
World Literature II: PR: ENC 1102. Readings from Moliere, Voltaire, Goethe, Pushkin, Balzac, Tolstoy, Ibsen, Mann, Kafka, Camus, and others.

LIT 2120H  
World Literature II — Honors: Same as LIT 2120, with honors-level content.

LIT 3000  
Introduction to Literary Interpretation: PR: ENC 1102. Interpretation of fiction, drama, verse: conflict, characterization, point of view, rhetorical and poetic devices, figurative language, verse forms: application of critical approaches to selected works.

LIT 3082  
Continental European Fiction Since 1900: PR: ENC 1102. A selection of significant works of fiction written in various languages during the present century, read in translation.

LIT 3188  
Canadian and Commonwealth Literature: Fiction, poetry, and drama written in English in Canada and other Commonwealth nations including Australia and Caribbean and African nations with an English-speaking tradition.

LIT 3313  
Science Fiction: PR: ENC 1102. An investigation of science fiction as a literary form, together with selected readings.

LIT 3383  
Women in Literature: PR: ENC 1102. Fiction, poetry, drama and non-fiction by selected women writers, such as Emily Dickinson, Jane Austen, George Eliot, Kate Chopin, Zora Neale Hurston, Toni Morrison, Adrienne Rich, Gwendolyn Brooks.
<table>
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<th>Course Code</th>
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<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 3911H</td>
<td>Research Methods — Honors: PR: Honors Student Status or consent of Honors coordinator</td>
<td>Introduction to scholarship and practical research in literature and writing.</td>
<td>AS 1(1,0)</td>
</tr>
<tr>
<td>LIT 4094</td>
<td>Modern Drama As Literature: A study of important plays, playwrights, themes, movements, and styles in modern American, British, and European drama.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 4303</td>
<td>Post-World War II Fiction: PR: ENC 1102. An investigation of various modes of reality in the works of significant postmodernist world authors, crossing cultural boundaries.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 4312</td>
<td>Fantasy: PR: ENC 1102. A survey of the literature of fantasy, with emphasis on such figures as C.S. Lewis.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 4354</td>
<td>Ethnic Literature in America: Contributions of linguistic and ethnic groups of non-English origin to the literature of the United States.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 4374</td>
<td>Literature of the Bible: PR: ENC 1102 or LIT 3000 or C.I. Literary forms in the Bible — narrative, poetic, and dramatic — and their reflection in modern literature.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 4433</td>
<td>Survey of Technical and Scientific Literature: PR: ENC 4293 or C.I. An analysis of the historical development of technical and scientific writing from the Renaissance to the present.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 4937H</td>
<td>English Honors Seminar: PR: Honors Student Status or consent of Honors coordinator. In-depth study of language and/or literature with an emphasis on creative and critical abilities.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 5039</td>
<td>Studies in Contemporary Poetry: English language poetry from 1945 to the present. Emphasis will be on American poets, but others such as English or Australian will be included.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 5097</td>
<td>Studies in Contemporary Fiction: PR: Senior standing or C.I. Fiction in the last 20 years in the United States and Britain.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 5309</td>
<td>Media and Popular Literature: PR: Senior standing or C.I. Study of the literary content of contemporary media and of popular fiction. Application to classroom teaching.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 5366</td>
<td>The Romantic Revolt (19th Century Literature): PR: Senior standing or C.I. The romantic revolt in poetry and prose; English, American and Continental literature from 1798 to 1832.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>LIT 5367</td>
<td>The Victorian Age: PR: Senior standing or C.I. Study of poets and essayists from 1837 to 1900, including Tennyson, the Brownings, Arnold, Hopkins, Carlyle, Mill; emphasizing Dickens, George Eliot, the Brontes, and Hardy.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>MAA 4227</td>
<td>Advanced Calculus II: PR: MAA 4226 or C.I. Continuation of MAA 4226.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>MAA 5210</td>
<td>Topics in Advanced Calculus: PR: MAC 3313 or C.I. Selected topics in multivariable calculus, including limits, continuity, Euler’s theorem, the Jacobian, and double series; extension of single variable concepts, including uniform convergence and improper integrals.</td>
<td></td>
<td>AS 4(4,0)</td>
</tr>
<tr>
<td>MAA 5405</td>
<td>Complex Variables: PR: MAC 3313 or C.I. Analytic functions. Integration in the complex plane. Laurent series and residue calculus. Inversion of Laplace transformations. Conformal mappings. Applications in engineering and the physical sciences.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>MAA 5416</td>
<td>Foundations of Analysis: PR: MAA 4226. Topological spaces, compactness results, connectedness, analytical and differentiable manifolds, topological groups, Lie groups, representation theory for classical groups, Green, Stoke and Gauss’ theorems.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra: PR: Intermediate algebra or 2 years of high school algebra or C.I. Inequalities. High degree polynomials. Graphs, rational, logarithmic, and exponential functions. Systems of equations, matrices, determinants, induction. This course prepares students for higher-level mathematics courses.</td>
<td></td>
<td>AS 3(3,0)</td>
</tr>
</tbody>
</table>
MAC 1114  AS 3(3,0)
College Trigonometry: PR: MAC 1102 or 2 years of high school algebra or C.I. The circle arc length, circular functions, identities, inverse functions, applications to simple harmonic motion, function of angles, complete development of triangle solving.

MAC 3233  AS 3(3,0)
Concepts of Calculus: PR: MAC 1104 or C.I. The differential and integral calculus of rational, exponential and logarithmic functions, with applications to business analysis. Not open to students with credit in MAC 3253 or MAC 3311.

MAC 3253  AS 3(3,0)
Applied Calculus I: PR: MAC 1104 and MAC 1114 or C.I. Differential and integral calculus. An introduction to differential equations and Laplace Transforms. Applications to engineering technology. Not open to students with credit in MAC 3233 or MAC 3311.

MAC 3254  AS 3(3,0)
Applied Calculus II: PR: MAC 3253 or C.I. Continuation of MAC 3253.

MAC 3311  AS 4(4,0)
Calculus with Analytic Geometry I: PR: MAC 1104 and MAC 1114 (College Algebra and Trigonometry) or equivalent or C.I. The differential and integral calculus of algebraic and elementary transcendental functions with geometric and physical applications. Topics from analytic geometry include coordinate systems, vectors, lines, conic sections, transformations of coordinates, and polar coordinates. During the 2nd and 3rd semesters the topics also include sequences and series, Taylor series, and the differential and integral calculus for functions of several variables.

MAC 3311H  AS 4(4,0)
Calculus with Analytic Geometry I (Honors): Differential and integral calculus, emphasizing understanding basic concepts and their applications. Students will complete projects on their own. For honors students from all disciplines.

MAC 3312  AS 4(4,0)
Calculus with Analytic Geometry II: PR: MAC 3311 or C.I. Continuation of MAC 3311.

MAC 3312H  AS 4(4,0)
Calculus with Analytic Geometry II (Honors): Continuation of MAC 3311H.

MAC 3313  AS 4(4,0)
Calculus with Analytic Geometry III: PR: MAC 3312 or C.I. Continuation of MAC 3312.

MAC 3313H  AS 4(4,0)
Calculus with Analytic Geometry III (Honors): Continuation of MAC 3312H.

MAD 4203  AS 4(4,0)
Combinatorics and Graph Theory: PR: MAC 3312 and STA 3023. Counting principles, inclusion/exclusion principle, recurrence relations, generating functions, properties of graphs and digraphs, trees, path problems, coloring planarity, connectiveness matchings and coverings, applications.

MAD 5205  AS 3(3,0)
Combinatorics and Graph Theory II: PR: MAD 4203. Polya's theory of counting, Latin squares and rectangles, block designs, coding theory, networks, invariants and extremal graph theory, Ramsey theory, probabilistic methods, hypergraphs, applications.

MAE 2801  ED 4(3,1)
Elementary School Mathematics: PR: MAC 1104 or MGF 120. Mathematics appropriate for the elementary school including the six basic sets of numbers, concepts, learning sequences, algorithms, problem-solving techniques, error patterns, number systems, and geometry.

MAE 4300  ED 3(3,0)
Exploring Mathematics: Provides students with the knowledge and skills to design, implement, and facilitate the development of mathematics concepts and skill through an integrated developmentally appropriate curriculum.

MAE 4326  ED 4(3,1)
How Children Learn Mathematics: PR: MAE 2801; or C.I.; and admission to Phase II. Instructional strategies, learning activities, the use of manipulatives, lesson planning, evaluation of mathematical learning, and diagnostic techniques.

MAE 4360  ED 4(3,2)
Mathematics Instructional Analysis: PR: EDG 4321. Study of course objectives for the middle grades and high school curriculum and survey of methods and materials which have special application for teaching mathematics.

MAE 4634  ED 3(2,1)

MAE 5318  ED 3(3,0)
Current Methods in Elementary School Mathematics: PR: Regular Certificate or C.I. Strategies of instruction of computation and concepts of number, geometry, and measurement; instructional materials. (Meets Elementary Education certification requirements.)
MAE 5325  
Teaching Mathematics in the Middle/Junior High School: PR: 12 s.h. of mathematics, including at least College Algebra. Consideration of the curriculum and instructional techniques appropriate for students in Middle/Junior High School.

MAE 5356  
Teaching General Mathematics in the Secondary School: PR: MAE 3330 or C.I. This course addresses specific techniques for developing general mathematics skills and concepts beginning in grade 6. Problem solving, motivation, and innovative methods are explored.

MAE 5637  
Laboratory Programs in Mathematics: PR: Regular Certificate or C.I. Design and development of special materials and projects for mathematics independent study. Emphasis on teaching and applying the metric system. (Meets certification requirements for secondary mathematics.)

MAN 3025  
Management of Organizations: PR: Junior standing, ACN 2071 or 2023, ECO 2023, ECO 2031. Introduction to the theory and practice of managing formal organizations, including planning, organization theory, human behavior and control.

MAN 3301  
Personnel Management: PR: Junior standing, MAN 3025 or C.I. Systematics analysis of personnel functions in organizations.

MAN 3504  
Quality & Productivity Management: PR: GEB 3031 and MAN 3025. An examination of the principles and theories of quality and operations management in manufacturing and service organizations.

MAN 4029  

MAN 4101  
Human Relations in Management: PR: MAN 3025. The study of individual, interpersonal, group, and intergroup problems in business organizations through the use of cases and experimental exercises.

MAN 4129  
Managerial Skills in Organizations: PR: MAN 4240. The transference of management theories into practice. This course requires active student involvement in the development and practice of skills necessary to be a successful manager.

MAN 4240  

MAN 4310  
Personnel Management Issues: PR: Junior standing, MAN 3301. An application-oriented course to give students in the area experiences generally reserved for practitioners in the field of personnel and labor relations.

MAN 4350  
Training and Development: PR: MAN 3301. This course focuses on training and development activities as performed by organizational specialists. Theory, issues, practices and problems are discussed.

MAN 4401  
Labor Relations Management: PR: Junior standing, MAN 3301. The impact of employee organizations on labor relations, current problems, conflicts and trends; the development of managerial approaches to achieve labor-management cooperation.

MAN 4521  
Production Planning and Control: PR: MAN 3504. In depth study on long-range, intermediate-range and short-range planning and control methods as applied to a manufacturing organization.

MAN 4540  

MAN 4572  
Procurement Management: PR: MAN 3025 and MAN 3504. An elective course in procurement management. Designed to provide the student with fundamental concepts and processes involved in the procurement of goods and services required by modern society.

MAN 4595  
Computer-Based Operations Management: PR: ISM 3011. Application of production planning and control theories and Management Information Systems concepts to an integrated, computerized, real-world production environment.

MAN 4600  
International Management: PR: GEB 4361. The course examines issues involved in multinational management of business firms, with special emphasis on comparative management.
**MAP 3302**
**Differential Equations:** PR: MAC 3313 or C.I. Methods of solution for first order equations. Linear equations. Laplace transforms. Series solutions. Selected applications.

**MAP 3401**
**Problem Analysis:** PR: MAC 3253 and COP 1200 or equivalent. Application of numerical methods techniques to selected problems in Engineering Technology.

**MAP 4103**
**Mathematical Modeling I:** An overview of model construction. Model fitting, optimization models, empirical construction and modeling dynamic behavior. Calculus and ordinary differential equations required.

**MAP 4153**
**Vector and Tensor Analysis:** PR: MAC 3313 or C.I. Vector calculus. The theorems of Green, Gauss and Stokes. Introduction to tensors. Application in engineering and physical sciences.

**MAP 4307**

**MAP 4308**

**MAP 4363**

**MAP 4364**
**Applied Boundary Value Problems II:** PR: MAP 4363 or C.I. Legendre polynomials and Bessel functions. The theory of Sturm-Liouville. Separation of variables. Applications involving the wave equation, heat equation and equation of Laplace.

**MAP 5385**
**Applied Numerical Mathematics:** PR: MAP 3301 or C.I. Classical topics or numerical analysis and their applications. Romberg integration. Richardson extrapolation, Gaussian quadrature schemes.

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**MAP 5386**
**Splines and Data Fitting:** PR: MAS 3103, MAS 3113, MAP 3302, or C.I. Univariate splines and their application to data fitting. Applications to regression analysis, differential and integral equations. Algorithms to use different types of splines in computation.

**MAP 5407**
**Applied Mathematics I:** PR: MAP 3302 or C.I. Fourier series, calculus of variations. Hamilton’s principle, eigenvalues and stationary points, Rayleigh-Ritz method, partial differential equations, and approximation methods. (May be taken after Applied Math II).
MAP 5426
Special Functions: PR: MAP 3302 or C.I. Series and integral representations, generating functions, recurrence relations and orthogonality properties of the special functions. Emphasis on Bessel, Legendre and hypergeometric functions.

MAR 3023
Marketing: PR: Junior standing. Study of functions, institutions, and basic problems in marketing of goods and services in our domestic economy and abroad.

MAR 3323
Advertising and Sales Promotion Management: PR: MAR 3023. Analysis of the selection, use, and evaluation of advertising and sales promotion strategies and techniques directed at consumers, businesses, and channels of distribution.

MAR 3403
Sales Management: PR: MAR 3023. An overview of the sales management process. Emphasis on sales program formulation and implementation.

MAR 3503
Consumer Behavior: PR: MAR 3023. Analysis of the buying process, the psychological, social, and economic influences affecting consumer choice.

MAR 3613
Marketing Research: PR: MAR 3023, ECO 3411. Study of research procedures and techniques for problem solving in marketing. Concepts are explored, and the incorporation of information resources into the management function is demonstrated.

MAR 3823
Marketing Management: PR: MAR 3023 and any one additional MAR course or C.I. Operational framework exploring the analysis, planning, and control activities of marketing.

MAR 4071
Contemporary Marketing Issues: PR: Senior standing, marketing major, C.I. Cultural, social, political, economic, and competitive developments and their effects upon marketing activities.

MAR 4155
International Marketing: PR: MAR 3023, GEB 4361, or C.I. Investigates strategy, policy and the variables in international marketing decisions.

MAR 4203
Marketing Channel Systems: PR: MAR 3023. Marketing functions and relationships within marketing channel systems, with primary focus on the needs for interorganizational cooperation and coordination between channel organizations.

MAR 4231
Retailing Management: PR: MAR 3023. Analysis of the field of retailing. Emphasis on planning for profit through management, inventory control, etc.

MAR 4453
Industrial Marketing: PR: MAR 3023. Marketing of goods and services between organizations, including commercial, governmental, institutional, and not-for-profit. Emphasis on the development, pricing, promotion, and distribution of industrial products.

MAR 4803
Marketing Strategy: PR: Senior standing and marketing courses completed or C.I. Marketing problems are explored, with emphasis on strategy formulation and integrative marketing decision-making.

MAR 4831
Product Management: PR: MAR 3023. Components of product management, including analysis, strategy formulation and implementation are examined.

MAR 4841
Services Marketing: PR: MAR 3023. Examination of marketing in services industries, with particular emphasis on unique aspects of services marketing, the service marketing mix, and the implementation of services strategies.

MAR 4941
Internship: PR: Permission of Dept. Chair. Provides qualified undergraduate marketing majors with educational experience not gained in class setting.

MAR 5055
Marketing Concepts: PR: Acceptance into the graduate program. Study of functions, institutions, and basic marketing of goods in the U.S. economy.

MAR 5941
Small Business Consulting: PR: ACG 2021, 2071, ECO 2023, 2013, MAN 3025, MAR 3023, or graduate status. Provides students opportunity to apply knowledge learned in classroom to real business situations. Open to undergraduate majors in the College of Business Administration with approval of the department chair.
MAS 3105 AS 4(4,0)
Elementary Linear and Matrix Algebra: PR: MAC 3312 or C.I. Matrices, determinants, vector spaces in Rn, linear independence, basis, solutions of systems, range of linear transformations, eigenvectors, Jordan Form, matrix functions, quadratic forms.

MAS 3106 AS 4(4,0)
Linear Algebra: PR: MHF 2300 and MAS 3105 or C.I. Abstract vector spaces, linear transformations, isomorphisms, projections, innerproducts, the spectral theorem, Jordan Canonical Form. (Only offered spring semester).

MAS 3203 AS 3(3,0)
Introduction to Number Theory: PR: MHF 2300 or C.I. The course will include the following topics: inductive reasoning, factorization, the division algorithm and congruences.

MAS 4146 AS 3(3,0)

MAS 4301 AS 3(3,0)
Algebraic Structures: PR: MHF 2300 or C.I. An introduction to groups, rings and fields.

MCB 3013C HPA 5(3,4)
General Microbiology: PR: A college course in chemistry and in basic biological sciences. Fundamentals of microbiology, including microbial structure and function, metabolism, growth, genetics, virology, environmental control, ecology, pathogenicity; and laboratory techniques.

MCB 3203 HPA 3(3,0)
Pathogenic Microbiology: PR: MCB 3013C or C.I. Microorganisms producing disease in man and other animals; means of transmission; protection against disease.

MCB 3203L HPA 1(0,3)
Pathogenic Microbiology: CR: MCB 3203. Laboratory investigation of pathogenic microorganisms, with emphasis on isolation and identification of pathogenic microorganisms.

MCB 4114C HPA 4(3,3)

MCB 4414 HPA 3(3,0)
Microbial Metabolism: PR: MCB 3013C and BCH 4054. Interrelationship between cellular structure function and genetic traits in microorganisms. The interaction between microorganisms and their nutritional environment.

MCB 4603C HPA 3(3,0)
Environmental Microbiology: PR: PCB 3043 and MCB 3013C. Interrelationships between the biological activities of microorganisms and their terrestrial and aquatic environments.

MCB 5205 HPA 3(3,0)
Infectious Process: PR: MCB 3013C or C.I. Discussion of current theories of the infectious process and the response of host cells and tissue to infection.

MCB 5505C HPA 2(3,3)

MCB 5654 AS 3(3,0)
Applied Microbiology: PR: MCB 3013C or C.I. Microbial biochemistry of industrial processes including: economics, screening, scale up, quality control and applied genetics.

MET 3101 EN 3(3,0)
Fundamentals of Meteorology and Climatology: PR: MAC 1104 or C.I. Studies of the physical processes that determine the climate of a region. The methods of measurement and use of meteorological parameters.

MGF 1203 AS 3(3,0)
Finite Mathematics: PR: Intermediate algebra or 2 years of high school algebra or C.I. Introduction to logical structure, sets, probability, arrays, games. This course is intended for students who are not planning to take further courses in mathematics.

MHF 2300 AS 3(3,0)
Logic and Proof in Mathematics: PR: Two years of high school algebra and one year of geometry or C.I. Basic mathematical logic. Methods of proof in mathematics. Application of proofs to elementary mathematical structures.

MHF 4404 AS 3(3,0)
MHS 5005  
Introduction to Guidance and Human Services: PR: Completion of Phase II of Educ. Prof. Prep. or Certificate or C.I. A basic course presenting an overview of the philosophy, organization, administration and operation of guidance and human services.

MIS 1031  
Basic Military Science: Organization of the Army and ROTC. Career opportunities, significance of military courtesy, discipline, customs, and traditions. Analysis of weapons and equipment of the U.S. Army.

MIS 1400  
Fundamentals of Leadership Development: Development of leadership abilities, including squad movement techniques. Fundamentals of Land Nav will be discussed.

MIS 2120  
Leadership Development - I: Development of leadership abilities through practical exercises. Includes platoon leadership assessment program, role of the NCO, land navigation, and conduct of briefings.

MIS 2300  
Leadership Development - II: Development of leadership abilities. Includes first aid training, communications, the threat, offensive/defensive operations, patrolling, and troop leading procedures.

MIS 3301  
The Small Unit Leader: Analysis of the leader’s role in directing and coordinating efforts of small units in tactical operations. Includes land navigation, weapon systems, communications, defensive/defensive operations and patrolling.

MIS 3410  
Leadership Responsibilities: A description of the role and responsibility of the small unit leader. Includes principles of war, military instruction, land navigation, patrolling and offensive/defensive operations.

MIS 4421  
Military Law: A study of military law, the Army’s maintenance management system, and a study of the obligations and responsibilities of a newly-commissioned officer.

MIS 4430  
Advanced Military Science: Study of the decision-making process; staff organization, estimating process, training, scheduling, and staff studies. Analysis of administration, personnel and Army supply system.

MLS 3220C  
Techniques in Clinical Microscopy: PR: Admission to the professional phase of the MLS program or C.I. Analysis of human urine and other body specimens, chemically and microscopically; interpretation of abnormal results and their correlation to disease included.

MLS 3305  
Hematology: PR: Admission to the professional phase of the MLS program or C.I. Diagnostic procedures and morphologic interpretation; correlation of this data to disease.

MLS 3705C  
Concepts in Education/Management: PR: Admission to professional phase of the MLS Program or C.I. Introduction to laboratory management, health delivery systems, and educational practices in clinical settings.

MLS 4334C  
Hemostasis: PR: Admission to the professional phase of the MLS program or C.I. Study of the hemostasis mechanisms; diagnostic procedures and correlation of data to pathological conditions.

MLS 4420C  
Clinical Mycology: PR: Admission to the professional phase of the MLS program with C.I. Instruction and laboratory practice in the isolation and identification of fungi associated with mycotic infections of man.

MLS 4430C  
Clinical Parasitology: PR: Admission to the professional phase of the MLS program or C.I. Instruction and laboratory practice in the examination and study of clinical material for the detection and identification of animal parasites.

MLS 4460  
Clinical Pathogenic Microbiology: PR: or CR: MCB 3203 and admission to the professional phase of the MLS program. Isolation and pathogenic bacteria and serological methods; interpretation of abnormal results, with correlation to disease.

MLS 4506C  
Immunodiagnostics: PR: PCB 3233. Theory and application of clinical serologic and immunologic diagnostic testing, stressing the utilization of monoclonal technology.

MLS 4550  
Clinical Immunohematology: PR: Admission to the professional phase of the MLS program or C.I. Investigation of incompatible crossmatches; antibody identification, leukocyte antigens and identification procedures, problem solving.
MLS 4620 Concepts and Applications in Clinical Chemistry: Overview of clinical chemistry theory and principles for the practicing technologists to include instrumentation, protein chemistry, enzymology, and organ system physiology.

MLS 4625 Advanced Clinical Chemistry I: PR: Admission to the professional phase of the MLS program or C.I. Theory and practice in clinical chemistry techniques; carbohydrates, protein, electrophoresis, enzymes, instrumentation, and quality control.

MLS 4630 Advanced Clinical Chemistry II: PR: MLS 4625 and admission to professional phase of MLS or C.I. Theory and practice in clinical chemistry techniques; liver function testing, lipids, hormones, toxicology, and drug monitoring.

