Collection Development Policy, Civil, Environmental & Construction Engineering

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Collection Development Statement

Department: Civil, Environmental, and Construction Engineering
Drafted by: Ven Basco
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Collection purpose

To support teaching and research at both the graduate and undergraduate levels as well as faculty research the library selects and maintains materials in civil and environmental engineering. The Department of Civil, Environmental & Construction Engineering is part of the College of Engineering and Computer Science. Degrees offered which the library supports include:

GRADUATE PROGRAMS

Civil Engineering, Ph.D., M.S.C.E., M.S.

The Doctor of Philosophy (Ph.D.) degree requires a student to have completed a master's degree in Civil Engineering or a closely related discipline. The Ph.D. offers an intensive, individually tailored research program suitable for the preparation of students for an academic or similar research-oriented career.

The Master of Science in Civil Engineering (M.S.C.E.) degree is designed for students who want a broad educational program, with some coursework from various areas of specialization.

The department also offers a Master of Science (M.S.) degree with three defined tracks: Structures and Foundations, Transportation Systems Engineering, Environmental Engineering Sciences, and Water Resources Engineering.

Environmental Engineering, Ph.D., M.S.Env.E., M.S.

The Doctor of Philosophy (Ph.D.) degree requires a student to have completed a master's degree in Environmental Engineering or a closely related discipline. The Ph.D. offers an intensive, individually tailored research program suitable for the preparation of students for an academic or similar research-oriented career.

The M.S.Env.E. degree was created for students who have an undergraduate degree in environmental engineering or any other closely related engineering degree.

The M.S. degree in the Environmental Engineering Sciences track is for students with science, math, or similar undergraduate degrees, and usually requires that students take a number of undergraduate engineering courses as articulation to become fully prepared for graduate work in environmental engineering.
UNDERGRADUATE PROGRAMS

Civil Engineering, B.S.
The Civil Engineering major is concerned primarily with fundamental civil engineering design and analysis in such areas as structural engineering, geotechnical engineering, water resources, transportation engineering, and environmental engineering.

Environmental Engineering, B.S.
The Environmental Engineering undergraduate program addresses the interaction of humans with their environment, and the planning, design, and control of systems for environmental quality management for water, land, and air.

Construction Engineering, B.S.
The Construction Engineering program is concerned with preparing students for the engineering management of construction projects by developing skills for the selection of construction methods and processes, construction project planning and control, and resource management.

Collection description

The collections of the College of Engineering and Computer Science support the research and teaching interests of the faculty and students in both the graduate and undergraduate programs in civil, environmental, and construction engineering. General works are collected at the introductory level. Popular treatment is acquired selectively. Juvenile materials are excluded.

Relevant indexes include:

American Society of Civil Engineers (ASCE)
Annual Reviews
Applied Science and Technology
ASTM Compass
BioOne
Biotechnology and Bioengineering Abstracts
Aquatic Science & Fisheries Abstracts (ASFA)
Civil Engineering Abstracts
Compendex (Ei Engineering Village)/ Engineering Index
Earthquake Engineering Abstracts
Ecology Abstracts
Engineering Research Database
Environmental Engineering Abstracts
Environmental Impact Statements: Digest
Environmental Sciences and Pollution Management
Florida Environments Abstracts
GEOBASE
GeoRef
IEEE Xplore
NTIS
Oceanic Abstracts
Collection guidelines

Chronology: Emphasis/restrictions

Currency is extremely important in the civil and environmental engineering fields. Emphasis is on current research although journal holding are maintained indefinitely. Historical material is collected very selectively.

Languages: Emphasis/restrictions

Materials are primarily collected in English. Monographs are exclusively in English. Major foreign journals may be acquired, but the English translation is preferred when it is available.

Geography: Emphasis/restrictions

Geographical limits do not apply. However most of the collection has United States imprints.