MLS 4830C Clinical Practice I: PR: Admission to the professional phase of MLS program or rotation in one or more of the following areas: Hematology, Chemistry, Microbiology, Blood Bank, Serology-Coagulation, Clinical Microscopy, Nuclear Medicine.

MLS 4831C Clinical Practice II: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4830C.

MLS 4832C Clinical Practice III: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4831C.

MLS 4833C Clinical Practice IV: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4832C.

MLS 4834C Clinical Practice V: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4833C.

MLS 5512 Clinical Immunology: PR: PCB 3233, MLS 4511 or C.I. Advanced theory and application of immunologic diagnostic testing, stressing the utilization of monoclonal technology.

MMC 4200 Mass Communication Law: The legal rights and responsibilities of the mass media.

MMC 4602 Contemporary Media Issues: PR: JOU 3100, PUR 3100 or RTV 3300. Relationship between the mass media and society; examination of social and ethical issues and responsibilities of the media’s relationship with government.

MMC 4700 Mass Media and Popular Culture: An impact of mass media upon American culture past to present.

MRE 3000 Introduction to Health Information Management (HIM): PR: Acceptance into upper-division limited access HIM program. Introduction to profession: POMR; release of information; record analysis.

MRE 3110 Health Record Organization and Management: PR: MRE 3000, Nomenclature/classification systems; health/vital statistics; computer abstracting; Health information manager’s role in hospital/medical staff organization; accrediting/approving agencies; policy procedure manuals; job descriptions; indexing.

MRE 3800 Directed Practice I: PR: Acceptance into upper-division limited access HIM program. Interdepartmental experience and introduction to health information departments in selected health care facilities.

MRE 3810 Directed Practice II: PR: MRE 3800, HSC 3640, HSC 3531. Quantitative and qualitative analysis; MPI; release of information; filing, admission/discharge processing performed in a health care facility.

MRE 4202 Coding Procedures: PR: MRE 3432, HSC 3531, or C.I. Principles and mechanics of coding systems for health information retrieval, DRGs.

MRE 4203C Coding Procedures II: PR: MRE 4202 or C.I. Continuation of MRE 4202; HCPCS-CPT.


MRE 4304 Health Information Department Management: PR: MRE 4500. Analysis of management functions in health care setting; in-service education; equipment demonstrations; problem-solving techniques.
MRE 4312
Analysis of Medical Record Department Operations: PR: MRE 3110; MAN 3025; MAN 3301. Personnel administration; budgeting; forms analysis, design and control; work distribution and simplification; other evaluation techniques. Principles of word processing and medical transcription.

MRE 4400
Health Records and Standards: PR: MRE 3110. Medical record standards and procedures for long-term care; ambulatory care; home health care; HMOs and psychiatric facilities. Principles of consulting. Labs and field trips.

MRE 4500
Quality Assessment: PR: MRE 3110. Utilization review; principles and mechanics of medical audit and quality assurance; risk management.

MRE 4830
Directed Practice III: PR: MRE 3110; MRE 4202; MRE 3810. Incomplete record control; coding; health/vital statistics; microfilm.

MRE 4832
Directed Practice IV: PR: MRE 3110; MRE 4312; MRE 4500; MRE 4830. Indexing abstracting; audit; quality assurance; U.R.; transcription; budget; management of activities in DP I, II, III; computer applications. Assignment to hospital and other health care facilities.

MRE 4835
Management Affiliation: PR: All other required courses. Assignment to a selected health care facility serving in an administrative capacity under the direction of a Registered Record Administrator; lab exercises; comprehensive exam.

MTG 4212
Modern Geometries: PR: MAC 3311 or C.I. Sets of axioms and finite geometries, groups of transformations, Euclidean motions of 2-space and 3-space, convexity in 2-space and 3-space. Euclidean geometry of polygon and circle, constructible numbers, constructions and non-Euclidean geometry.

MTG 4302
Introduction to Topology: PR: MHF 2300 or C.I. Metric spaces, topological spaces, limit points, continuity, compactness, and connectedness.

MUC 1101
Composition I: Creative work in small forms. Open to qualified non-music majors with C.I. May be repeated for credit.

MUC 3104
Composition II: PR: C.I. or by audition. Creative work in large and small forms in the area of choral, instrumental, and keyboard media. May be repeated for credit.

MUC 3311
Digital Synthesis: An introduction to the world of digital technology and its musical applications.

MUC 3441
Advanced Digital Synthesis: PR: MUC 3311. Work on individual projects utilizing sequencing and notational music software which uses several editing techniques.

MUE 1440
String Techniques: Class instruction in beginning string playing techniques.

MUE 2210
Early Childhood Music and Movement: An examination of the role of music and creative movement in the lives of young children.

MUE 3210
Music in the Elementary School: Fundamental procedures for teaching elementary school music, stressing appropriate music materials and activities for different age groups; selected experience in music.

MUE 3450
Woodwind Techniques I: Class instruction in beginning woodwind playing techniques.

MUE 3451

MUE 3460
Brass Techniques: Class instruction in beginning brass playing techniques. May be repeated for credit.

MUE 3470
Percussion Techniques: Class instruction in beginning percussion playing techniques.

MUE 4311
Elementary School Music Instructional Analysis: PR: Junior standing. Organization and administration of instruction for comprehensive music education, K-8; instructional planning, techniques, and materials for elementary music education.
MUE 4360 Secondary School Music Instructional Analysis: PR: MUE 4311 or C.I. Instructional planning; techniques and materials in middle school, junior high and senior high classrooms; consideration of general music education program; evaluation materials and procedures.

MUE 4480 Marching Band Techniques: PR: C.I. Principles of organizing and training marching bands; Planning, charting football shows, rehearsal problems. Guided observations. May be repeated for credit.

MUE 5611 Trends in Elementary School Music Education: PR: MUE 3210 or equivalent, or C.I. Advanced study of instructional strategies and materials; integration of music education experiences with classroom activities; personal musical skill development; current research and new curricula.

MUE 5695 Trends in Arts Education: PR: Initial Certification or C.I. Investigation of current trends in arts education; development of strategies for utilizing understandings of arts education in the total curriculum of elementary students.

MUG 3101 Basic Conducting: Fundamental techniques and practice in conducting.

MUG 3202 Choral Conducting: PR: MUG 3101. Fundamental principles of choral conducting and rehearsal techniques. May be repeated for credit.

MUG 3302 Instrumental Conducting: PR: MUG 3101. Fundamental principles of instrumental conducting and rehearsal techniques. May be repeated for credit.

MUG 4103 Advanced Conducting: PR: C.I. Study of advanced vocal or instrumental conducting techniques. Rehearsal procedures, selection of materials and program-building, interpretation of scores, study and performance of selected works.

MUH 4211 History and Literature I: PR: MUT 1112. In-depth study of the development of Western musical styles from antiquity to present.

MUH 4212 History and Literature II: PR: MUT 1112. Continuation of MUH 4211.

MUH 4218 Review of Music History: PR: C.I. A review of music history from Ancient Greece to the present.


MUL 2010 Enjoyment of Music: Only non-music majors. Designed to develop an understanding of musical principles and techniques for listening to music.

MUL 3400 Piano Literature I: PR: Major in Music or C.I. Survey of stringed keyboard literature from the 16th century to the present, with emphasis on technical, formal and performance problems.

MUL 3401 Piano Literature II: PR: MUL 3400. Continuation of MUL 3400.

MUL 3600 Song Literature I: PR: Major in Music or C.I. Survey of the development of the art song from the Baroque to the present, with emphasis on technical, formal and performance problems.

MUL 3601 Song Literature II: PR: MUL 3600. Continuation of MUL 3600.

MUN 3113 Marching Band: PR: Admission by audition. Preparation for appearance at football games and special occasions. May be repeated for credit.

MUN 3123 Concert Band: Open to all students with audition. Study and performance of music for large ensembles. May be repeated for credit.

MUN 3143 Wind Ensemble: Open to all students by audition. Study and performance of music for wind ensemble and band. May be repeated for credit.

MUN 3283 Community Orchestra: PR: C.I. Open to all students. Audition for wind and percussion players required. Repertoire from symphonic literature. May be repeated for credit.
MUN 3313  AS 1(0,3)  
University Choir: Open to all students by audition. Study and performance of large ensemble music. Possible tours. May be repeated for credit.

MUN 3343  AS 1(0,3)  
Madrigal Singers: Open to all students by audition. Extra rehearsals and Madrigal Dinners required. Tours. May be repeated for credit.

MUN 3344  AS 1(0,3)  
Chamber Chorus: Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3393  AS 1(0,3)  
Oratorio Choir: Open to all students, faculty, and members of the community for performance of large works. May be repeated for credit.

MUN 3423  AS 1(0,2)  
Woodwind Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3433  AS 1(0,2)  
Brass Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3442  AS 1(1,0)  

MUN 3443  AS 1(0,2)  
Percussion Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3444  AS 1(1,0)  

MUN 3453  AS 1(0,3)  
Piano Ensemble: Open to Music Majors or C.I. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3483  AS 1(0,2)  
String Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3713  AS 1(0,4)  
Jazz Lab: PR: C.I. Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3174  AS 1(0,3)  
Jazz/Pop Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 4473  AS 1(0,2)  
Early Music Ensemble: PR: C.I. Study and performance of pre-classical music. May be repeated for credit.

MUO 3503  AS 3(0,3)  
Opera Workshop: PR: C.I. Study of expressive emotion in relation to musical theatre; staging and performance of prepared studies of popular music for vocal ensembles. May be repeated for credit.

MUS 1010  AS 0(9,2)  
Music Forum: A series of special musical events required of music majors. Includes lectures and recitals by faculty, students, and guest artists.

MUS 2321  AS 8(6,6)  
Sophomore Practicum in Recording Arts: Introduction to recording arts; recording engineering, and

MUS 3322  AS 10(8,8)  
Junior Practicum in Recording Arts: PR: MUS 2321. Sound reinforcement and concert lighting, tapeless studio and music video.

MUS 4323  AS 10(8,8)  
Senior Practicum in Recording Arts: PR: MUS 3322. Music business, advanced recording and production, studio maintenance and troubleshooting.

MUS 4330  AS 2(1,1)  
Recording Techniques for Classical Music: PR: MUS 2320 or C.I. Concert hall recording techniques for classical music.

MUS 4401  AS 2(1,1)  
Studio Teaching: PR: C.I. Management of the music studio; responsibilities and techniques of private instruction for the studio teacher, principles of psychology of music. May be repeated for credit.
MUS 4905
Directed Experience: PR: C.I. and Junior standing. Special topics of study and/or research as determined by student/faculty consultation. May be repeated for credit.

MUT 111
Music Theory IA: Open to all students. Writing, performance, analysis of and music of various stylistic periods.

MUT 1112

MUT 1241
Ear Training and Sight Singing IA: Aural and visual/oral comprehension of elements of music — rhythm, melody, harmony, form. Intended to be taken with MUT 1111.

MUT 1242

MUT 2116
Music Theory IIA: PR: MUT 1112. Continuation of MUT 1111-1112; writing, performance, and analysis of music of various stylistic periods.

MUT 2117

MUT 2246
Ear Training and Sight Singing IIA: PR: MUT 1242. Continuation of MUT 1242. Intended to be taken with MUT 2116.

MUT 2247
Ear Training and Sight Singing IIB: PR: MUT 2246. Continuation of MUT 2246. Intended to be taken with MUT 2117.

MUT 3248
Ear Training and Sight Singing III: PR: MUT 2247. Continuation of MUT 2247. Intended to be taken with MUT 3561.

MUT 3353
Jazz Skills I: PR: C.I. Elements of jazz improvisation. Emphasis on listening, harmony, basic arranging and jazz forms.

MUT 3354
Jazz Skills II: PR: MUT 3353 or C.I. Continuation of Jazz Skills I.

MUT 3561
Music Theory III: PR: MUT 2117. Continuation of MUT 2116-2117; writing, performance, and analysis of music of various stylistic periods.

MUT 4031
Review of Music Theory: PR: C.I. A comprehensive review of harmonic and analytic skills. May be repeated for credit.

MUT 4344

MUT 5381

MVB 1211

MVB 1212
Secondary French Horn: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in French Horn. Intended for non-music majors. May be repeated for credit.

MVB 1213

MVB 1214

MVB 1215
Secondary Tuba: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in tuba. Intended for non-music majors. May be repeated for credit.

MBV 1411
Trumpet I: PR: Major in music or consent of chair; audition. May be repeated for credit.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVB 1412</td>
<td>French Horn I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 1413</td>
<td>Trombone I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 1414</td>
<td>Baritone I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 1415</td>
<td>Tuba I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2421</td>
<td>French Horn I: PR : Major in music or consent of chair ; audition . May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2422</td>
<td>Trombone I: PR: Major in music or consent of chair ; audition . May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2423</td>
<td>Baritone I: PR : Major in music or consent of chair ; audition . May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2424</td>
<td>Tuba I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2425</td>
<td>French Horn II: PR: MVB 1412 and competence determined by faculty jury. Continuation of MVB 1412. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2426</td>
<td>Trombone II: PR: MVB 1413 and competence determined by faculty jury. Continuation of MVB 1413. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2427</td>
<td>Baritone II: PR: MVB 1414 and competence determined by faculty jury. Continuation of MVB 1414. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2428</td>
<td>Tuba II: PR: MVB 1415 and competence determined by faculty jury. Continuation of MVB 1415. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2429</td>
<td>French Horn III: PR: MVB 2421 and competence determined by faculty jury. Continuation of MVB 2421. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2430</td>
<td>Trombone III: PR: MVB 2422 and competence determined by faculty jury. Continuation of MVB 2422. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2431</td>
<td>Baritone III: PR: MVB 2423 and competence determined by faculty jury. Continuation of MVB 2423. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2432</td>
<td>Tuba III: PR: MVB 2424 and competence determined by faculty jury. Continuation of MVB 2424. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2433</td>
<td>French Horn IV: PR: MVB 2425 and competence determined by faculty jury. Continuation of MVB 2425. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2434</td>
<td>Trombone IV: PR: MVB 2426 and competence determined by faculty jury. Continuation of MVB 2426. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2435</td>
<td>Baritone IV: PR: MVB 2427 and competence determined by faculty jury. Continuation of MVB 2427. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 2436</td>
<td>Tuba IV: PR: MVB 2428 and competence determined by faculty jury. Continuation of MVB 2428. May be repeated for credit.</td>
<td>AS 2(1,1)</td>
</tr>
<tr>
<td>MVB 5451</td>
<td>French Horn V: PR: C.I.</td>
<td>AS 2(1,0)</td>
</tr>
<tr>
<td>MVB 5452</td>
<td>Trombone V: PR: C.I.</td>
<td>AS 2(1,0)</td>
</tr>
<tr>
<td>MVB 5453</td>
<td>Baritone V: PR: C.I.</td>
<td>AS 2(1,0)</td>
</tr>
<tr>
<td>MVB 5454</td>
<td>Tuba V: PR: C.I.</td>
<td>AS 2(1,0)</td>
</tr>
</tbody>
</table>
Class Piano I: Class instruction for beginning piano students. Not open to music majors whose major performing medium is piano.

Class Piano II: PR: MVK 1111 or C.l. Continuation of MVK 1111. Not open to music majors whose major performing medium is piano.

Class Piano III: PR: MVK 1121 or C.l. Continuation of MVK 1121.

Class Piano IV: PR: MVK 1131 or C.l. Continuation of MVK 1131.


Piano I: PR: Major in music or consent of chairperson; audition. May be repeated for credit.

Piano II: PR: MVK 1411 and competence determined by faculty jury. Continuation of MVK 1411. May be repeated for credit.

Organ I: PR: Major in music or consent of chairperson; audition. May be repeated for credit.

Organ II: PR: MVK 1413 and competence determined by faculty jury. Continuation of MVK 1413. May be repeated for credit.

Organ III: PR: MVK 2421 and competence determined by faculty jury. Continuation of MVK 2421. May be repeated for credit.

Organ IV: PR: MVK 3431 and competence determined by faculty jury. Continuation of MVK 3431. May be repeated for credit.

Organ V: PR: MVK 4441 and competence determined by faculty jury. Continuation of MVK 4441. May be repeated for credit.


Recorder I: Open to non-music majors. Class instruction in beginning recorder playing.

Recorder II: PR: C.l. Class instruction in advanced recorder solo and ensemble playing. Open to music students and non-music students who have taken MVO 3114.

Advanced Secondary Instruction: PR: Graduate standing and C.I. Advanced instructional techniques on a secondary instrument or in voice. May be repeated for credit.
MVP 1211

MVP 1411
Percussion I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVP 2421
Percussion II: PR: MVP 1411 and competence determined by faculty jury. Continuation of MVP 1411. May be repeated for credit.

MVP 3431
Percussion III: PR: MVP 2421 and competence determined by faculty jury. Continuation of MVP 2421. May be repeated for credit.

MVP 4441
Percussion IV: PR: MVP 3431 and competence determined by faculty jury. Continuation of MVP 3431. May be repeated for credit.

MVP 5451
Percussion V: PR: C.I.

MVS 1211

MVS 1212

MVS 1213

MVS 1214

MVS 1215
Secondary Harp: Instruction in beginning harp playing.

MVS 1216

MVS 1411
Violin I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1412
Viola I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1413
Cello I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1414
Bass I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1415
Harp I: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1416
Guitar I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1876
Class Guitar I: Open only to non-music majors. Class instruction in beginning guitar playing.

MVS 2421
Violin II: PR: MVS 1411 and competence determined by faculty jury. Continuation of MVS 1411. May be repeated for credit.

MVS 2422
Viola II: PR: MVS 1412 and competence determined by faculty jury. Continuation of MVS 1412. May be repeated for credit.

MVS 2423
Cello II: PR: MVS 1413 and competence determined by faculty jury. Continuation of MVS 1413. May be repeated for credit.

MVS 2424
Bass II: PR: MVS 1414 and competence determined by faculty jury. Continuation of MVS 1414. May be repeated for credit.

MVS 2425
Harp II: PR: MVS 1415 and competence determined by faculty jury. Continuation of MVS 1415. May be repeated for credit.
MVS 2426
Guitar II: PR: MVS 1416 and competence determined by faculty jury. Continuation of MVS 1416. May be repeated for credit.

MVS 2826
Class Guitar II: Open to music students or non-music students who have taken Guitar I or C.I. Class instruction in advanced guitar solo and ensemble playing.

MVS 3431
Violin III: PR: MVS 2421 and competence determined by faculty jury. Continuation of MVS 2421. May be repeated for credit.

MVS 3432
Viola III: PR: MVS 2422 and competence determined by faculty jury. Continuation of MVS 2422. May be repeated for credit.

MVS 3433
Cello III: PR: MVS 2423 and competence determined by faculty jury. Continuation of MVS 2423. May be repeated for credit.

MVS 3434
Bass III: PR: MVS 2424 and competence determined by faculty jury. Continuation of MVS 2424. May be repeated for credit.

MVS 3435
Harp III: PR: MVS 2425 and competence determined by faculty jury. Continuation of MVS 2425. May be repeated for credit.

MVS 3436
Guitar III: PR: MVS 2426 and competence determined by faculty jury. Continuation of MVS 2426. May be repeated for credit.

MVS 3437
Violin IV: PR: MVS 3431 and competence determined by faculty jury. Continuation of MVS 3431. May be repeated for credit.

MVS 3438
Viola IV: PR: MVS 3432 and competence determined by faculty jury. Continuation of MVS 3432. May be repeated for credit.

MVS 3439
Cello IV: PR: MVS 3433 and competence determined by faculty jury. Continuation of MVS 3433. May be repeated for credit.

MVS 3440
Bass IV: PR: MVS 3434 and competence determined by faculty jury. Continuation of MVS 3434. May be repeated for credit.

MVS 3441
Harp IV: PR: MVS 3435 and competence determined by faculty jury. Continuation of MVS 3435. May be repeated for credit.

MVS 3442
Guitar IV: PR: MVS 3436 and competence determined by faculty jury. Continuation of MVS 3436. May be repeated for credit.

MVS 1111
Class Voice: Class instruction in beginning voice. May be repeated for credit.

MVS 1211

MVS 1411
Voice I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVV 2421
Voice II: PR: MVV 1411 and competence determined by faculty jury. Continuation of MVV 1411. Major in music or consent of chair; audition. Private and class lessons. May be repeated for credit.

MVV 3431
Voice III: PR: MVV 2421 and competence determined by faculty jury. Continuation of MVV 2421. May be repeated for credit.

MVV 4441
Voice IV: PR: MVV 3431 and competence determined by faculty jury. Continuation of MVV 3431. May be repeated for credit.

MVV 4640
Voice Pedagogy I: PR: C.I. Methods, materials for vocalists; teachers, conductors; voice production; diagnosis of problems and correction; demonstration and observation of teaching; beginning to intermediate levels. May be repeated for credit.

MVV 4641
Voice Pedagogy II: PR: C.I. Continuation of MVV 4640. Intermediate to advanced levels. May be repeated for credit.

MVV 5451
Voice V: PR: C.I.

MVW 1211
Secondary Flute: PR: Consent of Music Chair. PR: Performing ensemble. Advanced instruction in flute. Intended for non-music majors. May be repeated for credit.

MVW 1212

MVW 1213

MVW 1214

MVW 1215

MVW 1411
Flute I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVW 1412
Oboe I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVW 1413
Clarinet I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVW 1414
Bassoon I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVW 1415
Saxophone I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVW 2421
Flute II: PR: MVW 1411 and competence determined by faculty jury. Continuation of MVW 1411. May be repeated for credit.

MVW 2422
Oboe II: PR: MVW 1412 and competence determined by faculty jury. Continuation of MVW 1412. May be repeated for credit.

MVW 2423
Clarinet II: PR: MVW 1413 and competence determined by faculty jury. Continuation of MVW 1413. May be repeated for credit.

MVW 2424
Bassoon II: PR: MVW 1414 and competence determined by faculty jury. Continuation of MVW 1414. May be repeated for credit.

MVW 2425
Saxophone II: PR: MVW 1415 and competence determined by faculty jury. Continuation of MVW 1415. May be repeated for credit.

MVW 3431
Flute III: PR: MVW 2421 and competence determined by faculty jury. Continuation of MVW 2421. May be repeated for credit.
MVW 3432
Oboe Ill: PR: MVW 2422 and competence determined by faculty jury. Continuation of MVW 2422. May be repeated for credit.

MVW 3433
Clarinet Ill: PR: MVW 2423 and competence determined by faculty jury. Continuation of MVW 2423. May be repeated for credit.

MVW 3434
Bassoon Ill: PR: MVW 2424 and competence determined by faculty jury. Continuation of MVW 2424. May be repeated for credit.

MVW 3435
Saxophone Ill: PR: MVW 2425 and competence determined by faculty jury. Continuation of MVW 2425. May be repeated for credit.

MVW 4441
Flute IV: PR: MVW 3431 and competence determined by faculty jury. Continuation of MVW 3431. May be repeated for credit.

MVW 4442
Oboe IV: PR: MVW 3432 and competence determined by faculty jury. Continuation of MVW 3432. May be repeated for credit.

MVW 4443
Clarinet IV: PR: MVW 3433 and competence determined by faculty jury. Continuation of MVW 3433. May be repeated for credit.

MVW 4444
Bassoon IV: PR: MVW 3434 and competence determined by faculty jury. Continuation of MVW 3434. May be repeated for credit.

MVW 4445
Saxophone IV: PR: MVW 3435 and competence determined by faculty jury. Continuation of MVW 3435. May be repeated for credit.

MVW 5451
Flute V: PR: C.I.

MVW 5452
Oboe V: PR: C.I.

MVW 5453
Clarinet V: PR: C.I.

MVW 5454
Bassoon V: PR: C.I.

MVW 5455
Saxophone V: PR: C.I.

NUR 3065
Health Assessment: PR: PCB 3703C, ZOO 3733C or Florida RN License. Concepts of health assessment of clients.

NUR 3105
Introduction to Baccalaureate Nursing: Overview of baccalaureate nursing philosophy, objectives, conceptual framework, scope of practice, history, legal and ethical issues.

NUR 3165
Critical Inquiry: PR: NUR 3809, NUR 3748C, 3105 and 3065, STA 2014 or 3023. A study of approaches to problematic situations in nursing. Selected experiences in investigating, analyzing, and interpreting nursing research.

NUR 3217C

NUR 3355C

NUR 3358C
Scientific Theories of Nursing III: PR: NUR 3749C, 3795C, 3166. CR: NUR 3796. Theories and practice applicable to the nurse's role in the care of the family from conception through delivery. Focus is on family system.

NUR 3748C
Concepts Basic to Nursing Practice: PR: Admission to the nursing program and completion of prerequisites. Beginning principles and concepts of nursing theory and practice utilizing the nursing process in selected clinical settings.
NUR 3749C


NUR 3809

Transitional Concepts in Nursing I: PR: Florida RN status. Exploration of issues and theories related to professional nursing practice to facilitate transition of RN to baccalaureate level of nursing practice.

NUR 3826H

Bioethics: Value and Ethics in Everyday Life: Includes questions concerning human values and ethical questions arising in health care delivery, policy issues, and professional practice among licensed health care practitioners.

NUR 3905

Independent Study: Directed Study.

NUR 4084

Transitional Concepts in Nursing II: PR: NUR 3065, 3166, 3809. Enhancement of knowledge from basic Registered Nurse programs and continuation of study from NUR 3809.

NUR 4196

Crisis Intervention: Crisis theory and techniques: recognition and intervention in crisis events. Applicable to all areas of nursing and all helping professions.

NUR 4297

Introduction to Cardiovascular Nursing: Nursing management of cardiac disorders as they affect adaptation of individuals and family.

NUR 4353C

Scientific Theories of Nursing V: PR: NUR 3755C, 3796C or 3709. Theories and principles of psychiatric/mental health nursing. Clinical application in selected settings.

NUR 4895C

Scientific Theories of Nursing VI: PR: NUR 3755C, 3796C or 3709. Theories and principles of public health nursing. Clinical applications in selected settings.

NUR 4820C


NUR 4880

Introduction to Critical Care Nursing: PR: NUR 3749C and NUR 3795C or C.I. Theories and principles of comprehensive nursing care of individuals and families in critical care settings.

NUR 4905C

Nursing Independent Study: PR: NUR 4756C. An opportunity for in-depth study in an area of special interest to the student.

NUR 4906

Independent Study: Directed Study.

NUR 4941

Selected Nursing Practicum: PR: NUR 4756C and 4758C. An opportunity for an in-depth clinical study in an area of special interest to the student.

OST 4335

Business Correspondence: Originating written business correspondence to include letters, memoranda, and business forms. (Typewriting skill recommended.)

PAD 3003

Public Administration: An examination of the basic environment, culture, and organization of public administration in the United States.

PAD 4034

The Administration of Public Policy: Problems of values, interests, and objectives and their impact on the administration of public programs, stressing the interplay between social values, policies and administration.

PAD 4104

Administrative Theory: A review of the behavioral aspects of the administrative process, its impact on organizational goal achievement and on supervisory strategies. Some social and structural pathologies affecting administrative practice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAD 4110</td>
<td>Intergovernmental Administration: Various approaches to studying and explaining the American intergovernmental system. Emphasis on interorganizational activities, i.e., negotiation, cooperation, and coordination within the legal setting.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4131</td>
<td>Public Sector Project Management: Various approaches to managing projects, including using scheduling techniques such as GANTT, CPM, and PERT, as well as team building, facilitating, and leadership skills.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4204</td>
<td>Fiscal Management: PR: C.I. Analysis of methods of securing public funds, the process of budgetmaking, and techniques of management used in managing public funds.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4351</td>
<td>Issues in Environmental Program Management: The study of environmental policymaking processes, programs, and problems through lectures, field study, and research projects.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4414</td>
<td>Public Personnel Administration: The history, operating components, structural characteristics, and increasing impact of laws and related sanctions on personnel practices of public agencies.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4720</td>
<td>Survey Research in Public Administration: Introduction to the concepts, design, methodology, computer applications, and data analysis in applied research in the public sector.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4803</td>
<td>Issues in Urban Administration: To provide students with an understanding of public policy and administrative responses to socioeconomic problems within the urban context.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4850</td>
<td>Grant and Contract Management: The study of government or public nonprofit agency grant and contract administration and management responding to funding assistance solicitations and grant and contract preparation, evaluation, and presentation.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 4941</td>
<td>Public Administration Internship: PR: C.I. Internship in municipal, county, state, or federal government, including assignments in such fields as personnel, planning, budget, and fiscal, procurement, and public safety.</td>
<td>HPA 3-6(0,6)</td>
</tr>
<tr>
<td>PAD 5041</td>
<td>Ethics and Values in Public Administration: Examination of ethics in the public sector. Public concerns, past patterns, and individual/social aspects of ethical behavior are explored.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5336</td>
<td>Introduction to Urban Planning: Issues or urbanization, regional development, land use and comprehensive planning, environmental planning, and social planning.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5337</td>
<td>Urban Design: Planning techniques such as planned unit developments, capital improvements planning, and growth management, and planning methods, including needs assessment and graphic design.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5338</td>
<td>Land Use and Planning Law: Review of national and local aspects of the legal underpinnings of urban planning aspects as zoning, growth management, and environmental regulation.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5425</td>
<td>Dispute Resolution in the Public Sector: An examination of the skills needed to resolve disputes in the public sector through facilitation, mediation, and other alternative methods.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5427</td>
<td>Labor Relations in the Public Sector: Current trends and developments in employment relations in the public sector, especially employee organization, negotiations, and the collective bargaining process.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5806</td>
<td>Local Government Operations: Operational Functions of municipal and county governments and the role of the chief executive officer.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PAD 5807</td>
<td>Administrative Practice in the Public Sector: The application of various theoretical concepts to the &quot;real world&quot; of public administration. Policy formulation and execution are examined through the case study mode.</td>
<td>HPA 3(3,0)</td>
</tr>
<tr>
<td>PCB 3043</td>
<td>Principles of Ecology: 8 hours in biological sciences. Elements of ecosystems, biogeochemical cycling, environmental factor interactions, population dynamics, and community development.</td>
<td>AS 3(3,0)</td>
</tr>
</tbody>
</table>
PCB 3043L
Principles of Ecology Laboratory: CR: PCB 3043. Field and laboratory investigations of natural ecosystems, with emphasis on current methodology in ecology.

PCB 3063
Genetics: PR: BSC 2010C. Basic principles of heredity as applied to prokaryotes and eukaryotes.

PCB 3063L
Genetics Laboratory: CR: PCB 3063. Introduction to laboratory techniques of genetics.

PCB 3233
Immunology: PR: BSC 2010C. Basic principles of immune reactions, antigen antibody interactions, cell mediated immunity, tumor immunology, and immuno therapy.

PCB 3233L
Immunology Laboratory: CR: PCB 3233. Introduction to laboratory techniques in immunology.

PCB 3301C

PCB 3523
Molecular Biology I: PR: CHM 3211 and MCB 3013 or C.I. The general principles governing the structure and function of both procaryotic and eucaryotic genes.

PCB 3703C
Human Physiology: PR: BSC 2010C or equivalent. The physiology and interrelationships of organ systems of the human body.

PCB 4302C
Limnology I: PR: PCB 3043 or C.I. Introduction to limnology and methods for freshwater ecology, with respect to physical, chemical and biological parameters.

PCB 4303C
Limnology II: PR: PCB 4302C or C.I. Primary and secondary productivity and interaction among factors such as nutrients, pollutants, temperature radiation, turbidity, and seasons.

PCB 4524
Molecular Biology II: PR: PCB 3523. The processes regulating gene function in procaryotes and eucaryotes; specialized genetic aspects underlying multicellular existence, DNA evolution.

PCB 4683
Population Biology and Evolution: PR: PCB 3043 and PCB 3063 or equivalents. The demographic and genetic structure of populations and their relationships to basic aspects of evolution and adaptation.

PCB 4723
Animal Physiology: PR: PCB 3023 or C.I. Functions of body processes occurring in animals, with emphasis on vertebrate physiology.

PCB 5326
Ecosystems of Florida: PR: PCB 3043, PCB 3043L or equivalent. Ecosystems of Florida will be discussed to include geography, geology, climate, energetics, nutrient cycling, community structure and conservation.

PCB 5045C
Conservation Biology: PR: PCB 3043 and PCB 3063. Scientific basis of conservation; conservation of ecosystems, populations, exploited species, and endangered species. Weekend field trips are required.

PCB 5046C

PCB 5235
Immunopathology: PR: PCB 3233. In-depth overview of diseases due to deficiencies or over-reactivity of the immune system.

PCB 5675C
Evolutionary Biology: PR: PCB 3043 and PCB 3063 or C.I. Review of concepts in evolutionary biology. Emphasis on evolution at and below the species level; consideration of genetic and ecological factors in divergence and speciation.

PCB 5806
Endocrinology: PR: PCB 4723 and BCH 4053 or C.I. Mechanisms of action of hormones; interrelationship between the nervous and endocrine systems.

PCO 4203
Interviewing and Counseling: PR: PSY 2013, PPE 3003, CLP 3143 and C.I. A review of various interviewing and counseling theories and techniques used in Mental Health settings as well as practical experience in interviewing and counseling procedures.

PEL 2021
Racket Sports: Study of performance and application of advanced skills, rules, and etiquette of the sports of racquetball and badminton. Physiological and social values accruing from this lifetime sport.
PELL 2121 ED 2(2,1)
Beginning Golf: Performance and application of basic skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

PELL 2122 ED 2(2,1)
Intermediate Golf: PR: PEL 2121 or equivalent competency. A study of performance and application of intermediate skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

PELL 2011 ED 2(2,1)
Basic Volleyball and Softball: The analysis of offensive and defensive alignment, techniques, and strategies.

PELL 2341 ED 2(2,1)
Beginning Tennis: Performance and application of basic skills, rules and etiquette. Physiological and social values accruing from this lifetime sport.

PELL 2342 ED 2(2,1)
Advanced Tennis: PR: PEL 2341 or equivalent competency. A study of performance and application of advanced skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

PELL 2640 ED 2(2,1)
Basic Football and Basketball: The analysis of offensive and defensive alignment, techniques, and strategies.

PEM 2101 ED 2(2,1)
Body Development: An in-depth study of individual physical (musculo-skeletal, neuromuscular, cardiorespiratory) fitness. Emphasis on individual diagnosis, principles, procedures, and conduct of related exercise programs.

PEM 2104 ED 2(2,1)
Personal Fitness: Study of personal fitness concepts, with opportunities to develop individual optimal level of fitness and an improved lifestyle through high-level wellness.

PEM 2131 ED 2(2,1)
Strength Resistance Training: Study of fitness and strength development through resistance exercise.

PEM 2171 ED 2(2,1)
Aerobic Dancing: Appropriate rhythmical muscle toning movements that develop aerobic fitness; concepts taught include warm-up, flexibility, stretching, cool down, and heart rate.

PEM 2351 ED 2(2,1)
Cycling: Study of the techniques and physiological benefits of the lifetime sport of cycling. This course is activity oriented and requires access to any model bicycle.

PEM 3405 ED 3(1,2)
Self Defense for Women and Men: Designed to provide students with self defense skills.

PEN 1121 ED 2(2,1)
Elementary Swimming: For non-swimmers and beginning swimmers. Development and study of technique in the basic skills of water safety and swimming.

PEO 3005 ED 3(2,1)
Advanced Sports Analysis: Advanced analysis of sports for the purpose of teaching and coaching.

PEO 3011 ED 3(2,1)
Team Sports: PR: This course is designed to develop skill proficiency and knowledge to plan, implement and evaluate team sports as part of the Physical Education program.

PEO 3031 ED 3(2,1)
Individual Sports and Leisure Activities: This course is designed to develop skill proficiency and knowledge to plan, implement and evaluate individual sports and leisure activities in physical education program.

PEO 3041 ED 2(1,1)
Games for the Elementary School Physical Education Program: The understanding, designing, and teaching of low-organizational game-activities for the elementary school child.

PEO 3324 ED 3(2,1)
Coaching Volleyball: Theory and methods of coaching volleyball, including the analysis of offensive and defensive alignment techniques and strategies.

PEP 3205 ED 3(2,1)
Gymnastics: This course is designed to develop skill proficiency and instructional strategies in gymnastics.

PEQ 3101 ED 2(1,1)
Instructional Analysis in Aquatics: PR: Sophomore standing or C.I. Analysis of aquatic activities for purposes of teaching and coaching. Includes techniques, conditioning, and strategy.

PET 3012 ED 1(1,0)
Physical Education Professional Development: (Unsatisfactory/Satisfactory grading). The development in the profession of physical education, and action participation in current activities.
PET 3210  
**Sports Psychology:** A review of principles of psychology related to the enhancement of satisfaction and performance in sports.

PET 3720C  
**Teaching Physical Education in the Elementary and Middle School (K-8):** PR: Admission to Junior Block, or C.I. Curricular and instructional considerations for teaching elementary and middle school physical education.

PET 3740C  
**Teaching Physical Education in the Secondary and Middle School (6-12):** PR: Admission to Junior Block, or C.I. Curricular and instructional considerations for teaching secondary and middle school physical education.

PET 3760  
**Coaching Theory and Officiating:** Theory and methods of coaching and officiating techniques.

PET 4002  
**Outdoor and Leisure Activities:** Study of contemporary outdoor and leisure activities. Course will include but not be limited to the "adventure activity curriculum," camping, water activities, fishing, orienteering, hiking.

PET 4035C  
**Motor Development and Learning:** PR: PE Junior standing. An analysis of the theories and factors influencing the motor development of children and the learning of gross and fine motor skills.

PET 4312  
**Biomechanics:** PR: Anatomy. The comprehension and application of anatomical and mechanical principles involved in human movement.

PET 4351  
**Applied Exercise and Human Physiology:** An in-depth study of metabolic, neuromuscular, respiratory and cardiovascular physiological concepts and principles with practical application to physical education and sport.

PET 4382  
**Fitness Assessment and Exercise Physiology:** A study and acquisition of health related fitness, exercise strategies and related assessment techniques.

PET 4401  
**Administration and Evaluation in Physical Education:** This course is designed to address administrative, measurement and evaluation considerations of physical education programs.

PET 4601  
**Motor Development: Habilitation and Remediation for Exceptional Students:** The comparative study of motor development in typical and atypical children, evaluative processes, methods of enrichment, and prescriptive techniques.

PET 4603  
**Introduction to Sports Medicine:** A comprehensive study of care of sports injuries, including instruction in attitudes, health and conditioning in sports participants.

PET 4604  
**Sports Medicine Field Application:** Demonstration and application of the treatment for various sports injuries.

PET 4622  
**Human Injuries:** PR: Biomechanics or C.I. The prevention, identification, care, and rehabilitation of human injuries.

PET 4623  
**Sports Medicine Field Application:** Demonstration and application of the treatment for various sports injuries.

PET 4640  
**Adapted Physical Education:** Principles and methods of adapting physical education activities and programs for exceptional children and adults; mainstreaming rationale and methods analyzed.

PET 4724  
**Development and History of Physical Education Curriculum:** A study of the factors involved in curriculum development and historical and philosophical considerations of physical education programs.

PET 5355  
**Exercise Physiology and Health:** In-depth study of adaptations of cardiovascular and respiratory systems during varying degrees of exercise.

PGY 3401C  
**Photography:** PR: 18 credits of the art core requirement. Beginning photography, technical and aesthetic basis. Designed for upper division art majors with studio skills. Recommended for art majors.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGY 3610</td>
<td>AS 3(3,0)</td>
<td>Photojournalism I: Introduction to visual communication. History, picture appreciation, layout and design, picture story development, basic camera operation, and ethics. Camera required.</td>
</tr>
<tr>
<td>PGY 3620</td>
<td>AS 3(1,2)</td>
<td>Photojournalism II: PR: PGY 3610. Newspaper Photojournalism. Black and white shooting and processing. Newspaper assignments. 35mm SLR camera required.</td>
</tr>
<tr>
<td>PGY 3640</td>
<td>AS 3(1,2)</td>
<td>Photojournalism IV: PR: PGY 3620. The Picture Story. Individual and group projects for extended documentary coverage.</td>
</tr>
<tr>
<td>PGY 3680</td>
<td>AS 3(3,0)</td>
<td>Photojournalism V: PR: PGY 3620. Photography Editing. Assignment selection, picture and copy editing, cropping, picture desk management, and ethics of photojournalism, and the new technological advances.</td>
</tr>
<tr>
<td>PGY 4440C</td>
<td>AS 3(2,3)</td>
<td>Special Problems in Photography: PR: ART 2201C, 2202C, and PGY 3401C. Designed for upper division art majors with photography concentration. A series of directed photographic problems of a research nature.</td>
</tr>
<tr>
<td>PGY 4580C</td>
<td>AS 4(3,2)</td>
<td>Special Problems in Film Design: A series of exercises in craft, techniques, and design for film production, including animation.</td>
</tr>
<tr>
<td>PHH 3100</td>
<td>AS 3(3,0)</td>
<td>Ancient Philosophy: PR: PHI 2010 or C.I. Foundations of Western philosophy in ancient Greek thinking about human beings and nature, including the pre-Socratics, Socrates, Plato, Aristotle.</td>
</tr>
<tr>
<td>PHH 3400</td>
<td>AS 3(3,0)</td>
<td>Modern Continental Philosophy: Continental European philosophy from the 17th through the 19th century (Descartes to Nietzsche). Rationalism, Kant, and post-Kantian idealism, materialism, and the critique of reason.</td>
</tr>
<tr>
<td>PHH 3402</td>
<td>AS 3(3,0)</td>
<td>Modern British Philosophy: A study of the major British philosophers from approximately 1600 to 1900. Concentrates on Bacon, Hobbes, Locke, Berkeley, Hume, and Mill.</td>
</tr>
<tr>
<td>PHH 3601</td>
<td>AS 3(3,0)</td>
<td>Contemporary Continental Philosophy: Current trends in philosophy as represented by the phenomenologists, Frankfurt School, structuralists, ecophiilosophers, and postmodern deconstructionists. Examples range from Husserl, Habermas to Foucault, Derrida.</td>
</tr>
<tr>
<td>PHH 3620</td>
<td>AS 3(3,0)</td>
<td>Contemporary Analytic Philosophy: Anglo-American philosophy oriented toward recent developments by Russell, Wittgenstein, and Kripke, including a study of positivism, ideal and ordinary language, and possible-worlds analysis.</td>
</tr>
<tr>
<td>PHH 3941</td>
<td>AS 3(3,0)</td>
<td>Medieval Philosophy: The influence of Greek philosophical thought in medieval Muslim, Jewish and Christian philosophy, as expressed in its main problems and representative thinkers.</td>
</tr>
<tr>
<td>PHI 3101</td>
<td>AS 3(3,0)</td>
<td>Critical Thinking: An examination of fallacies and other logical abuses in conjunction with an analysis of traditional modes in an attempt to encourage meaningful thought and usage.</td>
</tr>
<tr>
<td>PHI 2010</td>
<td>AS 3(3,0)</td>
<td>Introduction to Philosophy: Inquiry into the meaning and justification of fundamental ideas and beliefs concerning reality, knowledge, and values; application to relevant topics in ethics, religion, and politics.</td>
</tr>
<tr>
<td>PHI 2010H</td>
<td>AS 3(3,0)</td>
<td>Honors Introduction to Philosophy: Same as PHI 2010 with honors-level content.</td>
</tr>
<tr>
<td>PHI 3011</td>
<td>AS 3(3,0)</td>
<td>Philosophical Reasoning: A study of reasoning in philosophy: the role of inconsistency, infinite regress arguments, modeling, and system building, discovery procedures, diagonalization, and contract and paradigm case arguments.</td>
</tr>
<tr>
<td>PHI 3101</td>
<td>AS 3(3,0)</td>
<td>Critical Thinking: The logic of conversation, informal fallacies, and reasoning about human action; with applications to ethics in the professions.</td>
</tr>
</tbody>
</table>
PHI 3130  AS 3(3,0)  
Formal Logic I: A study of sentence and predicate logics, with introduction to modal, epistemic, deontic, multi-valued, and indeterminant logics.

PHI 3131  AS 3(3,0)  
Formal Logic II: PR: PHI 3130. Systematic study of propositional and first-order predicate logic; logistic systems and axiomatic methods; problems of metatheory, including consistency, completeness, and decidability.

PHI 3320  AS 3(3,0)  
Philosophy of Mind: Recent and contemporary attempts to understand the relation of mind to body, the relation of consciousness to personhood, and the relation of psychology to neurobiology.

PHI 3400  AS 3(3,0)  
Philosophy of Law: Study of the nature and justifications for, law and punishment. Examination of the concepts of legal personhood, rights and responsibilities.

PHI 3600  AS 3(3,0)  
Ethics: An examination of the nature of moral problems, judgements and principles, with an emphasis on recent formulations in ethical theory.

PHI 3601  AS 1(1,0)  
Practical Wisdom: A radio course in applied ethics which focuses on the human good, dealing with the relationship between means and ends and how they define one another.

PHI 3700  AS 3(3,0)  
Philosophy of Religion: An examination of basic ideas, beliefs, attitudes, and functions of religion, with emphasis upon questions of conceptual meaning and cognitive justification.

PHI 3800  AS 3(3,0)  
Aesthetics: An investigation into the nature of human artistic experience, with special reference to questions of form, perception, and style.

PHI 3803  AS 3(3,0)  
Philosophy and Creativity: A companion course to PHI 3800, Aesthetics. Examines the empirical and metaphysical claims made for creativity; attempts to account for intuition, genius, and intelligence.

PHI 3941  AS 3(1,3)  
Philosophy Practicum: Mentor at-risk grade schoolers three hours weekly and participate in a two-hour class every other week evaluating such work-related concepts as justice and fairness.

PHI 4360  AS 3(3,0)  
Theories of Knowledge: PR: Philosophy major or C.I. Classical and contemporary theories of knowledge. A critical examination of various forms of, and reasons for, skepticism, criteria for truth and justification for belief.

PHI 4400  AS 3(3,0)  
Philosophy of Science: An examination of the conceptual foundations and methodology of modern science.

PHI 4420  AS 3(3,0)  
Philosophy of Social Science: An examination of the objectives, methods and guiding norms of the social sciences and their role in the development of human knowledge.

PHI 4500  AS 3(3,0)  
Metaphysics: PR: Philosophy major or C.I. Topics include appearance and reality, actions and events, necessity and possibility, identity, nature of persons, mind-body dualism, causality, and free will and determinism.

PHM 3100  AS 3(3,0)  
Freedom and Justice: Philosophical analysis and evaluation of selected issues arising from the interaction of the individual, society, and the state; includes topics such as freedom, equality, and justice.

PHM 3350  AS 3(3,0)  
Introduction to Marxism: A study of the basic principles of Marxism, formulated and developed by Marx and Engels.

PHM 4123  AS 3(3,0)  
Feminist Theory: Study of the evolution of feminist thought and an examination of contemporary issues and perspectives in feminist theory and their relation to divergent feminist practices.

PHP 3786  AS 3(3,0)  
Existentialism: Study of existentialist analysis and criticism of the human situation as found in the writings of such philosophers as Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus.

PHT 3002C  HPA 2(1,3)  
Foundations of Physical Therapy I: The role of the therapist in the health care team. Professionalism, professional communication and care-giving skills and attitudes are emphasized.

PHT 3003C  HPA 2(1,3)  
Foundations of Physical Therapy II: A continuation of Foundations I. Focus will be on establishing effective helping relationships and interpersonal competence.
PHT 3069 HPA 2(1,3)
Introduction to Physical Assessment in P.T.: Theory and practice in the examination of the patient. Incorporates a "systems" approach, utilizing upper and lower quarter screening examinations.

PHT 3110C HPA 6(4,6)
Clinical Gross Anatomy: An in-depth study of human morphology emphasizing musculoskeletal, neuromuscular, cardiovascular and respiratory systems. Regional cadaver dissection. Surface anatomy and developmental considerations will be integrated.

PHT 3120C HPA 4(2,6)
Clinical Kinesiology: A multidisciplinary consideration of normal and abnormal human movement, including recognition, measurement, evaluation and characterization from musculoskeletal, neurological and pathological perspectives.

PHT 3142C HPA 4(3,3)
Clinical Neuroscience: An integrated study of normal and disturbed neuromorphology and behavioral sequelae. Focus on motor and sensory functioning and related assessment skills.

PHT 3155C HPA 3(2,3)
Physiology of Therapeutic Exercise: PR: PCB 3703C. Principles of exercise physiology in conditioning and deconditioning integrated into assessment and treatment plans for healthy patients and those with cardiopulmonary musculoskeletal neurological or selected metabolic disease.

PHT 3200C HPA 3(2,3)
Introduction to Caring For Patients: Basic skills of patient care; evaluation, intervention strategies, gait training, massage, and medical terminology. Includes one week of supervised orientation in a clinical facility. CPR certification required.

PHT 3216C HPA 3(2,3)

PHT 3217C HPA 2(1,3)
Theory and Procedures of Physical Therapy II: Continuation of Theory and Procedures I. Focus on electrodiagnosis and electrophysiologic assessment and treatment of pain and broad spectrum of disabilities.

PHT 3222C HPA 2(1,3)
Therapeutic Exercise I: Theory and practice in developing, implementing, and evaluating an exercise program for patients with musculoskeletal dysfunction.

PHY 3223C HPA 2(1,3)

PHT 3350 HPA 2(0,4)
Medical Science and Pharmacology I: Organized seminars on the pathophysiology and clinical manifestations of various medical conditions as they relate to medical management in physical therapy practice.

PHT 3600 HPA 2(2,0)
Introduction to Clinical Research: PR: STA 3023. Methods of research applied to clinical environment of physical therapy. Coverage of the language, logic, design and analysis of clinical research.

PHT 3821 HPA 1(0,8)
Clinical Education I: Three weeks of supervised education in clinical facilities. Application of objectives of courses previously completed.

PHT 4001 HPA 1(0,2)
Professional Issues: Current issues on professionalism in physical therapy practice. Student presentations.

PHT 4004C HPA 2(0,4)
Foundations in Physical Therapy III: Philosophical and theoretical bases of health and illness, health promotion and prevention, the role of physical therapy and the health care delivery system.

PHT 4223C HPA 2(1,3)
Therapeutic Exercise III: Development of care plans for patients with brain/brain stem pathology. Introduction to theoretical applications for Bobath, Brunnstrom, Rood and Voss.

PHT 4233C HPA 2(1,3)
Therapeutic Exercise IV: Application of prosthetic and orthotic components, alignment, fabrication and fitting, with emphasis on the lower extremity. Includes gait analysis and exercise programs.

PHT 4300 HPA 2(2,0)
Medical Science and Pharmacology II: The impact on movement and posture of various orthopedic and neurological disorders; drugs used in their management. Relates neuropathology and orthopedic pathology to the study of movement.

PHT 4310C HPA 2(1,2)
Orthopedic Problems in Physical Therapy: Critical study of physical therapy examination, assessment and treatments for pain and stress management related to musculoskeletal system.
PHT 4311C
Neurological Problems in Physical Therapy: Analysis of selected neuromotor theories and their clinical applications. Advanced evaluation and treatment procedures. The use of research to determine optimum regimen in treating neurological patients.

PHT 4320
Pedontology: PR: PSY 2013, PHY 3142C and PHT 3120. Examination of the psychosocial, gross morphological and neurodevelopmental sequences that provide the baseline for pediatric clinical assessment of individuals from birth to twenty one years of age.

PHT 4370C

PHT 4372

PHT 4410C
Teaching and Learning in Physical Therapy: Educating the patient and caregiver concerning the patient’s disability, and treatment regimen and goals. The role of the patient and caregiver in the planning and implementation.

PHT 4510
Management of Physical Therapy Services: Planning, organizing, delivering and evaluating physical therapy services within a health care system, including quality assurance, third party payers, DRG’s and legislative impact.

PHT 4610

PHT 4620
Clinical Research Problems II: Continuation of Clinical Problems I.

PHT 4822
Clinical Education II: Six weeks of supervised clinical education in a general hospital setting. All previous education objectives apply and are accumulative.

PHT 4823
Clinical Education III: Clinical practicum in a long-term care setting. Emphasis on gerontology. Supervised by a licensed physical therapist, the student will integrate and apply all previous coursework.

PHT 4831
Clinical Internship I: Full-time residence at selected facilities where, under supervision of a licensed therapist, the student may practice and integrate the skills and knowledge from his previous courses.

PHT 4832
Clinical Internship II: Continuation of Clinical Internship I.

PHY 3014C
Physics for Teachers I: PR: C.I. “Hands-on” lecture-laboratory course. Statics, simple machines, density, solar energy, heat, weather, waves, optical reflections, naked eye astronomy.

PHY 3048
Physics for Engineers and Scientists I: PR: MAC 3311, or equivalent. Mechanics, special relativity, fluids.

PHY 3048H
Honors Physics for Engineers and Scientists I: PR: MAC 3311 or equivalent. Same as PHY 3048 with honors-level content.

PHY 3048L
Physics Laboratory for Engineers and Scientists I: CR: PHY 3048. Laboratory experiments covering selected topics in physics related to PHY 3048.

PHY 3049
Physics for Engineers and Scientists II: PR: PHY 3048 or PHY 3048H. Electricity and magnetism.

PHY 3049H
Honors Physics for Engineers and Scientists II: PR: PHY 3048H, MAC 3312. Same as PHY 3049 with honors-level content.

PHY 3049L
Physics Laboratory for Engineers and Scientists II: CR: PHY 3049. Laboratory experiments covering selected topics in physics related to PHY 3049.

PHY 3053C
College Physics I: PR: MAC 1104 and MAC 1114 or equivalent or C.I. Mechanics, waves, thermodynamics.

PHY 3054C
College Physics II: PR: PHY 3053C. Fluids, electricity and magnetism, optics, x-rays, radioactivity.
PHY 3101
Physics for Engineers and Scientists III: PR: PHY 3049 or PHY 3049H. Thermodynamics, oscillations, modern physics.

PHY 3110H
Honors Physics for Engineers and Scientists III: PR: PHY 3049 or PHY 3049H. Same as PHY 3101 with honors-level content.

PHY 3221
Mechanics I: PR: PHY 3048 or PHY 3048H. Particle dynamics, rigid bodies, Lagrangian formulation of mechanics, Hamilton’s equations.

PHY 3323

PHY 3503
Thermal and Statistical Physics: PR: PHY 3101 or PHY 3101H or C.I. Thermodynamics, kinetic theory, elements of statistical mechanics.

PHY 3722C

PHY 3752C

PHY 3802L
Intermediate Physics Laboratory: PR: PHY 3101 or C.I. Laboratory work in basic measurements of physical constants; experiments in electronics, modern physics, nuclear physics, optics, and solid state physics. May be repeated for credit.

PHY 4222
Mechanics II: PR: PHY 3221. Hamiltonian dynamics, continuum mechanics, special relativity, special topics.

PHY 4324
Electricity and Magnetism II: PR: PHY 3323. Dielectrics, magnetic materials, electromagnetic waves, reflection, complex impedance, static solutions to Laplace’s Equation, radiation from an accelerated charge and antennae, special relativity.

PHY 4424
Optics: PR: PHY 3101 and PHY 3323. Wave optics, absorption, stimulated emission, lasers, transforms, coherence, holography.

PHY 4424L
Optical Physics Laboratory: A laboratory course on geometric optics, interference, diffraction, materials and modern optics.

PHY 4604

PHY 4605

PHY 4803L

PHY 4942C

PHY 5015C

PHY 5081

PHY 5100
Topics in Contemporary Physics for Teachers: PR: C.I. The study of recent findings in a selected area such as particle physics, surface physics, planetary atmospheres, lasers, geophysics, etc.

PHY 5200C
Newtonian Mechanics for Teachers: PR: C.I. A lab, lecture, demonstration course studying selected topics in classical mechanics.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 5300C</td>
<td>Electricity for Teachers: PR: C.I. Circuits, multimeters, oscilloscopes, circuit elements.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHY 5302C</td>
<td>Electromagnetism for Teachers: PR: C.I. Gauss' Law, Biot-Savart Law, Ampere's Law, Faraday's Law, Lenz's law, motors, generators, AC circuits and Maxwell's Equations.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHY 5346</td>
<td>Electrodymanics I: PR: PHY 4324, MAP 3302, or C.I. Boundary value problems in electrostatics and magnetostatics. Maxwell equations. EM fields in matter, wave generation and propagation; wave guides, resonant cavities.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHY 5401C</td>
<td>Optics for Teachers: PR: C.I. Geometrical and physical optics, spectrometers and lasers.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHY 5431</td>
<td>Optical Properties of Materials: PR: PHY 4932, MPA 3302, PHY 4424. Normal modes (dipole and Raman active); microscopic theory of absorption, dispersion, and refraction; wave propagation, crystal optics; scattering mechanisms; optical activity.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHY 5446</td>
<td>Laser Principles: PR: PHY 3101, MAP 3302, PHY 4424. Classical introduction to the basic principles of laser gain media, properties of resonators and modes, description of specific laser systems.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHY 5465C</td>
<td>Wave Motion for Teachers: PR: C.I. Water waves, waves on strings, sound and vibrations.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHY 5500C</td>
<td>Thermal Physics for Teachers: PR: C.I. Engines, heat pumps, kinetic theory, phase changes, radiation, weather.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHY 5524</td>
<td>Statistical Physics: PR: PHY 3503, STA 3032, or C.I. A study of physical concepts and methods appropriate for the description of systems involving many particles. Ensemble theory, partition functions.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHY 5601</td>
<td>Quantum Physics for Teachers: PR: C.I. Hydrogen atom, diatomic molecules, heat capacity transition rates.</td>
<td>1(1,0)</td>
</tr>
<tr>
<td>PHY 5606</td>
<td>Quantum Mechanics I: PR: PHY 4605 or C.I. Basic postulates of quantum mechanics, operators, eigenvalues, parity, potential wells, harmonic oscillator, time dependent and time independent Schrodinger equation, matrix formulation, time independent perturbation theory.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHZ 3113</td>
<td>Introduction to Theoretical Methods of Physics: PR: MAP 3302. Analytical techniques to solve problems of physics.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHZ 3151</td>
<td>Computer Methods in Physics: PR: PHY 3101. Nonanalytical problems in physics and astronomy solved by approximation with computer assistance.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHZ 5150C</td>
<td>Computer Methods in Physics for Teachers: PR: C.I. Trajectories with air resistance, trajectories in rotating space colonies, refraction of waves in continuous media, luminosity patterns, temperature profiles.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHZ 5301C</td>
<td>Nuclear Physics for Teachers: PR: C.I. The interaction of ionizing radiation with matter, alpha, beta, gamma decay, fission, fusion, neutron activation, half lives, and equilibrium.</td>
<td>1(0,5,1,5)</td>
</tr>
<tr>
<td>PHZ 5304</td>
<td>Nuclear and Particle Physics: PR: PHY 4604 or equivalent. Particles and nuclei, symmetries and conservation laws, interactions, models.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHZ 5405</td>
<td>Condensed Matter Physics: PR: PHY 4604. Crystal lattice cell structure, phonons, free electron model, band theory of solids, Fermi surface, solid state applications, and polymers.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHZ 5505</td>
<td>Plasma Physics: PR: PHY 4324, or C.I. Introduction to theory and experimental basis of both weakly and highly ionized plasmas. Instabilities, plasma waves, nonlinear effects, controlled thermonuclear fusion.</td>
<td>3(3,0)</td>
</tr>
<tr>
<td>PHZ 5600</td>
<td>Special Relativity for Teachers: PR: C.I. Length contraction, time dialation, simultaneity, conservation of mass-energy, conservation of momentum, Compton scattering.</td>
<td>1(1,0)</td>
</tr>
</tbody>
</table>

328
PLA 3013
Law and the Legal System: A survey course designed to familiarize the student with the American legal system; ethical considerations, terminology, legal reasoning; and the role of the legal assistant.

PLA 3105
Legal Research: PR: PLA 3013 or C.I. A study of the various research tools used in legal investigation and the methods used to conduct legal research.

PLA 3155
Legal Writing: PR: PLA 3105. A study of legal writing format and technique and the preparation of memoranda and other legal documents, using research skills learned in PLA 3105.

PLA 3203
Civil Practice and Procedure: PR: PLA 3013 or C.I. The student becomes familiar with the Florida civil procedure before trial and acquires the ability to prepare basic pleadings.

PLA 3273
The Law of Torts: PR: PLA 3013 or C.I. Theories governing liability for civil injuries not arising from contractual obligations; systems and procedures used in preparation, trial and appeal of Torts cases.

PLA 3304
Criminal Law: Basic concepts of substantive criminal law. The course includes examination of elements of major crimes, criminal responsibility, legal defenses, and parties to crime.

PLA 3308
Criminal Procedure: PR: PLA 3013 or CCJ 3020 or C.I. Rules of criminal procedure, with emphasis on Florida rules, including right to counsel, bail, search and seizure, arrest, identification, trial, and post-trial proceedings.

PLA 3504
Property and Real Estate Law: PR: PLA 3013. Study of the law of real and personal property; real estate transactions and conveyances; closing procedures and title problems.

PLA 3XXX
Criminal Law: Basic concepts of substantive criminal law. The course includes examination of elements of major crimes, criminal responsibility, legal defenses, and parties to crime.

PLA 4003
Careers in Legal Studies: PR: Major in Legal Studies or C.I. Applications of Legal Studies. Students will explore options in legal studies, professional development, and ethics.

PLA 4020
Law and Society: Examination of the relationship between law and American society including the impact on the legal system and legal profession of major social movements.

PLA 4263
Evidence: PR: PLA 3013 and 3203 or C.I. An examination of statutes and cases that define rules of evidence for trial courts. Primary emphasis is on the Florida Evidence Code.

PLA 4408
The Law of Contracts: Study of the basic law of contracts as developed in Anglo-American law and as changed by modern statutes, including the Uniform Commercial Code. Florida contract law will be emphasized.

PLA 4433
Florida Partnerships and Corporations: Statutory requirements of Florida partnerships and corporations; creation and dissolution of business organizations, responsibilities of officers and basic rights of stockholders.

PLA 4483
Administrative Law: PR: PLA 3013 or PAD 3003. The law regarding governmental agencies with emphasis on the administrative process, Administrative Procedures Acts and special problems of state administrative law.

PLA 4584
Land Use and Environmental Law: PR: PLA 3013, 3504. Study of the law relating to private and public restraints on land use, including planning, zoning, subdivision and building regulations, with emphasis on recent interpretations by judiciary for environmental protection.

PLA 4585
Landlord and Tenant Law: PR: PLA 3013, LEA 3504. Study of the basic law regarding landlord and tenant relationship, both commercial and residential, as it applied to the practitioner.

PLA 4603
Estates and Trusts: PR: PLA 3013, 3504. A study of wills and trusts, and applicable legal principles of administration of estates through the processes of the Probate Court.

PLA 4623
Estate Administration: PR: PLA 4603. Study of the laws and procedures applicable to administration of estates.

PLA 4763 Law Office Practices: PR: PLA 3013. Organization, operation and management of law office. Interviewing techniques and practical application of work that is done in a law office.

PLA 4803 Domestic Relations Law: PR: PLA 3013, 3504. Role of the legal assistant in all phases of family and juvenile law. Fundamental procedures and principles applied by the courts to family problems.

PLA 4813 Juvenile Law and Procedure: PR: PLA 3013 or C.I. Examines both the substantive and procedural law for juvenile delinquency and dependency. Emphasis on Florida law and comparison with other jurisdictions.


POS 2041 American National Government: A study of the dynamics of American national government, including its structure, organization, powers, and procedures.

POS 2041H Honors American National Government. Same as POS 2041 with honors-level content.

POS 3122 State Government and Public Policy: A comparative study of American state governments, political processes, and public policies, with emphasis on Florida.

POS 3173 Southern Politics: PR: POS 2041 or C.I. Study of southern politics past and present. Emphasis on factors effecting changes in the region and the states. Southern and national relationship examined.

POS 3223 Public Opinion: A substantive and theoretical study of public opinion, with emphasis on opinion formation, opinion measurement, policy linkages. May include field experiences in polling.

POS 3235 Mass Media and Politics: PR: POS 2041 or C.I. Influence of media on campaigns, public officials, public opinion, the definition of political news, and selected public policies.

POS 3253 Contemporary Revolution and Political Violence: Theories and cases of revolutionary change and political violence in the contemporary world.

POS 3273 Voting and Elections: Theoretical and substantive inquiry into U.S. electoral system; includes focus on voter behavior as well as national and state electoral systems.

POS 3413 The American Presidency: PR: POS 2041 or C.I. Examination of historical and contemporary role of the presidency, including the presidential selection process and the office's evolution in status, powers, administrative responsibilities, leadership, and decision-making.

POS 3424 Congress and the Legislative Process: PR: POS 2041 or C.I. Examination of the Congress as an institution undergoing dynamic change; emphasis upon recruitment of legislators, institutional and informal rules, the committee system, legislative procedures.

POS 3443 Political Parties and Processes: PR: POS 2041 or C.I. In-depth study of the American political party system in the context of changing American politics; topics include development, organization, reforms, legislative and executive roles.

POS 3463 Interest Groups: PR: POS 2041 or C.I. Analyzes the nonelectoral behavior of economic, ideological, and citizen groups; political action committees; and the proliferation of interest organizations over the past quarter century.

POS 3703 Scope and Methods of Political Science: Introduction to the scope and methodology of political analysis. Extensive examination of the discipline, research design and methodology.
POS 4142 Metropolitan Politics: Analysis of political patterns, processes, and issues in American communities. Intergovernmental relations and structural and political arrangements in the existing and emerging metropolitan areas. AS 3(3,0)

POS 4206 Political Psychology: The psychological analysis of political behavior, with emphasis on the individual rather than the political system; includes political attitudes and communication, leadership, and personality influences on politics. AS 3(3,0)

POS 4246 Political Socialization: PR: POS 2041 or C.I. Analysis of recruitment and socialization processes. Identification of the agents and processes of political socialization in national and cross-cultural contexts. AS 3(3,0)

POS 4265 Power and Policy in the U.S.: PR: POS 2041 or C.I. Examination of the bases of political power in the U.S. In-depth study of socio-economic political linkages in the policy-making process. AS 3(3,0)

POS 4284 Judicial Process and Politics: Study of the formal and informal judicial process. Legal culture, bureaucratic model, judicial recruitment and outputs, comparative judicial behavior. AS 3(3,0)

POS 4412 Presidential Campaigning: PR: C.I. Introduces the process of candidate selection, convention behavior, actual campaign process and the transition of power. AS 3(3,0)

POS 4603 American Constitutional Law: PR: POS 2041 or C.I. Development of American federalism and national power, commerce clause, and nationalization of the economy. AS 3(3,0)

POS 4604 American Constitutional Law II: PR: POS 2041 or C.I. Development of civil liberties and civil rights in the American federal system. AS 3(3,0)

POS 4622 Politics and Civil Rights: Examination of development and issues of civil rights in the second reconstruction. Course emphasis process and analysis of policy. AS 3(3,0)

POL 4941 Political Science Internship: PR: C.I. Internship working with the national, state, county or municipal government. Assignments with selected civic organization, elected or appointed official. AS 3-9(0,3-9)

POS 5746 Quantitative Methods in Political Research: PR: C.I. Methods of model building and research design, including conceptualization and measurement of political variables; techniques of data collection and quantitative analysis and computer usage. AS 3(3,0)

POT 3204 American Political Thought: From its sources to the 20th century, including liberalism, puritanism, the Federalist, the rise of industrialism, resulting social movements, modern variations. AS 3(3,0)

POT 3302 Modern Political Ideologies: A study of modern ideologies since the French Revolution including liberalism, conservatism, capitalism, nationalism, fascism and anarchism. AS 3(3,0)

POT 4003 Political Theory: PR: POS 2041 or C.I. Examination of various normative approaches to the study of political science, stressing contemporary developments in the field. AS 3(3,0)

POT 4025 Ancient, Medieval and Early Modern Political Philosophy: Study of the development of political and social ideas in western thought from early Greece through the 17th century. AS 3(3,0)

POT 4054 Modern Political Philosophy: Study of the development of political and social ideas from the 18th century to the present. May be taken independently of POT 4045 (Ancient, Medieval and Early Modern Political Philosophy). AS 3(3,0)

POT 4066 Contemporary Political Theory: Introduction to the contemporary debate about the status of rights, utilitarianism, and liberalism, and communitarian marxist, libertarian, and feminist critiques of liberalism. AS 3(3,0)

POT 4314 Contemporary Democratic Theory: PR: POS 2041 or C.I. Study of democratic theories, emphasizing liberal democracy and its critics, elitist theories, participatory democracy, citizen participation, and relevance of empirical research to democratic theory. AS 3(3,0)

POT 4414 Marxist Political Theory: Survey of Marx & Engels and other thinkers, exposing the theoretical underpinnings of nations and groups who have adapted marxist principles for governance. AS 3(3,0)
PPE 3003

PPE 5055
Personality Theories: PR: G.A. or C.I. Critical theoretical models of personality development with applications to counseling, psychotherapy and psychological assessment.

PSB 3002

PSB 3442

PSB 3842

PSB 4013C

PSB 4103C

PSB 5005
Physiological Psychology: PR: PSB 3002 or C.I. An advanced survey of the physiological basis of behavior, emphasizing the relationship between the nervous system and behavior.

PSC 1121
Physical Science: PR: MAC 1104 or MGF 1203. Fundamental laws of mechanics, heat, waves, electricity, magnetism; chemical processes and equations, properties of gases, liquids, solids, solutions. Mathematical analysis and logic applied to conclusionism inferences.

PSC 1121L
Physical Science Lab: CR: PSC 1512. Experiments to apply the scientific method to observation and analysis in mechanics, heat, light, electricity and magnetism, chemical and physical transformations.

PSY 2013
General Psychology: An introductory survey of the basic principles, theories, and methods of contemporary psychology.

PSY 2013H
Honors General Psychology: Same as PSY 2013 with honors-level content.

PSY 2023
Careers in Psychology: PR: PSY 2013. An examination of various career opportunities in Psychology, including educational entry requirements, and related professional issues. Grades "S" or "U."

PSY 3204
Statistical Methods in Psychology: PR: STA 2014. Standard scores, confidence intervals, sampling distributions, hypothesis testing, correlation and regression as applied to research in psychology.

PSY 3214

PSY 3302
Psychological Measurement: PR: PSY 2013 and STA 2014 or 3023. A study of the theory underlying psychological tests and measurements procedures, including reliability, validity, and item analysis.

PSY 3624
Parapsychology: PR: PSY 2013. An examination of the history and development of research on paranormal phenomena, with special emphasis on recent developments in extrasensory perception and psychokinesis.

PSY 3951
Undergraduate Field Work: PR: C.I. Placement in a community agency for supervised experience in applications of psychology to community problems.

PSY 4215

PSY 4604
History and Systems of Psychology: PR: EXP 3404 and PPE 3003. Historical development of psychology, with emphasis on classical theoretical positions.
PUP 3204 Environmental Politics: An examination of politics and policy-making concerning issues of conservation, pollution and development of land, air, and water resources.
PUP 3314 Minorities in American Politics: Historical and contemporary role of minority groups in the American political process, including an examination of their electoral significance and relevant legislative, executive, and judicial policies.
PUP 3508 Introduction to Space Studies: Broad-based multidisciplinary introduction to space studies, providing familiarity with some technical aspects as well as the relationship between technical and public policy considerations.
PUP 4003 American Public Policy: PR: POS 2041 or C.I. Policy formation, implementation and evaluation, with a focus upon contemporary American problems, including the malapportionment of societal power and social conflict.
PUP 4323 Women and Politics: An examination of demands for change in the social, political, and economic status of women and the policy response of the system.
PUP 4503 Government and Science: PR: C.I. Examination of interface between science and government. Focus is upon governmental support for science, social accountability, and the role of the scientist-policy maker in comparative context.
PUP 4510 Space Policy: An examination of the politics and policy-making involved with the US space program in the context of domestic demands and other international space programs.
PUP 4602 Politics of Health: PR: C.I. Analysis of public health policies. Primary focus upon political processes, policymakers, and interest group interventions, including consumers and policy outcomes. Comparative health policies.
PUP 4931 Topics in Public Policy: Intensive analysis of a current policy problem. Sample topics include education, growth management, housing, affirmative action, welfare, and transportation. May be repeated once.
PUR 3100 Writing for Public Relations: PR: Grammar Proficiency Examination, and typing test. Development of skills in writing for public relations.
PUR 4000 Public Relations: Principles and practice of Public Relations including techniques, research tools publicity, and management.
PUR 4110 Public Relations Publications: PR: PUR 4000, PUR 3100. Provides basic principles and techniques of desktop production of public relations publications.
PUR 4800 Public Relations Campaigns: PR: PUR 4000 or C.I. Planning and execution of public relations campaigns for profit and non-profit organizations.
RAT 3241 Clinical Radiobiology: Application of the principles and theories of radiobiology to the clinical practice of radiation therapy.
RAT 3242 Oncologic Pathology: PR: Acceptance to program. Study of neoplastic diseases, including causative factors, characteristics, histologic grading, staging and treatment.
RAT 3614 Radiation Therapy Physics I: PR: Acceptance to program. Study of radiation production, properties, interactions, measurement, and protection.
RAT 4247 Radiation Oncology I: Methods of radiation therapy treatment of malignant conditions of the skin, oral cavity, pharynx, sinuses, thyroid, digestive and respiratory systems.
RAT 4248 Radiation Oncology II: Methods of treatment of malignant conditions of the nervous system, eye, reproductive system, urinary system, connective tissue, and lympho-reticular system.
RAT 4618C
Radiation Therapy Physics II: PR: RAT 3614. Study of radiation protection techniques, design considerations, modes and characteristics of decay, handling of radionuclides and clinical dosimetry.

RAT 4619C
Radiation Therapy Physics III: PR: RAT 4618. Study of treatment planning principles and techniques, including multiple beam therapy, rotation therapy, arc therapy, and irregular field techniques.

RAT 4804L
Clinical Education I: PR: RTE 3000, 3111, 3528, 3684, 3804, 3457, 3549, or C.I. Supervised clinical practice in patient care and orientation to radiation therapy simulation, and treatment planning and delivery procedures.

RAT 4814L
Clinical Education II: PR: RAT 4804. Supervised clinical practice in patient care, education, simulation, treatment planning and delivery and utilization of treatment units.

RAT 4824L

RED 3012
Basic Foundations of Reading: PR: Junior standing or C.I. Introduction to reading: principles, procedures, and current practices. Study of specific techniques and materials for word attack and comprehension.

RED 4519
Diagnostic and Corrective Reading Strategies: PR: RED 3012 or C.I. and admission to Phase II. An investigation of the needs of individual learners in reading instruction. Organization and techniques for promoting optimum reading growth. Concurrent school experiences required.

RED 5147
Developmental Reading: Principles, procedures, organization, and current practices in the elementary reading program. Materials and methods of instruction.

RED 5514
Classroom Diagnosis and Development of Reading Proficiencies: PR: RED 5147 or equivalent. Classroom diagnosis and corrective teaching in reading; instructional materials. Case study required.

REE 3043
Fundamentals of Real Estate: PR: Junior standing. Emphasis placed upon the application of basic tools of economics, finance, and marketing to solve private and public sector real estate problems. Not usable for credit by Finance majors.

REE 4103
Real Estate Appraisal and Valuation: PR: FIN 3403. Focus on the fundamentals of real estate valuation utilizing tools of financial and economic analysis.

REE 4204
Real Estate Finance: PR: FIN 3403. Focus on the fundamentals of real estate finance utilizing tools of financial and economic analysis.

REE 4303
Real Estate Investment Analysis: PR: FIN 3403. Focus on real estate decision-making in the private sector utilizing tools of financial and economic analysis.

REE 4433
Real Estate Law: PR: Junior standing. An analysis of real estate law with emphasis on Florida statutes and case law.

REL 2300
World Religions: Basic features and historical background on Confucianism, Taoism, Hinduism, Buddhism, Judaism, Christianity, and Islam.

REL 3600
Studies in Judaism: An inquiry into the foundations and development of Jewish thought in various parts of the world.

RET 3026C
Introduction to Respiratory Care. PR: Admission to the professional upper-division Respiratory Therapy Program. Fundamental respiratory principles and practices will be studied. Introduction to the profession and basic methods are covered. Lecture and lab.

RET 3264C
Mechanical Ventilation: PR: RET 3026C. Function and use of mechanical ventilators, patient evaluation methods. All forms of ventilatory support will be studied. Lecture and laboratory.

RET 3483
Respiratory Disease Assessment: PR: RET 3026C. Physical examination of the chest, demonstrating equipment use, methods and theory. Chest radiography will be extensively covered. Lecture and demonstration.

Pediatric Respiratory Care: PR: RET 3026. The study of childhood respiratory diseases, congenital problems, infections, metabolic disorders, and AIDS.


Clinical Practice II: PR: C.I. Patient care with advanced respiratory equipment. Tracheostomy care. Introduction to cardiopulmonary resuscitation. Introduction to critical care units. Advanced life support techniques and equipment.


Cardiopulmonary Diagnostics I: PR: RET 4244C. Non-invasive cardiac diagnostics, including echocardiography, nuclear cardiology, and stress testing.

Cardiopulmonary Diagnostics II: PR: RET 4244C and RET 4284C. Invasive cardiac diagnostic and therapeutic measures, including cardiac catheterization, PTCA, streptokinase use, and heart surgery.

Pulmonary Function Studies: PR: RET 3026C. Detailed procedures and tests to provide information for diagnosis of pulmonary disease. Lecture-laboratory.

Vascular Ultrasound: Study of application of ultrasound in the diagnosis of vascular diseases. Includes doppler and color flow doppler examination of arterial and venous systems.

Advanced Cardiac Ultrasound: PR: RET 4284 or C.I. Study of advanced applications of ultrasound in the diagnosis of cardiac abnormalities. Two-dimensional echo, conventional doppler, and color doppler covered.

Chest Medicine: PR: RET 3026. Disease states treated medically in conjunction with one or more modalities of respiratory therapy.


Selected Topics in Respiratory Therapy: PR: C.I. Current topics of adult critical care, as they apply to the advanced study of respiratory therapy.

Research Methods in Cardiopulmonary Physiology: Introduction to methods used in scientific and medical research in cardiopulmonary physiology. Literature review, experimentation, and data analysis.

Principles of Risk and Insurance: PR: FIN 3403. Emphasis is on insurance as a risk-handling device, with attention given to risk assumption, risk avoidance, and loss prevention.

Introduction to Radiologic Sciences: Study of medical imaging and radiation therapy principles and procedures. For prospective and beginning majors in Radiologic Sciences.
ATE 3050
**Transitional Concepts in Radiologic Sciences:** PR: RT Status. Principles and procedures to prepare for baccalaureate radiologic sciences.

ATE 3111C
**Introduction to Patient Care:** PR: Acceptance to the program. Provides the student with fundamentals of patient care methods related to radiography.

ATE 3367
**Medical Physics:** PR: RTE 3684C or C.I. Study of radiation production, characteristics, detection and measurement, and protection, including barrier thickness calculation and shielding.

ATE 3418C
**Principles of Radiographic Exposure I:** An introduction to the technical variables influencing radiographic and fluoroscopic image quality, including equipment considerations, prime exposure factors, image receptors, and accessory exposure devices.

ATE 3457C
**Principles of Radiographic Exposure II:** PR: RTE 3418 or C.I. Study of exposure and photographic processing variables influencing radiographic image quality.

ATE 3503C
**Radiographic Procedures I:** PR: Admission to the program. Provides fundamental knowledge of radiographic positioning, equipment manipulation, and quality evaluation of radiographic studies of the chest, abdomen, routine contrast studies, and the upper extremity.

ATE 3513C
**Radiographic Procedures II:** PR: RTE 3503C or C.I. Continuation of radiographic positioning, equipment manipulation, and quality evaluation of radiographic studies of the shoulder, bony thorax, lower extremity, vertebral column, cranium, and facial bones.

ATE 3684C
**Physics of Image Production:** PR: College Physics II. Physics of diagnostic radiology, including radiation production, physical principles of generator operation, and characteristics of electromagnetic radiation.

ATE 3804
**Clinical Education I:** PR: RTE 3111C or C.I. Supervised clinical practice in radiographic procedures, radiation protection, patient care, equipment.

ATE 4207
**Methods in Radiology Management:** Concepts of radiology, department management, including principles, personnel management, evaluation and improvement techniques, budgeting, financial considerations and legal aspects, and JCAH quality assurance specifications.

ATE 4209
**Radiological Administrative Practice:** A directed practice in the management of a radiology department, with application of theory and methodology.

ATE 4385
**Radiobiology:** PR: RTE 3367C. A study of the effects of ionizing radiation on biologic systems. The responses at the cellular and total organism level are investigated.

ATE 4563
**Special Radiographic Procedures:** PR: RTE 3513C or C.I. An introduction to special imaging, techniques in radiology, including vascular and nonvascular procedures.

ATE 4573
**Advanced Imaging Modalities:** PR: RTE 3563 and CGS 1060 or C.I. A study of the physical principles and applications of computer tomography, digital imaging, ultrasound, magnetic resonance imaging, and other specialized modalities.

ATE 4473
**Quality Assurance:** PR: RTE 3367C or C.I. Quality control evaluation of radiographic, fluoroscopic and tomographic imaging systems. Implementation procedures, equipment selection criteria, and processing quality control are also addressed.

ATE 4763
**Anatomy for the Medical Imager:** A study of the normal anatomical structures and interrelationships of structures as demonstrated in a radiographic and cross-sectional imaging reference.

ATE 4782
**Pathophysiology:** PR: C.I. The study of radiologic science in the diagnosis and treatment of disease.

ATE 4814L
**Clinical Education II:** PR: RTE 3804. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the chest, abdomen, extremities, and shoulder girdle.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>RTE 4824L</td>
<td>HPA 6(0.24)</td>
<td>Clinical Education III: Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the pelvis, thoracic cavity, vertebral column and portable and surgical radiography.</td>
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<tr>
<td>RTE 4834</td>
<td>HPA 4(0.16)</td>
<td>Clinical Education IV: Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the cranium, facial bones, and special procedures.</td>
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<tr>
<td>RTE 4844</td>
<td>HPA 4(0.16)</td>
<td>Clinical Education V: Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on surgical and special procedure examinations.</td>
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</tr>
<tr>
<td>RTE 4854</td>
<td>HPA 2(0.8)</td>
<td>Advanced Clinical Practicum: Supervised clinical experience and/or practice in computed tomography, interventional, vascular, and magnetic resonances imaging.</td>
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<tr>
<td>RTE 4903</td>
<td>HPA 2(0.8)</td>
<td>Directed Study in Radiologic Education: Directed activity in classroom instruction in radiologic technology.</td>
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<tr>
<td>RTV 3000</td>
<td>AS 3(3.0)</td>
<td>Foundations of Broadcasting: Nature of the media, the mechanics of operation, history, economics, programming, and internal and external control.</td>
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<tr>
<td>RTV 3200</td>
<td>AS 4(1,3)</td>
<td>Broadcast Techniques: Introduction to audio production and multi-camera video production. Instruction in audio mixers, microphones, and tape recorders and TV studio production equipment.</td>
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<tr>
<td>RTV 3210</td>
<td>AS 4(1,3)</td>
<td>Radio Production: The production of music (live and recorded), talk, interview, discussion, sports, and documentary, including performance (talent and announcing) and direction.</td>
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<tr>
<td>RTV 3223</td>
<td>AS 3(2,1)</td>
<td>Lighting for Video: Basic lighting techniques for both studio and location, single and multiple-camera video production.</td>
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<tr>
<td>RTV 3231</td>
<td>AS 4(1,3)</td>
<td>Broadcast Announcing and Performance: A study of communication problems on camera and microphone. Development of performance skills in announcing, interviewing, narrating, and reporting.</td>
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<tr>
<td>RTV 3260</td>
<td>AS 4(1,3)</td>
<td>Electronic Field Production/Video Editing: Introduction to non-studio video instruction. Electronic field production and electronic news gathering. Utilization of portable video equipment and control track videotape editing equipment.</td>
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<tr>
<td>RTV 3263</td>
<td>AS 3(1,3)</td>
<td>Advanced Video Post-Production: Concentration on A/B roll editing, digital video effects and electronic graphics. Introduction to non-linear video editing systems.</td>
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<tr>
<td>RTV 3300</td>
<td>AS 4(1,3)</td>
<td>Broadcast Newswriting: Grammar Proficiency Examination and departmental typing exam. The study and practice of writing news for radio and television.</td>
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<tr>
<td>RTV 3301</td>
<td>AS 4(1,3)</td>
<td>Advanced Broadcast Newswriting: The writing of in-depth news items, including documentaries, features, and investigative materials.</td>
<td></td>
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<tr>
<td>RTV 3501</td>
<td>AS 3(1,2)</td>
<td>Broadcast Copywriting: Grammar Proficiency Examination and School Typing Exam. Preparation of written public service and commercial copy for radio and television.</td>
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<tr>
<td>RTV 3810</td>
<td>AS 3(2,1)</td>
<td>Broadcast Promotion: Examination of techniques that stations use to keep listeners and viewers and to attract new ones. Use of advertising and merchandising.</td>
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<tr>
<td>RTV 3942</td>
<td>AS 1(0.3)</td>
<td>Television Practicum: Primarily an activity course. Student will serve in some position of responsibility for UCF Weekly News or other TV activity. Can be repeated.</td>
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<tr>
<td>RTV 4206</td>
<td>AS 4(1,3)</td>
<td>Television Directing: Preparation and direction of programs, with emphasis on dramatic values of composition.</td>
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<tr>
<td>RTV 4270</td>
<td>AS 3(2,1)</td>
<td>Radio Production and Programming: The study and production of current radio formats and their effects on today's radio listener.</td>
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<tr>
<td>RTV 4301</td>
<td>AS 3(1,3)</td>
<td>Television News: Practical application of TV news theory.</td>
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<td>Course Code</td>
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<tr>
<td>RTV 4403</td>
<td>Radio, Television and Society: PR: RTV 3000 for RTV majors. A study of the impact of electronic media upon the habits, customs, and thinking of our times. Considerations of internal media problems.</td>
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<td>RTV 4404</td>
<td>International Broadcasting: PR: RTV 3000. Comparative analysis of national broadcast systems. World broadcasting as a social, political, and economic force.</td>
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<tr>
<td>RTV 4700</td>
<td>Regulation of Broadcasting: PR: RTV 3000. Federal, state, local and self-regulatory agencies and practices which govern electronic media.</td>
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<tr>
<td>RTV 4800</td>
<td>Broadcast Management: PR: RTV 4700. Examination of broadcast management problems in station operations at local, regional, and national levels.</td>
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<tr>
<td>RUS 1120</td>
<td>Elementary Russian Language and Civilization I: Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.</td>
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<tr>
<td>RUS 1121</td>
<td>Elementary Russian Language and Civilization II: PR: RUS 1115, RUS 1120, or experience with this language. Continuation of RUS 1120.</td>
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<tr>
<td>RUS 2210</td>
<td>Intensive Russian Conversation: PR: One year of Russian or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.</td>
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<tr>
<td>RUS 2230</td>
<td>Intermediate Russian Language and Civilization I: PR: RUS 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.</td>
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<tr>
<td>RUS 2231</td>
<td>Intermediate Russian Language and Civilization II: PR: RUS 2230 or equivalent. Continuation of RUS 2230, with emphasis on Russian civilization.</td>
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<tr>
<td>RUS 3240</td>
<td>Russian Conversation: PR: RUS 2231 or equivalent. Development of skills in conversation and comprehension through practice. This course may be repeated for credit. When repeated, credit will apply to general electives only.</td>
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<tr>
<td>RUS 3420</td>
<td>Russian Composition: PR: RUS 2231 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.</td>
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<tr>
<td>RUS 4411</td>
<td>Advanced Russian Conversation: PR: RUS 3240. An advanced conversation course on directed topics from various domains of public life and disciplines.</td>
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<tr>
<td>RUW 3100</td>
<td>Survey of Russian Literature I: PR: RUS 2231. A survey course of the major Russian writers and poets from Pushkin to Turgenev.</td>
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<tr>
<td>RUW 3101</td>
<td>Survey of Russian Literature II: PR: RUS 2231. A survey course of the major Russian writers and poets from Dostoyevsky to the present.</td>
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<tr>
<td>RUW 4330</td>
<td>Russian Poetry: PR: RUS 2231. A survey of Russian poetry from Zhukovsky to the present.</td>
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<tr>
<td>SCE 3310</td>
<td>Teaching Science in Elementary School: PR: Junior standing or C.I. Selected concepts; organizing for instruction; techniques; evaluation procedures.</td>
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<td>Course Code</td>
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<td>Prerequisites</td>
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<tr>
<td>SCE 4023</td>
<td>Teaching Science and Technology to Young Children: Provides the knowledge and skills needed to</td>
<td>ED 3(3,0)</td>
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<td>plan and implement a discovery science/design technology program for young children in an</td>
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<td>integrated, interactive curriculum.</td>
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<td>SCE 4360</td>
<td>Science Instructional Analysis: PR: EDG 4321 or C.I. Course objectives for a school curriculum</td>
<td>ED 4(3,2)</td>
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<td>and methods and materials for the middle grades and high school.</td>
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<tr>
<td>SCE 5716</td>
<td>Methods in Elementary School Science: Organization of instruction in elementary school science</td>
<td>ED 3(3,0)</td>
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<td>including methods, evaluation, materials, strategies, and current practices.</td>
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<tr>
<td>SCE 5825</td>
<td>Space Science for Educators: PR: Senior standing or C.I. Introduction to space science, manned</td>
<td>ED 3(3,0)</td>
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<td>space flight and space education curriculum.</td>
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<tr>
<td>SLS 1501</td>
<td>Strategies for Success in College: This course is designed to address the development of life-skills</td>
<td>ED 3(2,1)</td>
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<td>necessary for the contemporary student to appropriately adjust to college requirements that lead to</td>
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<td>self-mastery and the total concept of lifetime wellness.</td>
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<tr>
<td>SLS 2311</td>
<td>Overview of Selected Medical Careers: Introduction to medical careers in medicine, dentistry,</td>
<td>AS 1(1,0)</td>
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<tr>
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<td>veterinary medicine, osteopathic medicine, optometry, chiropractic medicine, podiatry, and</td>
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<td>pharmacy.</td>
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<tr>
<td>SOP 3004</td>
<td>Social Psychology: PR: PSY 2013. Effects of social situations and social variables on the behavior of</td>
<td>AS 3(3,0)</td>
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<td></td>
<td>individuals.</td>
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<tr>
<td>SOP 3724</td>
<td>The Psychology of Racial Prejudice: PR: PSY 2013. Examination of literature relating to prejudice</td>
<td>AS 3(3,0)</td>
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<td>toward ethnic groups; effects of racism on individuals, development and maintenance of prejudice,</td>
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<td>and possible ways to reduce prejudice.</td>
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<tr>
<td>SOP 3742</td>
<td>Psychology of Women: PR: PSY 2013. Examination of the psychological impact of changing sex roles</td>
<td>AS 3(3,0)</td>
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<td>on women in modern society. Topics include childrearing, working women, and sex differences in</td>
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<td>personality and cognition.</td>
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<tr>
<td>SOP 3772</td>
<td>Sexual Behavior: PR: PSY 2013. Physiological, social, and clinical aspects of human sexuality.</td>
<td>AS 3(3,0)</td>
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<td>SOW 3104</td>
<td>Assessing Human Development: Skill development in assessing &quot;person-in-environment&quot; throughout</td>
<td>HPA 3(3,0)</td>
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<td></td>
<td>the life cycle. Study of the interaction of bio-psychosocial, cultural, and systematic influences</td>
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<td>on human functioning.</td>
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<tr>
<td>SOW 3111</td>
<td>Assessing Human Systems: Development of skills in assessing families, groups, organizations, and</td>
<td>HPA 3(3,0)</td>
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<td></td>
<td>communities, their impact on human functioning, and their potential for providing social support.</td>
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<tr>
<td>SOW 3203</td>
<td>Social Welfare and Community Resources: Study of social welfare, programs and services, including</td>
<td>HPA 3(2,1)</td>
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<td>socio-cultural, political, economic, and historical forces affecting changes in societal responses</td>
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<td>to human needs.</td>
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<td>SOW 3300</td>
<td>Generalist Practice in Social Work: Study of social work functions, knowledge, values, and skills.</td>
<td>HPA 3(2,1)</td>
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<td>Development of ability to use a generalist model of practice.</td>
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<tr>
<td>SOW 3352</td>
<td>Interpersonal Skills in Social Work Practice: Study and practice of interviewing, group leadership,</td>
<td>HPA 3(1,2)</td>
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<td>written communication, and oral presentations, in consensual as well as conflictual contexts of</td>
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<td>social work.</td>
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<td>SOW 3401</td>
<td>Social Work Research: PR: CGS 1060C. Study of quantitative and qualitative methods of building</td>
<td>HPA 3(3,0)</td>
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<td>knowledge for social work and the ethical use of research in professional practice.</td>
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<td>SOW 3420</td>
<td>Social Work with Minorities: Study of oppressed groups and relevant social work interventions;</td>
<td>HPA 3(2,1)</td>
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<td>skill development in work with, and in behalf of, people of minority groups.</td>
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<tr>
<td>SOW 4232</td>
<td>Social Welfare Policies and Issues: PR: SOW 3203 or equivalent. Development of skills needed to</td>
<td>HPA 3(3,0)</td>
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<td>critically analyze social welfare goals, structures, and practices. Proposes improvements in</td>
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<td>societal resource systems.</td>
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SOW 4341  
Micro-Level Roles and Interventions in Social Work: PR: SOW 3300, SOW 3352. Study and simulated practice of roles and tasks in systemic problem solving with individuals, families and supportive and remedial groups.

SOW 4343  
Macro-Level Roles and Interventions in Social Work: PR: SOW 3300, SOW 3352. Study and simulated practice of roles and tasks in systemic problem solving to obtain and improve social welfare resources within organizations and communities.

SOW 4431  
Evaluating Social Work Practice and Service Programs: PR: SOW 3401, SOW 3300. The study of systematic data collection and of measurement of change in individuals, families, groups, programs, and communities.

SOW 4510  
Field Education: PR: Completion of required courses in major; GPA 2.5 in major. CR: SOW 4522, SOW 4620. Supervised learning experiences in agencies which relate social work practice to theory, involving 420 clock hours in the field.

SOW 4522  
Field Education Seminar: PR: Completion of required courses in major; CR: SOW 4510, SOW 4520. Weekly seminar to examine the field experience and to relate theory with practice situations.

SOW 4602  
Social Work in Health Settings: Study of social work roles, interventions, and issues related to helping patients in health settings.

SOW 4645  
Social Services for the Elderly: Development of interventive skills for obtaining, providing, and improving social services in behalf of elderly persons and their families.

SOW 4654  
Children’s Services: Study of societal responses to children’s needs. Development of skills for preventing family breakdown, placing children in alternative care, and reuniting children with their families.

SOW 5105  
Human Behavior and Social Environment I: Individual and study of human development and psychosocial functioning of individuals at various life stages with particular attention to implications of human diversity.

SOW 5106  
Human Behavior and Social Environment II: Social Systems: Study of the patterns and dynamics of families, groups, organizations, and communities from a social work and a systems perspective.

SOW 5132  
Client Populations: Study of human diversity, focusing on the needs, resources, problems and service issues of several identified minority client populations.

SOW 5235  
Social Welfare Policies and Services: Study of societal responses to human needs; forces shaping social welfare systems; and frameworks for analyzing social policies and programs.

SOW 5305  
Social Work Practice I: Generalist Practice: Study of social work functions, knowledge, values, roles and skills; the use of a generalist model of practice.

SOW 5306  
Social Work Practice II: Intervention Approaches: Study of selected social work theories, strategies, and techniques for helping people and improving system responsiveness to human needs.

SOW 5355  
Studies in Urban Social Work Practice: Analysis of one or more urban practice issues and approaches. May be repeated for credit.

SOW 5373  
Clinical Supervision: Supervisory theory and practice in clinical settings.

SOW 5404  
Social Work Research: Study of group research designs in social work; quantitative analyses; and related ethical issues.

SOW 5432  
Evaluating Social Work: Study of single case designs in social work; recording methods; behavioral and standardized measures; applications to individuals, families, groups, programs, communities.

SOW 5532  
Field Education I: Generalist Practice: CR: SW Practice I. Supervised practice of social work in an agency for 224 clock hours.
SOW 5533
Field Education II: Interventions: PR: SOW 5532 Field Education I. CR: SW Practice II. Continuation of SOW 5532 Field Education I in the same field agency for 224 clock hours.

SOW 5525
Social Work with Women: Alternative approaches to the treatment of women in the urban setting.

SOW 5555
Child Abuse: Treatment and Prevention: The social worker's role and interventions with victims of child abuse and their family members.

SOW 5562
Strategies in Employee Assistance Programs: Techniques for establishing, providing, and evaluating services to people with problems which affect job performance.

SOW 5712
Interventions with Substance Abusers: Strategies for working with persons who abuse drugs, alcohol, and other substances.

SPA 3000

SPA 3002
Introduction to Communicative Disorders: Etiology, symptoms, and methods of diagnosing and treating communicative disorders. For beginning and prospective majors in communicative disorders.

SPA 3050
Clinical Observation and Practice: PR: SPA 3550. C. I. Observation and supervised participation in speech pathology and audiology in the university clinic and local clinics. May be taken twice for credit.

SPA 3101
Physiological Bases of Speech and Hearing: PR: SPA 3002. An introduction to the anatomical, physiological, and physical elements underlying the communication process.

SPA 3112
Basic Phonetics: Physiological descriptions and visual notation of speech patterns and regional dialects.

SPA 3112L
Basic Phonetics Laboratory: Students will have practical experiences in transcription of normal and deviant speech.

SPA 3333
Introduction to Signed English and Culture of the Deaf. Vocabulary and grammar through introductory level. Conceptual basis of ASL discussed.

SPA 3550

SPA 3550L
Clinical Methods in Communicative Disorders Laboratory: Students will have practical experience in analysis of live and videotaped diagnosis and therapy sessions.

SPA 4011
Fundamentals of Speech and Hearing Science: Lectures and demonstrations in basic acoustics and speech acoustics. Measurement of sound level and resonance. Discussion of vocal frequency, speech duration and intensity, spectrographic analysis, wave composition, speech recognition, and voice quality.

SPA 4032
Audiology I: Introduction to physics of sound, anatomy of hearing mechanism, pure tone audiometry, hearing aids, problems of the hearing handicapped. Clinical skills development will be required.

SPA 4033
Audiology II: PR: SPA 4030. An overview of medical aspects of hearing loss, electrophysiological audiometry, and other differential diagnostic testing.

SPA 4201

SPA 4201L
Communicative Disorders: Articulation Laboratory: Students will have practical experience in diagnosis and treatment in articulation disorders.

SPA 4210

SPA 4222
SPA 4222L  
Nonorganic Speech Disorders Laboratory: Students will have practical experience in diagnosis and treatment in nonorganic speech disorders.

SPA 4251  

SPA 4251L  
Organic Speech Disorders Laboratory: Students will have practical experience in observations of organic speech disorders.

SPA 4310  
Audiology II: PR: SPA 4032. An overview of medical aspects of hearing loss, electrophysiological audiometry, and other differential diagnostic testing.

SPA 4321  

SPA 4380  
Introduction to American Sign Language: Development of ASL vocabulary and grammar. Deaf culture, literature, research examined.

SPA 4381  
Intermediate American Sign Language: Expansion of ASL vocabulary with increased development of knowledge concerning deaf culture.

SPA 4382  
Intermediate American Sign Language: Conversation. Emphasis on refining fluency receptively and expressively. Practicum with the deaf community.

SPA 4402  

SPA 4402L  
Communicative Disorders: Language Laboratory: Students will have practical experience in diagnosis and treatment in language disorders.

SPA 4412  
Augmentative Communication Systems: PR: LIN 3710, SPA 4032. Students will learn the rudiments of nonverbal communication systems, for example, Bliss, Rebus, Manual Singing, Language Boards, and finger spelling.

SPA 4556  
Therapeutic Communication: PR: Graduate status or C.I. Practical interviewing and counseling in the area of communicative disorders.

SPA 4941  
Practicum in Communicative Disorders.

SPA 5005  
Survey of Communicative Disorders: A survey of speech, language, and hearing disorders for habilitative personnel and other interested professionals.

SPA 5120  
Physiological Acoustics: PR: SPA 4032: Graduate status or C.I. Lectures, readings, and experiments pertaining to the subjective reception of sound.

SPA 5225  
Fluency Disorders: PR: Graduate status or C.I. Identification and evaluation of disorders of rhythm. Emphasis will be on methods of intervention in disorders of fluency.

SPA 5225L  
Fluency Disorders Laboratory: PR: Graduate status or C.I. Practical application of clinical skills in fluency disorders.

SPA 5236  

SPA 5307  
Differential Diagnosis of Auditory Disorders: PR: SPA 4032; Graduate status or C.I. Clinical techniques in pure tone speech, acoustic impedance, and electrophysiological response audiometry.

SPA 5327  
Aural Habilitation/Rehabilitation: PR: Graduate status or C.I. Principles and procedures involved in speech and language acquisition management, utilization of residual hearing, speech reading, and the use of hearing aids.

342
SPA 5404  
Language Disorders: Preschool: PR: Graduate status or C.I., LIN 4710, SPA 4402. Graduate students will apply their knowledge of the normal processes of language development to the diagnosis and intervention of communicative impairments of infants and toddlers.

SPA 5553L  
Differential Diagnosis in Speech and Language Laboratory: PR: SPA 6204, 6403, 6211, 5805. Assignment to diagnostic teams to apply the diagnostic techniques presented in SPA 5553. Experiences include test administration, interviewing, writing diagnostic reports, and oral presentations.

SPA 5600  
Administration and Management of Communicative Disorders Programs: PR: SPA 3002. Methods and techniques for organization and administration of speech-language and hearing disorders in public school, hospital, rehabilitation center, and private practice facilities.

SPA 5805  
Research in Communicative Disorders: PR: STA 4163, graduate status or C.I. Introduces the student to empirical research in the area of communicative disorders. Emphasis is on hypothesis testing, methodology, analysis, and interpretation of results.

SPC 1600  
Fundamentals of Oral Communication: Use of the body and voice; participation in various speaking situations; planning, organizing, and delivering public speeches.

SPC 1600H  
Honors Fundamentals of Oral Communication: PR: University Honors Program. Same as SPC 1600 with honors-level content.

SPC 3301  
Interpersonal Communication: Nature of the communication process; variables affecting the process and the individuals involved. Analysis of communication models, interactant behavior, situational cues, verbal and non-verbal messages.

SPC 3425  
Group Interaction and Decision-Making: A study of small group processes. Attention is given to problem solving, leadership emergence, conformity behavior, and group member role responsibilities.

SPC 3445  
Leadership Through Oral Communication: A theoretical and practical investigation of leadership in oral communication situations, principles of parliamentary law, and approaches to problem solving.

SPC 3511  
Argumentation and Debate: PR: SPC 1600 or C.I. Study and practice in the preparation and delivery of argumentative speeches emphasizing argument, evidence, and organization.

SPC 3601  
Advanced Public Speaking: PR: SPC 1600 or C.I. Advanced training in selecting and organizing materials for various types of speeches. Practice in thinking and speaking before audiences.

SPC 4330  
Nonverbal Communication: Review of current behavioral research in such areas as proxemics, kinesics, physical characteristics, tactile communication, and paralanguage. Lectures are supplemented by frequent nonverbal exercises.

SPC 4350  
Studies in Listening: Analysis of current trends, professional literature, and resource materials bearing upon the teaching of listening. Practice in listening; preparing listening experiences; oral and written reports.

SPC 4440  
Group Dynamics: A study of human behavior in group situations.

SPC 4540  
Attitudes and Communication: A survey of the immediate and direct ways in which persuasive communications and social groups come to influence attitudes.

SPC 5200  
Evolution of Communication Theory: General Survey: Major communication trends from classical era to the present. Comparison of Aristotelian and non-Aristotelian rhetorics. Contributions of principal figures will be discussed.

SPN 1120  
Elementary Spanish Language and Civilization I: Designed to initiate the student to the major language skills. Open only to students with no previous experience with this language.

SPN 1121  
Elementary Spanish Language and Civilization II: PR: SPN 1115, SPN 1120 or experience with this language. Continuation of SPN 1120.
SPN 1170 AS 8(16,10)
Elementary Spanish Study Abroad: Elementary Spanish language and civilization taught in the native environment.

SPN 2140 AS 3(3,0)
Business Spanish I: Spanish language and culture for beginning Spanish language students from a business professional perspective. Emphasis on communicative skills in a professional setting. (Does not fulfill University foreign language requirement.)

SPN 2230 AS 3(3,1)
Intermediate Spanish Language and Civilization I: PR: SPN 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

SPN 2231 AS 3(3,1)
Intermediate Spanish Language and Civilization II: PR: SPN 2230 or equivalent. Continuation of SPN 2230, with emphasis on Spanish civilization.

SPN 2240 AS 3(3,1)
Intensive Spanish Conversation: PR: One year of Spanish or equivalent. Practical use of the language, leading toward fluency and correctness in speaking at the intermediate level.

SPN 3141 AS 3(3,0)
Business Spanish II: PR: C.I. Continuation of Business Spanish I.

SPN 3142 AS 3(3,0)
Business Spanish III: PR: C.I. Continuation of Business Spanish II.

SPN 3241 AS 3(3,0)
Spanish Conversation: PR: SPN 2231 or equivalent. Development of skills in conversation and comprehension through practice. This course may be repeated for credit. When repeated, credit will apply to general electives only.

SPN 3340 AS 3(3,0)
Spanish for Native Speakers: PR: Must be a native speaker. Intensive Spanish for native speakers who have had little or no formal training in the language.

SPN 3420 AS 3(3,0)
Spanish Composition: PR: SPN 2231 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.

SPN 4143 AS 3(3,0)
Business Spanish IV: PR: C.I. Advanced course in business terminology and development of advanced language skills.

SPN 4410 AS 3(3,0)
Advanced Spanish Conversation: PR: SPN 3241. Advanced conversation on directed topics from various disciplines: literature, art, psychology, philosophy, music, business, and the sciences.

SPN 4420 AS 3(3,0)
Advanced Spanish Composition: PR: SPN 3420. Readings and written imitations of modern literary styles in the form of themes, sketches, poems, and original stories.

SPN 4510 AS 3(3,0)
Spanish Civilization and Culture: PR: SPN 3241 or SPN 3420. A study of Spanish civilization and culture from Pre-Roman times to the present. Conducted in Spanish.

SPN 4520 AS 3(3,0)
Latin American Civilization and Culture: PR: SPN 3241 or SPN 3420. An overview of the currents in Latin American culture and civilization from the Pre-Columbian period to the present. Conducted in Spanish.

SPN 4780 AS 3(3,0)
Spanish Phonetics: PR: SPN 3241 and 3420. Students will learn the basic principles of Spanish pronunciation and perfect the correct pronunciation of Spanish through intensive practice and oral drill.

SPN 4800 AS 3(3,0)
Spanish-American Syntax: The course examines the Spanish language from its beginning to the present, with special emphasis as it is written and spoken in Latin America and the U.S.

SPN 4801 AS 3(3,0)
Spanish Morphosyntax: PR: SPN 3100 or 3101 or 3130 or 3131 or 3420. Emphasizes the structure as well as the capacity for recognizing the differences between semantics, morphology, syntax, and phonology in the Spanish language, as well as the use and correct application of criterion when analyzing texts. Taught in Spanish.

SPW 3100 AS 3(3,0)
Survey of Spanish Literature I: PR: SPN 2231 or equivalent. Main literary currents and works from the Middle Ages through the Eighteenth century.

SPW 3101 AS 3(3,0)
Survey of Spanish Literature II: PR: SPN 2231 or equivalent. Main literary currents and works of the Nineteenth century to the present.
Survey of Latin-American Literature I: PR: SPN 2231 or equivalent. Main literary currents and works from the colonial period to the Nineteenth Century Romanticism.

Survey of Latin-American Literature II: PR: SPN 2231 or equivalent. Main literary currents and works of the Nineteenth century from the Realism to the present.

Modern Hispanic Theatre Workshop I: PR: Departmental consent. Introduction to fundamental actor’s technique and practice in Spanish. Short scenes will be performed in class.


Spanish Short Story: PR: SPN 2231 or equivalent. A study of representative 19th and 20th-century Spanish short stories and their authors.

20th Century Spanish Novel: PR: SPN 3101 or 3131. Major works by the leading authors of the 20th century. Texts selected are studied not only for their aesthetic value, but also in terms for their historical and cultural significance.


Latin-American Narrative/Essay: PR: SPW 3100 or SPW 3130 or SPW 3131 or SPW 3370. Study of Latin-American narrative/essay (changing topics by semester) with emphasis in the 20th century texts, contrasting techniques, procedures, and literary theories. Course could be reoffered when topic changes.

Latin-American Theatre/Poetry: PR: SPW 3100 or SPW 3101 or SPW 3130 or SPW 3131 or SPW 3370. Study of Latin-American theatre/poetry (changing topics by semester) with emphasis in the 20th century texts, contrasting techniques, procedures, and literary theories. Course could be reoffered when topic changes.

Spanish Literary Theory: PR: SPN 3420 or equivalent. A study of textual criticism with emphasis in the theory of genre.

Nineteenth Century Spanish Literature: PR: SPW 3101. A study of the representative authors and works in Spanish Romanticism, Realism, and Naturalism.

Twentieth Century Spanish Literature: PR: SPW 3101. A study of the representative authors and works in drama and the novel.

Cervantes I: PR: SPW 3100. Don Quixote.

The Generation of 1898: PR: SPW 3101. A study of the generation’s main authors and their works.

Hispanic Literature of the United States: PR: SPN 3241 and 3420. Reading and study of outstanding works written by Hispanic writers of the United States.

Caribbean Spanish Literature: An overview of the literature of the Spanish-speaking Caribbean countries from colonial times to the present.

Teaching Social Science in the Elementary School: PR: Admission to Phase II or C.I. Selected themes, problems, and concepts; organizing for instruction; techniques; evaluation procedures.

Social Science Instructional Analysis: PR: EDG 4321 or C.I. Study of instructional programs in social sciences; objectives; materials; techniques; organization of instruction; evaluation procedures; current research for the middle grades and high school.

Methods in Elementary School Social Science: Study of instructional programs in social sciences; objectives; materials; techniques; current research; and their application in elementary school setting.
STA 2014  AS 3(3,0)

STA 3023  AS 3(3,0)
Statistical Methods I: PR: MAC 1104 or MGF 1203. First methods course introducing probability and statistical inference, including estimation, hypothesis testing, binomial and normal distributions, sample size.

STA 3023H  AS 3(3,0)
Honors Statistical Methods I: PR: Honors Program Student; Calculus desired by not necessary. Same as STA 3023 with honors-level content.

STA 3032  EN 3(3,0)
Probability and Statistics for Engineers: PR: MAC 3312 and computer programming. Axioms of probability; combinatorial and geometrical probability; probability distributions; measures of location and dispersion; sampling and sampling distributions; estimation and tests of hypotheses; engineering applications.

STA 3096  AS 3(3,0)
Statistical Graphics: PR: STA 3023 or STA 3032 and a knowledge of a programming language. Principles of graph construction, graphical perception, graphical methods, computer programs for graph construction.

STA 4102  AS 3(3,0)
Computer Processing of Statistical Data: PR: STA 4163 and knowledge of a programming language. Use of packages such as SAS, BMD, SPSS for data validation, description and analysis of data, regression and analysis of variance and covariance.

STA 4163  AS 3(3,0)
Statistical Methods II: PR: STA 3023 or STA 3032. Methods of analyzing data, statistical models, estimation, tests of hypotheses, regression and correlation, an introduction to analysis of variance, chi-square, and nonparametric methods.

STA 4184  AS 3(3,0)
Statistical Methods III: PR: STA 4163. A continuation of STA 4163, including further study of regression, analysis of variance and covariance and multiple comparisons.

STA 4173  AS 3(3,0)
Biostatistical Methods: CR: STA 4163. Introduction to the application of statistical principles and methods to problems in medical, biological, and health sciences.

STA 4202  AS 3(3,0)
Design of Experiments: PR: STA 4163 or C.I. Methods of constructing and analyzing designs for experimental investigations, concepts of blocking, randomization, replication, confounding in factorial experiments, incomplete block designs.

STA 4222  AS 3(3,0)

STA 4321  AS 3(3,0)
Statistical Theory I: PR: STA 3023 or STA 3032; CR: MAC 3313. Probability axioms, discrete and continuous sample spaces, conditional probability, independence, one-dimensional random variables, moment generating functions, transformations, jointly distributed random variables.

STA 4322  AS 3(3,0)

STA 4502  AS 3(3,0)
Nonparametric Statistical Methods: PR: STA 3023 or STA 3032. Distribution-free tests on location and dispersion, goodness of fit tests, tests of independence, measures of association, nonparametric analysis of variance.

STA 4664  AS 3(3,0)
Statistical Quality Control: PR: STA 3023 or STA 3032. Statistical concepts and methods applied to the control of quality of manufactured products.

STA 4852  AS 3(3,0)

STA 5156  EN 3(3,0)
Probability and Statistics for Engineers: PR: STA 3032 or equivalent. Theory and applications of discrete and continuous random variables, hypothesis tests, confidence intervals, regression analysis and correlation.

346
STA 5205  AS 3(3,0)
Experimental Design: PR: STA 4164, STA 5206, STA 5156. Construction and analysis of designs for experimental investigations. Blocking, randomization, replication; incomplete block designs. Factorial and fractional designs; design resolution.

STA 5206  AS 3(3,0)
Statistical Analysis: PR: STA 3023; not open to students who have completed STA 4164. Data analysis; statistical models; estimation; tests or hypotheses; analysis of variance, covariance, and multiple comparisons; regression and nonparametric methods.

STA 5505  AS 3(3,0)
Categorical Data Methods: PR: STA 4163 or STA 5206. Considers discrete probability distributions, contingency tables, measures of association, and advanced methods, including loglinear modeling, logistic regression, McNemar's Test, Mantel-Haenszel test.

STA 5825  AS 3(3,0)

SUR 3101C EN3(2,3)
Surveying: PR: MAC 3311 and Junior standing. Theory and field practice in surveying measurements and the reduction and adjustment of field data.

SYA 3110  AS 3(3,0)
The Development of Social Thought: PR: SYG 2000. An overview of theories concerning the nature of man as a "social being." The nature of society from the beginnings of the scientific study of man's life to World War II.

SYA 3120  AS 3(3,0)
The Development of Social Thought: PR: SYG 2000. A study of major European and American contributors to modern sociology since World War II.

SYA 3300  AS 4(3,2)
Research Methods: PR: SYG 2000 and SYA 3400 (may be taken concurrently). Emphasis on types of sociological data collections, sampling techniques, grant proposal development, critical evaluation of social research, and relationship between theory and social research.

SYA 3400  AS 4(3,1)
Research Methods and Statistics: PR: SYG 2000 and one other sociology course.

SYA 4450  AS 4(3,2)
Data Analysis: PR: SYA 3300 and SYA 3400. Advanced social research design and analytical skills. Emphasis on social data management, various modes of social data analysis, interpretation, integration, presentation, and report writing.

SYA 4650  AS 3(2,2)

SYA 5825  AS 3(3,0)
ProSeminar: Survey of conceptual issues, methodological concerns, and findings in substantive sociological areas that currently dominate scholarly inquiry, including such topics as crime, deviance, community, alcoholism, education.

SYA 5937  AS 3(3,0)
ST: Advanced Population: Examines the theories, methods and information utilized by demographers and focuses on techniques of application of those skills.

SYD 3410  AS 3(3,0)

SYD 3700  AS 3(3,0)
Race and Ethnic Minorities in the United States: Theoretical analysis of the emergence, maintenance, and disruption of patterns of racial and ethnic stratification.

SYD 3800  AS 3(3,0)
Sex Roles in Modern Society: The traditional and changing roles of women and men viewed in a sociological perspective.

SYD 4020  AS 3(3,0)
Population: Concerned with the study of human population, its distribution, composition, and change.

SYG 2000  AS 3(3,0)
General Sociology: Introduction to the sociological perspective and the scientific study of sociological concepts, theories, processes, and methods used in understanding contemporary human behavior in group interaction.

347
SYG 2000H
General Sociology: Extensive honors work in the field of Sociology. Expectations, requirements, and standards are greater than for standard General Sociology.

SYG 3010
Social Problems: Analysis of major social problems such as mental disorders, sexual deviance, racial discrimination, poverty, community disorganization, and violence.

SYO 3000

SYO 3360
Social Organization and Human Relations: Analysis of business, government, and industrial organizations. Topics include organizational theory, social systems, social structure, effects of technology, motivation, leadership, decision-making, and human relations.

SYO 3410
Sociology of Mental Illness: A sociological examination of mental illness as a social problem; legal aspects of mental illness, and the mental health professions.

SYO 3530
Social Stratification: PR: SYG 2000. Study of class, status and power, cultural variations in stratification systems; patterns of mobility and change.

SYO 3540
Sociology of Education: PR: SYG 2000. This course examines the sociological dimensions of the educational institutions, including the impact of the social structure on learning and the role of education in social change.

SYO 4250
Sociology of Education: PR: SYG 2000. This course examines the sociological dimensions of the educational institutions, including the impact of the social structure on learning and the role of education in social change.

SYO 4300
Political Sociology: Sociological analysis of political and parapolitical groups; socioeconomic variable of voting behavior; power elites; societies and systems of government.

SYO 4400
Medical Sociology: Analysis of patient beliefs and behavior, health practitioners, the social organization of hospitals and health services, contemporary problems in the delivery of health care.

SYP 3300
Collective Behavior: PR: SYG 2000. Analysis of relatively unstructured social situations, such as mobs, crowds, etc. as well as more structured forms of collective behavior such as social movements.

SYP 3400

SYP 3510
Sociology of Deviant Behavior: An examination of the nature, types, and societal reactions to deviant behavior; special emphasis on the process of stigmatization and the emergence of deviant subcultures.

SYP 3520
Criminology: Chief causes of anti-social behavior and current methods of prevention and reform. Effects of heredity and environment, prevalence of delinquency and crime, penal institutions.

SYP 3530
Juvenile Delinquency: Types of delinquency behavior found among juveniles; possible causes and ways society attempts to treat the various forms of delinquency.

SYP 3540
Sociology of Law: The relationship between law and society, including the functions of law and its organization, social and economic consequences, jury selection, and modern trends.

SYP 3550
Sociology of Alcoholism: Introduction to the nature of alcoholism and review of its impact on society.

SYP 3600
Sociology of Popular Music: This course examines the role of popular music in the process of social change and in reflecting American culture. Consideration is given to the nature of the popular music business.

SYP 3650
Sociology and Sport: Utilization of sociological concepts and theories to investigate sport as a social institution. Includes subjects of racism, sexism, drug abuse, violence, and current issues of sport.
SYP 4000

SYP 4550
Sociology of Drug Abuse: Analysis of the socio-culture elements of the drug culture.

SYP 4730
Sociology of Aging: Sociological aspects of aging in America.

TAX 3000
Personal Income Tax: A study of federal income tax designated to convey basic tax concepts and skills related to the individual taxpayer. Not open to accounting majors.

TAX 4001
Federal Income Tax I: PR: Junior standing and ACG 3101 with a grade of "C" or better or C.I. Concepts and methods of determining taxable income of individuals, and selected topics.

TAX 5015
Federal Income Tax II: PR: ACG 3111, TAX 4001 and meet graduate school admission requirements. Concepts and methods of determining taxable income for partnerships and corporations, and selected topics.

THE 1020

THE 1020H

THE 1925
Basic Technical Skills: PR: None. Not restricted to theatre majors but requires Departmental consent. Practical course in the proper and safe use of all stage equipment, hand, and power tools. Required of all theatre majors.

THE 2300
Script Analysis: PR: None for theatre majors. Non-majors required Departmental consent. Exploration of dramatic form and structure by learning to read, analyze, and understand playscripts for productions. The study of the playscript as a blueprint for production. Required of all theatre majors.

THE 2925

THE 2926
Theatre Practicum II: PR: THE 2925. Not restricted to theatre majors but requires Departmental consent. Participation on UCF Theatre productions. Required of all theatre majors.

THE 3110
Theatre History I: PR: None. Open to non-majors. Study of the development of theatre arts from pre-history through the seventeenth century. Required of all theatre majors.

THE 3111
Theatre History II: PR: THE 3110. Open to non-majors. Study of the development of theatre arts from the seventeenth century to the present. Required of all theatre majors.

THE 3305

TPA 2200

TPA 2204
Stagecraft II: PR: TPA 2200. Restricted to theatre majors or Departmental consent. Continuation of TPA 2200. Production crew as required. Required of all theatre majors.

TPA 2438

TPA 3043
Costume History/Design: PR: THE 3111. Restricted to theatre majors or Departmental consent. Lecture/laboratory study of costume and fashion from ancient to modern times. A study of the principal historical periods with an emphasis on basic period silhouette, costume parts and accessories, materials and colors. Required of all technical theatre/design majors.
TPA 3060
Scenic Design I: PR: TPA 2204 and two semesters of art. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory application of the fundamentals of design, composition, color theory, drafting, perspective drawing and rendering as they relate to scenic design. Required of all technical theatre/design majors.

TPA 3061
Scene Design II: PR: TPA 3060. Restricted to B.F.A. technical theatre/design majors or Departmental consent. Continuation of TPA 3061. An intensive, practical scenic design course dealing with various theatrical styles, genres, multiple and simultaneous settings. Includes script analysis and project design work with an emphasis on visualization of design concepts through models and scenic renderings. Required of all B.F.A. technical theatre/design majors.

TPA 3077
Scene Painting: PR: TPA 2204. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Study of the art and craft of painting for the theatre. Research into period designs and execution of examples selected from a variety of styles. Required of all B.F.A. technical theatre/design majors.

TPA 3197

TPA 3220
Stage Lighting: PR: TPA 2204. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Study of basic electricity, optics, lighting equipment and control, and stage lighting techniques and practices. Service on a lighting crew as required. Required of all technical theatre/design majors.

TPA 3221
Lighting Design: PR: TPA 3220. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Continuation of TPA 3220. Lecture/laboratory with emphasis on lighting design theory, style and individual lighting design projects. Required of all B.F.A. technical theatre/design majors.

TPA 3230
Costume Construction: PR: THE 1925. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory study of the basic techniques used in the drafting, cutting, fitting, and construction of stage costumes. Required of all technical theatre/design majors.

TPA 3249
Advanced Makeup Techniques: PR: TPP 2248. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/lab study of basic techniques needed for the creation of stage and film prosthetics and masks.

TPA 3250
CADD for Theatre: PR: TPA 3060. Restricted to B.F.A. Technical theatre/design majors or Departmental consent. Projects oriented course covering fundamental material in computer aided drafting and design and its application for Theatre. Required of all technical theatre/design majors.

TPA 3251
Advanced CADD for Theatre: PR: TPA 3250. Restricted to B.F.A. technical theatre/design majors or Departmental consent. Continuation of TPA 3250 with special emphasis placed on 3-Dimensional aspects and applications of computer aided drafting and design for Theatre. Required of all B.F.A. technical theatre/design majors or Departmental consent.

TPA 3290

TPA 3291

TPA 3601
Stage Management: PR: TPP 2100, THE 2300, TPA 2200, TPA 2204. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Examination of the importance, function, and responsibilities of the stage manager prior to, during and after performance. Introduction to the fundamentals of stage management as related to Departmental productions as well as professional union requirements. Includes prompt books, rehearsal, and performance procedures, and stage management forms and formats. Required of all technical theatre/design majors.
TPA 4049  AS 3(2,2)
Costume Design: PR: TPA 2204, 3043 and 2 semesters of art. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory application of the fundamentals of design, composition, color theory, and figure drawing as they relate to costume design. Includes script/character analysis and project design work with an emphasis on visualization of design concepts and costume renderings. Required of all B.F.A. technical theatre/design majors.

TPA 4061  AS 3(2,2)
Advanced Design: PR: TPA 3061 and 3221 and 4049. Restricted to B.F.A. technical theatre/design majors or Departmental consent. Continuation of design series with emphasis on planning, design, and execution of scenery, lighting, and/or costume designs.

TPA 4293  AS 1(0,20)

TPA 4400  AS 3(3,0)
Theatre Management: PR: THE 1020 and TPA 2204. Restricted to theatre majors or Departmental consent. Study of the development, organization, management, funding, and promotion of theatre programs. Additional emphasis placed on management theory and style.

TPP 2100  AS 3(3.0)
Introduction to Acting: PR: None. Restricted to theatre majors or Departmental consent. Basic introduction to the fundamentals of acting with emphasis upon the development of imagination, self-awareness, sense memory, improvisation, and the ability to execute basic stage tasks. Required of all theatre majors.

TPP 2170  AS 3(2,2)
Acting I - Fundamentals: PR: THE 1020, 1925, 2300, TPP 2100, 2511. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory study of the basic principles and techniques of acting, with particular emphasis on characterization and character development. Short scenes will be performed before the class. Required of all theatre performance majors.

TPP 3172  AS 3(2,2)

TPP 3190  AS 1(0,20)

TPP 3191  AS 1(0,20)

TPP 3197  AS 3(0,60)
Summer Theatre/Performance: PR: None. Not restricted to theatre majors but requires Departmental consent. Participation in UCF Summer Theatre Productions.

TPP 3310  AS 3(2,2)
Directing I: PR: THE 1925, 2300, 2925, 3111, 3305, TPP 2100, and TPA 2204. Restricted to theatre majors. Lecture/laboratory study of fundamentals principles and techniques of play direction to include script selection, directorial analysis, casting, composition/picturization, blocking and movement, tempo/rhythm, preparation of prompt scripts, rehearsal planning. Directed short scenes for class presentation and critique. Required of all theatre majors.

TPP 3510  AS 2(2,2)
Stage Movement I: PR: None. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Study of physical alignment techniques, centering, warm-ups methods, and exploration of movement dynamics as they relate to acting. Techniques will be drawn from dance, basic tumbling, tai chi chuan, improvisation and pantomime. Essentially a laboratory course. All students must receive a grade of "C" or above to continue in the stage movement sequence. Required of all theatre performance majors.
Verse:

TPP 3511 AS 2(2,2)
Stage Movement II: PR 3510. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Continuation of Stage Movement I. Must be taken sequentially with TPP 3510. All students must receive a grade of "C" or above to continue in the stage movement sequence. Required of all theatre performance majors.

TPP 3512 AS 2(2,2)
Stage Movement III: PR: 3511. Restricted to B.F.A. theatre performance majors or Departmental consent. Continuation of Stage Movement II. Attention given to period movement, movement styles and dance. All students must receive a grade of "C" or above to continue in the stage movement sequence. Required of all theatre performance majors.

TPP 3710 AS 2(2,2)
Voice Production I: PR: None. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Essentially a laboratory study of principles and practice of the effective speaking or stage voice. Extensive practice in body reinforcement, voice production, placement, resonance, articulation, vowel and consonant formation. Begin work on students' individual speech problems. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.

TPP 3711 AS 2(2,2)
Voice Production II: PR: TPP 3710. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Continuation of Voice Production I with continued emphasis on corrective coaching of individual speech problems. Must be taken sequentially with TPP 3710. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.

TPP 3712 AS 2(2,2)
Voice Production III: PR: TPP 3711. Restricted to B.F.A. theatre performance majors or Departmental consent. Continuation of Voice Production II. Emphasis placed on the unique demands of the communicative dramatic verse text. Particular attention given to diction and the use of emphasis to illuminate poetic language. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.

TPP 3730 AS 2(2,2)

TPP 4140 AS 3(2,2)

TPP 4142 AS 3(2,2)
Acting IV - Studio I: PR: TPP 3730, 4140, 4531. Restricted to B.F.A. theatre performance majors or Departmental consent. Lecture/laboratory study designed to expose the student to various acting, styles and plays from classical through postmodern. Emphasis on development of student's virtuosity. All students must receive a grade of "C" or above to continue in the sequence. Required of all B.F.A. theatre performance majors.

TPP 4192 AS 1(0,20)

TPP 4193 AS 1(0,20)

TPP 4260 AS 2(2,2)
Acting for TV/Film: PR: TPP 4142. Restricted to B.F.A. theatre performance majors or Departmental consent. Lecture/laboratory study designed to expose the student to practical techniques of television and film acting. Extensive studio work. Required of all B.F.A. theatre performance majors or Departmental consent.

TPP 4311 AS 3(2,2)
TPP 4531

TPP 4940
Theatre Performance Internship: PR: Restricted to B.F.A. theatre performance majors, the internship is subject to Departmental approval. Off-campus internship programs provide opportunity for practical work in professional theatre. Contact the Departmental office for specific requirements. Required of all B.F.A. theatre performance majors.

TSL 5140
Strategies: This course will survey cross-cultural communication and understanding, testing and evaluation, curriculum and methods of teaching ESOL to meet the needs of limited English proficient students.

TSL 5250
Critical Approaches to ESOL: Analysis, planning, design, and evaluation of curriculum and curricular models.

TSL 5345
Methods of ESOL Teaching: This course is designed to develop understanding, knowledge and skills of the current methods used in the teaching of ESOL.

TSL 5440
Problems in Evaluation in ESOL: Survey, selection, and design of instruments of evaluation for use with limited English proficient students.

TSL 5525
ESOL Cultural Diversity: This course is designed to identify major cultural groups represented by the LEP population in Florida schools and to understand their special needs.

TTE 4004

TTE 4601C
Urban Systems Design: PR: TTE 4004. Project course on design of transportation and urban systems using engineering design methodologies.

TTE 5204
Traffic Engineering: PR: TTE 4004. Study of operator and vehicle characteristics, and design for street capacity, signals, signs, and markings.

TTE 5205

TTE 5206
Traffic Flow Theory and Applications: PR: TTE 4004 and STA 3032. Fundamental theories and applications of traffic movements on highways and streets.

TTE 5700
Railroad Engineering: PR: TTE 4004 and C.I. The major technical factors in location, construction, maintenance, and operation of railroad transportation systems.

TTE 5805
Geometric Design of Transportation Systems: PR: TTE 4004. Study of geometric and construction design elements in the engineering of transportation systems.

TTE 5835
Pavement Design: PR: CEG 4101C. Pavement types, wheel loads, stresses in pavement components such as traffic configurations, environment, and economy.

VIC 3000
Visual Communication: A study of the visual system of man and the influences of the visual media on modern society.

ZOO 2010C
General Zoology: PR: High school biology or C.I. Introduction to zoology; structure, function and representative groups; current concepts in zoological sciences. Open only to students whose major requires this specific course.
ZOO 3303C  
**Vertebrate Zoology:** PR: 6 hours of zoology or C.I. Evolution and classification followed by an introduction to vertebrate ecology, natural history, and behavior.

ZOO 3713C  
**Comparative Vertebrate Anatomy:** PR: ZOO 2010C. The vertebrate animals, relationships of organs and systems, and their phylogenetic significance.

ZOO 3733C  
**Human Anatomy:** PR: BSC 2010C or equivalent. Structure of the human body.

ZOO 4203C  
**Invertebrate Zoology:** PR: 8 hours of biology or C.I. Taxonomy, anatomy and ecology of the invertebrate animals.

ZOO 4603C  
**Embryology/Development:** PR: 8 hours of biology or C.I. Concepts of developmental processes. Emphasis on embryology of vertebrates.

ZOO 4753C  
**Vertebrate Histology:** PR: BSC 201 OC and ZOO 201 OC. Microanatomical detail plus appropriate developmental and functional considerations of major cell types, primary tissues, organs, and organ systems. Survey of modern animal-tissue microtechnique.

ZOO 4880C  
**Fisheries Management:** PR: ZOO 2010C or C.I. Fisheries Management of freshwater environments to include identification, sampling methods, farming and hatchery operations, propagation and population estimates.

ZOO 5456C  
**Ichthyology:** PR: ZOO 3303C or C.I. Introduction to the biology of the fishes, their classification, evolution, and life histories.

ZOO 5463C  
**Herpetology:** PR: 6 hours of zoology or C.I. Introduction to the biology of the amphibians and reptiles, their classification, evolution, and life histories.

ZOO 5475C  
**Ornithology:** PR: 6 hours of zoology or C.I. Introduction to the biology of birds, their classification, evolution, and life histories.

ZOO 5486C  
**Mammalogy:** PR: 6 hours of zoology or C.I. Introduction to the biology of mammals, their classification, evolution, and life histories.

ZOO 5745C  
**Essentials of Neuroanatomy:** PR: Human/Comparative Anatomy, or Human/Animal Physiology or C.I. Fundamental concepts of both morphological and functional organization of the nervous system. Primary emphasis on human structure.

ZOO 5815  
**Zoogeography:** PR: 8 hours of zoology or C.I. Principles and concepts concerning regional patterns of animal distributions of the world, both past and present.
The date indicates the first year of employment at the University of Central Florida.

ABBOTT, DAVID W., Professor of Psychology
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BANKS, IVAN W., Assistant Professor, Educational Foundations

BARNES, BETH, Associate Professor of English
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BARR, CAROL J., Director of Health Information Management and Instructor of Health Sciences (Health Information Management)
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(1977), B.A., M.A., Ph.D. (University of Colorado)

BASSIOUNI, MOSTAFA, Associate Professor of Computer Science
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BATARSEH, ISSA E., Assistant Professor of Engineering
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SAHA, HARI, Associate Professor of Physics
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SALTER, JOHN H. III, Associate Professor of Accounting
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SALTER, MARILYN P., Visiting Instructor of Accounting
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SALZMANN, FRANK L., Assistant Professor of Mathematics
(1970), B.S., M.S., Ph.D. (Auburn University)

SANDERS, LTC JOHN T., Chair, Department of Military Science and Professor of Military Science
(1991), B.S., M.A. (Webster University)

SCHIFFHORST, GERALD J., Professor of English
(1970), B.S., M.A., Ph.D. (Washington University)

SCHOTT, JAMES R., Professor of Statistics
(1982), B.S., M.S., Ph.D. (University of Florida)

SCHOTT, SUSAN C., Instructor of Statistics
(1982), B.S., M.S. (University of Florida)

SCHULTE, ALFONS, Assistant Professor of Physics
(1990), Diploma in Physics, Dr. rer. nat. (Technische Universitaet)

SCIORTINO, PHILIP T., Associate Professor of Education
(1977), B.S., M.B.A., M.Ed., Ph.D. (University of Notre Dame)

SCOTT, DAVID F. JR., Chairholder, Della Phillips-Martha D. Schenck Chair in American Private Enterprise and Professor of Finance
(1982), B.S.B.A., M.B.A., Ph.D. (University of Florida)

SEAY, DONALD W., Chair/Artistic Director, Department of Theatre and Professor of Theatre
(1992), B.S., M.S., M.F.A., Ph.D. (Texas Tech University)

SEIDEL, KATHRYN L., Associate Dean College of Arts and Sciences and Professor of English
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SEPULVEDA, JOSE A., Associate Professor of Engineering
(1981), B.S.Ch.E., M.S.I.E., M.P.H., Ph.D. (University of Pittsburgh), P.E. (Florida)

SHAH, MUBARAK A., Associate Professor of Computer Science
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SHOFNER, JERRELL H., Professor of History
(1972), B.S., M.S., Ph.D. (Florida State University)

SHOSTAK, THOMAS A., Director, Center for Continuing Education

SIEBERT, BARRY W., Associate Professor of Education
(1972), B.S., M.A., Ph.D. (University of North Dakota)

SILFVAST, WILLIAM, Chairman, Department of Physics and Professor of Physics
(1990), B.S., Ph.D. (University of Utah)
SIMMONS, ROGER D., University Librarian
(1990), B.A., M.L.S. (University of Chicago)

SINDLINGER, JUDITH A., Director, College of Education Records and Advisement Center

SKOGLUND, MARGARET A., Assistant Professor of Art
(1977), B.S., M.A., Ph.D. (University of Missouri)

SLAUGHTER, DAVID B., Assistant Professor of Legal Studies
(1978), B.A., J.D. (Florida State University)

SMITH, ERNEST, Assistant Professor of English
(1990), B.A., M.A., Ph.D. (New York University)

SMITH, FRANCES B., Associate Professor of Nursing
(1979), R.N., M.S.N., Ed.D. (Florida State University)

SMITH, HARRY W., JR., Professor of Theatre
(1969), B.A., M.A., Ph.D. (Tulane University)

SMITH, RONALD F., Associate Professor of Communication
(1980), A.B., M.A., M.A. (Ball State University)

SMITH, WILLIAM F., Professor of Engineering
(1968), B.A., M.S., Sc.D. (Massachusetts Institute of Technology), P.E. (Florida, California)

SMITHER, JANAN A., Assistant Professor of Psychology
(1990), B.S., M.A., Ph.D. (Johns Hopkins University)

SNELSON, FRANKLIN F., JR., Professor of Biology
(1970), B.S., Ph.D. (Cornell University)

SNOW, MARILYN R., Head, Reference Department and Associate University Librarian
(1984), B.S., M.S., Ph.D. (University of Southern California)

SOMERVILLE, PAUL N., Professor of Statistics
(1972), B.Sc., Ph.D. (University of North Carolina)

SOMMER, MARGARET E., Associate Professor of English
(1972), B.A., M.Ed., Ed.D. (University of Georgia)

SORG, STEVEN E., Associate Professor of Education
(1978), B.S., M.S., Ph.D. (Florida State University)

SOSKIN, MARK D., Associate Professor of Economics, Daytona Campus

SOWDER, JEFFREY D., Associate University Librarian
(1987), B.A., M.A.L.S. (University of South Florida)

STANNEY, KAY, Assistant Professor of Industrial Engineering
(1992), B.S., M.S., Ph.D. (Purdue)

STAP, DONALD L., Associate Professor of English
(1985), B.A., Ph.D. (University of Utah)

STAUB, JAMES E., Assistant Professor of Engineering Technology
(1993), B.S., B.S., M.S. (West Coast University)

STEARMAN, ALLYN M., Professor of Anthropology
(1976), B.A., M.A., Ph.D. (University of Florida)

STEIGEMAN, GEORGE I.A., Chairholder, Cobb-L.J. Hooker Chair in Optical Sciences and Professor of Physics Engineering
(1990), B.S., M.S., Ph.D. (University of Toronto)

STERN, MARK, Professor of Political Science
(1972), B.S., Ph.D. (University of Rochester)

STEWARD, HELEN L., Counselor/Instructor/Advisor, College of Education Records and Advisement Center
(1990), B.A., M.A. (University of Central Florida)

STICKLEY, C. MARTIN, Professor of Engineering
(1990), B.S.E.E., M.S.E.E., Ph.D. (Northeastern University)

STILLMAN, JUNE S., University Librarian
(1968), B.A.L.S., M.A. (Florida State University)

STINARD, CHARLENE, Visiting Instructor of Political Science
(1990), B.S., M.A. (Columbia University)
STOUT, I. JACK, Professor of Biology
(1972), B.S., M.S., Ph.D. (Washington State University)

STRANGE, C. CLINTON JR., Lecturer in Engineering Technology
(1966), B.I.E., M.S.E. (University of Central Florida), E.I. (Georgia)

SUH, EDWARD K., Associate Professor of Social Work
(1985), B.A., M.A., M.S.W., Ph.D. (Brandeis University)

SULLIVAN, TIMOTHY J., Associate Professor of Education

SUNDARAM, KALPATHY B., Associate Professor of Engineering Science
(1987), B.S., B.E., M.T., Ph.D. (Indian Institute of Technology, Bombay)

SUNG, STELLA, Assistant Professor of Music

SUTTON, LINDA J., Associate University Librarian
(1988), B.A., M.L.S. (Florida State University)

SWART, WILLIAM W., Chair, Department of Industrial Engineering and Management Systems and Professor of Engineering
(1985), B.S., M.S., Ph.D. (Georgia Institute of Technology), P.E. (Florida)

SWEENEY, MICHAEL J., Chair of Health Sciences and Professor of Molecular Biology and Microbiology
(1972), B.S., Ph.D. (Temple University School of Medicine)

SWEET, HAVEN C., Professor of Biology
(1971), B.S., Ph.D. (Syracuse University)

TALBOTT, RICHARD E., Associate Dean, College of Health and Public Affairs and Professor of Communicative Disorders
(1993), B.S., M.S., Ph.D. (University of Oklahoma)

TAN, JUSTIN, Assistant Professor of Management
(1992), B.B.A., M.A. (Kansas State University)

TANZI, LAWRENCE A., Associate Professor of Communication
(1969), B.S.M.E., Ph.D. (Indiana University)

TAYLOR, FINLEY M., Assistant Professor of Foreign Languages and Literatures
(1970), A.B., M.A., Ph.D. (University of Tennessee)

TAYLOR, JAMES S., Director Environmental Systems Engineering Institute and Professor of Engineering
(1977), B.S.I.E., M.S., Ph.D. (University of Florida), P.E. (Florida)

TAYLOR, K. PHILLIP, Professor of Communication
(1970), B.A., Ph.D. (Indiana University)

TAYLOR, MICHAEL D., Professor of Mathematics
(1969), B.A., M.S., Ph.D. (Florida State University)

TAYLOR, WALTER K., Professor of Biology
(1969), B.S., M.S., Ph.D. (Arizona State University)

TEEPLE, EUGENE E., Professor of Marketing
(1968), B.S., M.B.A., D.B.A. (University of Oregon)

TELL, PHILLIP M., Associate Professor of Psychology
(1969), B.A., M.A., Ph.D. (University of Virginia)

THOMAS, MARGARET H., Interim Chair, Department of Psychology and Professor of Psychology
(1971), B.A., M.A., Ph.D. (Tulane University)

THOMPSON, RICHARD A., Professor of Education
(1969), B.S., M.S., Ed.D. (Ball State University)

THOMSON, DOUGLAS R., Assistant Professor of Military Science

THORNTON, DEBORAH P., Visiting Assistant Professor of Molecular Biology and Microbiology
(1989), B.S., M.Ed. (University of North Carolina)

TREFONAS, LOUIS M., Professor of Chemistry
(1981), B.A., M.S., Ph.D. (University of Minnesota)

TRIMBLE, JOHN L., Visiting Assistant Professor of Finance
(1990), B.S., M.A., Ph.D. (Texas A&M University)
TUBBS, Levester, Vice President for Student Affairs and Associate Professor of Education  
(1980), B.S., M.S., Ed.D. (University of Missouri-Columbia)

TUCKER, Richard D., Professor of Psychology  
(1972), A.B., M.A., Ph.D. (Emory University)

TURNAGE, Janet J., Professor of Psychology  
(1981), B.A., M.S., Ph.D. (Iowa State University)

TZANNES, Nicolaos S., Chair, Department of Electrical and Computer Engineering, Professor of Engineering  
(1986), B.E.E., M.E.E., Ph.D. (The Johns Hopkins University)

UMPHREY, Robert E., Professor of English  
(1970), B.A., M.A., Ph.D. (University of Washington)

UTT, Harold A., Jr., Assistant Professor of Communicative Disorders  
(1981), M.S., Ph.D. (Florida State University)

VAJRAVELU, Kuppalapalle, Associate Professor of Mathematics and Mechanical and Aerospace Engineering  
(1984), B.A., M.S., Ph.D. (Indian Institute of Technology)

VAN STRYLAND, Eric W., Professor of Physics  
(1987), B.S., Ph.D. (University of Arizona)

VAZQUEZ, Emil G., Assistant Professor of Engineering Technology  
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VEIT, Marcia R., Instructor of Accounting  
(1980), B.A., M.B.A. (University of Arkansas), C.P.A.

VELEZ, Diana, Assistant Dean, College of Arts and Sciences  
(1991), B.A., Ph.D. (Princeton University)

VEMULAPATI, Udaya, Assistant Professor of Computer Science  
(1990), B.S., Ph.D. (Pennsylvania State University)

VENTRE, Gerard G., Associate Professor of Engineering  
(1969), As.E., M.S., Ph.D. (University of Cincinnati), P.E. (Florida)

VICKERS, David H., Acting Chair Department of Biology and Associate Professor of Biology  
(1969), B.S., M.S., Ph.D. (Louisiana State University)

VITTES, M. Elliot, Associate Professor of Political Science  
(1983), B.A., M.A., Ph.D. (University of Massachusetts)

WAHID, Parveen F., Associate Professor of Engineering Science  
(1984), B.S., M.S., Ph.D. (Indian Institute of Science, Bangalore)

WAHLMAN, Maude, Professor of Art  
(1985), B.A., M.A., M.Phil., Ph.D. (Yale University)

WALLACE, Ronald L., Associate Professor of Anthropology  
(1975), B.A., M.A., Ph.D. (University of Florida)

WALTERS, Cheryl D., Assistant University Librarian  
(1987), B.A., M.L.S. (University of South Florida)

WALTERS, John S., Associate University Librarian  
(1990), B.S., M.A. (Pennsylvania University)

WANG, Alvin Y., Associate Chair and Associate Professor of Psychology  
(1987), B.A., Ph.D. (State University of New York at Stony Brook)

WANG, Morgan, Assistant Professor of Statistics  
(1991), B.S., M.S., Ph.D. (Iowa State University)

WANIELISTA, Martin P., Dean, College of Engineering and Professor of Engineering  
(1970), B.S.C.E., M.S., Ph.D. (Cornell University), P.E. (Florida)

WARD, Jeanette A., Head, Serials Department and University Librarian  
(1984), B.S., M.L.S. (Rutgers University)

WASHINGTON, David W., Associate Professor of Molecular Biology and Microbiology  
(1974), B.S., M.S., Ph.D. (Texas A&M University)

WAYSON, Roger L., Assistant Professor of Engineering  
(1990), B.S.E., M.S., Ph.D. (Vanderbilt) P.E. (Texas, Tennessee, Florida)

WEAVER, William C., Associate Professor in Finance  
(1990), B.S., M.B.A., Ph.D. (Georgia State University)

378
WEEKS, ARTHUR R., Assistant Professor of Engineering  
(1989), B.S.E., M.S.E., Ph.D. (University of Central Florida)
WEIDER-HATFIELD, DEBORAH, Professor of Communication  
(1990), A.B., M.A., Ph.D. (Purdue University)
WELCH, JUDITH K., Associate Professor of Accounting  
(1988), B.A., M.B.A., Ph.D. (Florida State University)
WELCH, PAUL R., Associate Professor of Accounting  
(1988), B.S., M.B.A., Ph.D. (University of Florida)
WELKE, JAMES W., Director, School of Communication and Professor of Communication  
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WELKER, PATRICIA E., Instructor of Health Sciences (Radiologic-Sciences)  
(1986), A.S., B.S., M.A. (Idaho State University)
WELLMAN, CHARLES W., Professor of Art  
WEST, GAIL M., Visiting Professor, Instructional Programs  
(1991), B.A., M.A., Ph.D. (Florida State University)
WHISLER, BRUCE A., Assistant Dean, College of Arts and Sciences and Associate Professor of Music  
(1971), B.A., Ph.D. (University of Rochester)
WHITE, DANIEL R., Associate Professor of Humanities  
(1988), B.A., M.A., Ph.D. (Florida State University)
WHITE, ROSEANN S., Professor of Molecular Biology and Microbiology  
(1969), B.S., Ph.D. (University of Texas)
WHITEHOUSE, GARY E., Provost and Vice President for Academic Affairs and Professor of Engineering  
WHITNEY, JOHN C., Director of Orchestral Activities and Professor of Music  
(1982), B.S., M.M. (New England Conservatory)
WHITTIER, HENRY O., Professor of Biology  
(1968), B.S.Ed., M.A., Ph.D. (Columbia University)
WIGMORE, MARY ANN, Visiting Instructor of Accounting  
(1992), M.S.T. (University of Central Florida)
WILDMAN-PEPE, JULIE L., Assistant in Statistical Consulting  
(1984), B.A., M.S. (Purdue University)
WILLIAMS, FJELDHEIM, KARRI J., Associate Professor, College of Education  
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WINK, DIANE M., Associate Professor of Nursing  
WODZINSKI, RUDY J., Professor of Molecular Biology and Microbiology  
(1970), B.S., M.S., Ph.D. (University of Wisconsin)
WOELK, MARTHA D., Visiting Instructor of History  
(1990), B.A., M.A. (University of Central Florida)
WOLF, J. GARY, Distinguished Service Professor of Music  
(1972), B.M.Ed., M.M., D.M.A. (Eastman School of Music)
WOOD, ALEXANDER T., Associate Professor of Education  
(1969), B.A., M.S., Ph.D. (Florida State University)
WOOTEN, WILLIAM, Associate Professor of Psychology  
(1985), B.A., M.S., Ph.D. (Memphis State University)
WORBS, HELMUTH E., Associate Professor of Engineering Technology  
(1978), B.S.M.E., M.S.M.E. (Stanford University), P.E. (Florida, California)
WORKMAN, DAVID A., Associate Professor of Computer Science  
(1976), B.S., M.S., Ph.D. (University of Iowa)
WORRELL, LEWIS T., Associate Professor of Health Sciences (Cardiopulmonary Sciences)  
(1976), B.S., M.P.H. (University of Central Florida)
WRANCHER, ELIZABETH A., Associate Professor of Music  
(1974), B.M. (Indiana University), Prima Soprano Koblenz, Augsburg and Detmoid
WYATT, WYATT, Professor of English  
(1970), B.A., M.A. (Columbia University)
WYCOFF, EDGAR B., Associate Professor of Communication
(1972), B.S., M.B.A., Ph.D. (Florida State University)
XANDER, JAMES A., Associate Professor of Economics
(1969), B.S., Ph.D. (University of Georgia)
YARBROUGH, PATRICIA, Chair and Professor of Physical Therapy
(1992), P.T., M.P.H., Ph.D. (Georgia State University)
YON, DONNA L., Assistant Professor of Accounting
(1984), B.S., M.Acc., Ph.D. (Texas A&M University)
YONETANI, AYAKO, Assistant Professor of Music
YOU MANS, KAREN G., Instructor of Health Sciences (Health Information Management)
(1990), A.A.S., B.A., M.P.A. (Golden State University)
YOUSEF, YOUSEF A., Professor of Engineering
(1970), B.S.C.E., M.S., Ph.D. (University of Texas), P.E. (Florida, Texas)
YUAN, JIANN S., Assistant Professor of Engineering
(1989), B.S.E., M.S.E., Ph.D. (University of Florida)
ZAYED, AHMED I., Professor of Mathematics
(1990), B.S., M.S., Ph.D. (University of Wisconsin)

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BAKER, GRAEME L.
(1968), B.S., M.S., Ph.D. (Montana State University)
Professor Emeritus of Chemistry

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(1971), B.A., M.Ed., Ph.D. (Florida State University)
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BROWN, WILLIAM R
(1972), B.S., M.S., Ph.D. (Purdue University)
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BROWNIE, ROLAND A.
(1968), B.A.M.A., C.E.F. (Queen's University, Canada)
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COLBOURN, TREVOR
President Emeritus and Professor of History

COMISH, NEWEL W.
(1968), B.S., M.S., Ph.D. (Ohio State University)
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COX, ELAINE B.
(1973), B.S., M.A.T., Ph.D. (Florida State University)
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CRAIG, ALBERT
(1970), B.S., M.A., Ed.D. (Florida State University)
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DUTTON, ARTHUR M.
(1968), B.S., Ph.D. (Iowa State University)
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ELLIS, LESLIE L.
(1968), B.S., M.S., Ph.D. (University of Oklahoma)
Professor Emeritus of Biology

ERICKSON, ERNEST E.
(1969), B.E.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)
Professor Emeritus of Engineering

ESLER, WILLIAM K.
(1968), B.A.Ed., M.A.Ed., Ph.D. (Kent State University)
Professor Emeritus of Education

FOWLER, EARL C.
Professor Emeritus of Education

GREEN, HAROLD E.
(1968), B.S., M.Ed., Ed.D. (University of Missouri)
Professor Emeritus of Education and Director, Daytona Beach Campus
GRiffith, harold l.
(1972), B.S., M.S. (Pennsylvania State University), P.E. (Florida)
Professor Emeritus of Engineering Technology

Harden, richard c.
(1967), B.M.E., B.E.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)
Professor Emeritus of Engineering and Director, South Orlando Campus

Hubler, J. W.
(1967), B.S.C.E., C.E., M.S.E., M.S.C.E. (Yale University), D.Eng. S. (Hon.) (University of Central Florida), P.E. (Florida and 18 other states)
Professor Emeritus of Engineering Technology

Jenkins, david R.
Professor Emeritus of Engineering

Lytle, ernest J.*
(1968), B.S., M.A., Ph.D. (University of Florida)
Professor Emeritus of Mathematical Sciences

Mcgee, Nancy R.*
(1970), B.S., M.A. Ed.D. (Florida Atlantic University)
Distinguished Professor Emeritus of Education

McElLennon, waldron m.
(1969), B.S., B.C.E., M.C.E., M.S. (Physics), M.S. (Env. Engr.), Ph.D. (Rensselaer Polytechnic Institute)
Professor Emeritus of Engineering

Miller, calvin C.
(1967), B.A., M.Ed., Ed.D. (Florida State University)
Dean and Professor Emeritus of Education

Miller, ernest e.
(1968), B.S., M.S., Ed.D. (University of North Dakota)
Professor Emeritus of Education

MILLICAN, CHARLES N.
(1965), B.S., M.A., Ph.D. (University of Florida)
President Emeritus and Professor of Finance

OSTLE, BERNARD
(1967), B.A., M.A., Ph.D. (Iowa State University)
Professor Emeritus of Statistics

Reidenbach, Richard C.
(1970), B.A., M.S., Ph.D. (St. Louis University)
Professor Emeritus of Management

Schrader, George F.
(1969), B.S., M.S., Ph.D. (University of Illinois), P.E. (Florida, Illinois)
Professor Emeritus of Engineering

Tesorì, Anthony P.
Professor Emeritus of Education and Director Brevard Campus

Towle, Herbert C.
(1970), B.S.E., M.S.E., Ph.D. (University of Michigan), P.E. (Florida, New York)
Professor Emeritus of Engineering

Unkovic, Charles M.
(1968), B.A., M.A., Ph.D. (University of Pittsburgh)
Professor Emeritus of Sociology

Walker, Lynn W.
(1967), B.A., M.A. (Florida State University)
Director Emeritus of Libraries

Wright, Burton
(1970), B.S., M.S., Ph.D. (Florida State University)
Professor Emeritus of Sociology

Yarosh, Marvin M.
(1975), B.S., M.S. (University of Minnesota)
Associate Director Emeritus of the Florida Solar Energy Center

*Deceased
HONORARY DEGREES AWARDED

December, 1969
Kurt H. Debus, Doctor of Engineering Science
William H. Dial, Doctor of Commercial Science

June, 1970
John W. Young, Doctor of Applied Science

March, 1973
Louis C. Murray, Doctor of Public Service

August, 1974
Fred Elmo Clayton, Doctor of Professional Engineering

August, 1978
Richard F. Livingston, Doctor of Business Administration

June, 1979
Albert F. Hegenberger, Doctor of Engineering Science
Lee R. Scherer, Doctor of Engineering Science

December, 1979
Joseph D. Duffey, Doctor of Humane Letters

August, 1980
Howard Phillips (Posthumous), Doctor of Public Service

December, 1981
Gene Burns, Master of Letters

April, 1982
Andrew Duda, Jr., Doctor of Agricultural Service
Ferdinand Duda, Doctor of Agricultural Service
John Duda, Doctor of Agricultural Service
Robert J. Whalen, Doctor of Engineering Science

July, 1982
Mary Jo Stroud Davis, Doctor of Public Service
William E. Davis, Doctor of Public Service

December, 1982
Joseph A. Boyd, Doctor of Engineering Science

July, 1983
J.W. Hubler, Doctor of Engineering Science
Charles Wadsworth, Doctor of Public Service

December, 1984
Allan E. Gotlieb, Doctor of Laws

June, 1985
George J. Becker, Jr., Doctor of Public Service
Jerry Collins, Doctor of Public Service
D. Robert Graham, Doctor of Public Service
Walter O. Lowrie, Doctor of Engineering Science
William C. Schwartz, Doctor of Engineering Science

March, 1986
Isaac Bashevis Singer, Doctor of Letters

October, 1988
Elie Wiesel, Doctor of Letters

December, 1988
Sven Caspersen, Doctor of Engineering Science
John D. Holloway, Doctor of Public Service
Wolfgang-Detlef Petri, Doctor of Commercial Science

May, 1989
David Albertson, Doctor of Humane Letters
Frank M. Hubbard, Doctor of Public Service
William S. Jenkins, Doctor of Humane Letters
Charles N. Millican, Doctor of Laws
James C. Robinson, Doctor of Public Service

May, 1990
Helen Harris Perlman, Doctor of Humane Letters
Thaddeus Seymour, Doctor of Letters

May, 1991
Roald Hoffman, Doctor of Science

May, 1992
Robert A. Bryan, Doctor of Humane Letters

May, 1993
Buell G. Duncan, Jr., Doctor of Commercial Science

COURTESY APPOINTMENTS

ACKERMAN, LINDA, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
B.S. (University of Florida)

ALBERT, JONATHON C., Clinical Faculty Cardiopulmonary Sciences, Health Sciences
RRT, B.S. (University of Central Florida)

ALEXANDER, GREGOR, Clinical Faculty Cardiopulmonary Sciences, Health Sciences
M.D. (Javeriana University)

ALI, ARSHAD, Assistant Professor of Biology
(University of Salford, England)

ALLEN, BERNICE, Clinical Faculty, Health Information Management
R.N., R.R.A.

ALMEIDA, ARTIE, Faculty Associate, Instructional Programs
M.A. (University of Central Florida)

ANDERSON, JOHN J., Clinical Faculty of Health Sciences
(1993), B.S., M.D. (University of Arkansas)
BARANCZAK, STANISLAW, Professor of Foreign Languages and Literatures
M.A., Ph.D. (Adam Mickiewicz University)

BARGAR, SHERRI, Faculty Associate, Educational Services
M.S. (Rollins College)

BAUSHER, MICHAEL G., Research Associate of Molecular Biology and Microbiology
B.S., M.S., Ph.D. (University of Florida)

BECKER, GARY, Faculty Associate, Educational Services
M.S. (Syracuse University)

BERTRAM, BURT, Associate, Educational Services
Ed.D. (University of Florida)

BEST, JAMES, Faculty Associate in Theatre

BIRD, MARY, Faculty Associate, Educational Foundations
MSM (Rollins College)

BLANEY, KATHY, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
M.S. (University of Central Florida)

BOGERT, TED, Assistant Professor of Health Sciences
M.S.H.S. (University of Central Florida)

BOLVES, ELLEN, Faculty Associate, Educational Services
M.A. (University of Central Florida)

BOULWARE, ZELLA, Faculty Associate, Educational Services
M.Ed. (University of Central Florida)

BOWERS, CLINT A., Assistant Professor of Psychology
B.S., M.A., Ph.D. (University of South Florida)

BRADLEY, BONNIE, Clinical Faculty, Health Information Management

BRIMER, MARK, PT, Clinical Faculty Physical Therapy
B.S. (Florida International University), M.B.A. (Florida Technological University)

BROWN, ASHMUN, Clinical Faculty, Health Sciences
J.D. (University of Michigan)

BURNS, SHERI, PT, Clinical Faculty Physical Therapy
B.S. (Simmons College)

BUTKINS, PETER, Faculty Associate, Educational Services
M.S. (Niagara University)

CAPRAUN, LYNN W., Clinical Faculty Cardiopulmonary Sciences
RTT, B.S., M.S. (University of Central Florida)

CARR, EDWARD O., Clinical Faculty Medical Laboratory Sciences
S.B.B., M.T., (ASCP), B.S. (Mississippi State)

CASSIDY, DAVID C., Clinical Faculty Physical Therapy
M.Ed. (Auburn University)

CLARKE, THOMAS L., Faculty Associate, Department of Mathematics
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Industrial Engineering & Management Systems ............................................. 190
Industry Training ................................................................. 179, 180, 181
Information Systems Engineering Technology .................................................. 195
Institute for Simulation and Training (IST) ......................................................... 225
Institutes and Centers for Research ............................................................... 225
Instructional Programs, Dept. of ................................................................. 169
Instructional Resources .................................................................................. 28
International Baccalaureate Program ............................................................. 74
Int'l Students
Admission of ................................................................. 46
Insurance requirement ................................................................. 46
Int'l Student Services,
Office of ...................................................................................... 35
Int'l Studies and Programs
see also: Foreign Study .............................................................................. 24
Internship Programs (Coll. of Educ.) ........................................................ 166
Journalism ....................................................................................... 111
Judaic Studies .................................................................................. 125
Junior Classification .................................................................................. 65
Language Arts Education ............................................................................. 173
Latin-American Area Studies ..................................................................... 125
Law (see Pre-Law) ................................................................................ 205
Legal Studies ...................................................................................... 126
Liberal Arts Track ...................................................................................... 126
Liberal Studies Program/Options ................................................................ 126
Libraries, University .................................................................................. 27
Limited Access Programs .......................................................................... 39
Limnology ......................................................................................... 103
Linkage Institutes ..................................................................................... 25
Magne Cum Laude .................................................................................. 70
Management ......................................................................................... 161
Management Systems Engineering ............................................................ 190
Marketing ............................................................................................... 163
Mathematics ......................................................................................... 129
Mathematics Education ............................................................................ 175
Mechanical and Aerospace Engineering ......................................................... 191
Medical Laboratory Sciences .................................................................. 215
Microbiology ......................................................................................... 213
Military Credit .......................................................................................... 44
Military Science (Army ROTC) ................................................................. 199
Minors, Academic ...................................................................................... 86
Minority Student Services .......................................................................... 83
Mission Statement, UCF ........................................................................... 17
Molecular Biology and Microbiology .......................................................... 213
Motion Picture Technology ......................................................................... 114
Multilingual-Multicultural Studies .............................................................. 222
Music ...................................................................................................... 131

Non-Degree Student ................................................................................. 47, 66
Nursing ..................................................................................................... 216

Oak Ridge Associated Universities .............................................................. 229
OASIS .................................................................................................... 97
Orientation, New Student ............................................................................ 32
Outreach Credit, Center for ....................................................................... 222
Overall Average .......................................................................................... 67
Past Due Accounts ...................................................................................... 50
Payment Procedures .................................................................................... 50
Pegasus ....................................................................................................... 1
Philosophy ................................................................................................. 136
Photography (see Art) .................................................................................. 3
Physical Education ...................................................................................... 167
Physical Therapy .......................................................................................... 217
Physics ........................................................................................................ 137
Placement .................................................................................................... 32
Political Science ............................................................................................ 139
Post-Baccalaureate Student ........................................................................ 65
Pre-Health Professions Advising ................................................................ 98
Pre-Health Professional Programs ............................................................... 88
Pre-law Program .......................................................................................... 96
Prerequisitie Course (PR) ............................................................................ 235
President's Honor Roll ................................................................................ 70
Probation, Academic .................................................................................. 67
Professional Development, Center for ......................................................... 222
 Provisional Student ..................................................................................... 86
Psychology ................................................................................................. 142
Public Administration .................................................................................... 219
Radio-Television ........................................................................................... 113
Radiologic Sciences ..................................................................................... 211
Reactivation ................................................................................................. 38
Readmission ................................................................................................. 39, 67
Recreational Services ................................................................................... 35
Records ........................................................................................................ 40
Confidentiality of ........................................................................................ 31
Deadline ....................................................................................................... 39, 40
Validity of Documents ................................................................................ 39
Refund of Fees ............................................................................................. 51
Registrar’s Office .......................................................................................... 84
Residency ...................................................................................................... 51
Respiratory Therapists, Registered .............................................................. 33, 49
Room and Board .......................................................................................... 2

ROTC (see Air Force; Army)
Russian Area Studies .................................................................................... 143
SASS (see Academic Advising Services)
Schedule Changes .......................................................................................... 68
Science Education - Biol, Chem, Physics ......................................................... 175, 176, 177
Seal - UCF .................................................................................................... 1
Second Degree .............................................................................................. 48
Semester Average .......................................................................................... 67
Semester Hours Defined ................................................................................ 66
Senior Citizens ............................................................................................ 48, 51
Senior Classification ..................................................................................... 65
Shakespeare Festival ...................................................................................... 28
Simulation & Training, Institute for ............................................................... 226
Small Business Development Center .......................................................... 227
Small Business Institute ............................................................................... 228
Social Sciences ............................................................................................. 143
Social Science Education .............................................................................. 178
Social Work ................................................................................................. 220

390
Colleges of:

Arts and Sciences
Business Administration
Education
Engineering
Health and Public Affairs