Subject treatment

Curriculum areas of emphasis include:

Civil & Construction Engineering
Mechanics of Materials
Construction Industry
Construction Methods, Construction Estimating and Scheduling, Construction Equipment and Productivity
Geotechnical Engineering, Geotechnical Design
Soil Dynamics
Structural Analysis
Steel and Concrete Structures
Hydraulic Engineering
Transportation Engineering
Traffic Engineering
Highway Capacity and Traffic Flow Analysis
Traffic Operations
Traffic Safety Analysis
Intelligent Transportation System

Environmental Engineering
Environmental Engineering
Air Pollution
Solid Waste
Wastewater Treatment
Hazardous Waste Management
Outdoor Noise Control
Sludge Management Operations
Physical/Chemical/Biological Treatment System
Hazardous Waste Incineration
Industrial Waste Treatment
Site Remediation & Hazardous Waste Treatment

Material formats: Emphasis/restrictions

The Library collects journals, monographic series, monographs, and reference works in print and electronic formats. Dissertations and theses from the University of Central Florida are collected; those from other schools are ordered very sparingly.

Ephemera, pamphlets, preprints, off-prints, technical reports, newsletters, manuscripts, juvenile materials, problem sets are usually excluded.

Textbooks are generally excluded unless they are standard works or considered classics.

Publication dates

Emphasis is on current materials; within the last ten years with most emphasis on the last three years.

Subjects collected and Collecting levels

Key: 0 = Libraries do not collect; 1 = Minimal level; 2 = Basic information level; 3 = Instructional support level; 4 = Research level; 5 = Comprehensive

<table>
<thead>
<tr>
<th>Subject</th>
<th>Range</th>
<th>Existing Level</th>
<th>Desired Level</th>
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<tbody>
<tr>
<td>Civil &amp; Construction Engineering</td>
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<tr>
<td>Materials of engineering and construction</td>
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<tr>
<td>Disasters and engineering</td>
<td>TA 495</td>
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<td>TA 715-787</td>
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<td>Tunneling, Tunnels</td>
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<td>Transportation engineering</td>
<td>TA 1001-1280</td>
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<td>Ocean engineering</td>
<td>TC 1501-1800</td>
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<td>Railroad engineering and operation</td>
<td>TF 1-620</td>
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<td>Bridge engineering</td>
<td>TG 1-470</td>
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<td>Building construction</td>
<td>TH 1-9745</td>
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<td>Highway engineering</td>
<td>TE 1-450</td>
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<td>Environmental protection</td>
<td>TD 169-171.8</td>
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<tr>
<td>Environmental effects of industries and plants</td>
<td>TD 194-195</td>
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<td>Environmental pollution</td>
<td>TD 172-193.5</td>
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<td>Water supply for domestic and industrial purposes</td>
<td>TD 201-500</td>
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<td>Water pollution</td>
<td>TD 419-428</td>
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<tr>
<td>Water purification. Water treatment and conditioning.</td>
<td>TD 429.5-477</td>
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<td>Water distribution systems</td>
<td>TD 481-493</td>
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<tr>
<td>Sewage collection and disposal systems. Sewerage</td>
<td>TD 511-780</td>
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<td>Municipal refuse. Solid wastes</td>
<td>TD 783-812.5</td>
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<td>Special types of environment; including soil pollution, air pollution, noise pollution</td>
<td>TD 878-894</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Industrial and factory sanitation</td>
<td>TD 895-899</td>
<td>3</td>
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<tr>
<td>Hazardous substance and their disposal</td>
<td>TD 1020-228.3</td>
<td>3</td>
<td>4</td>
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**Subjects excluded**

Biography is selectively acquired. Software is generally excluded. Standards are collected very selectively.

**Cooperative arrangements and related collections**

Other areas of the university that are impacted by the civil and environmental engineering program holdings and/or relate strongly include: Biology, Chemistry, Physics, Economics, Law, and other Engineering disciplines. The library is a member of the Patent and Trademark Depository program and makes patent information available for use by the faculty and students also.

**Collection management issues:**
Replacement

Any book lost or stolen, which appears on the Missing titles sheets distributed by the Circulation Department to the library liaison, will be considered for replacement. The title may be ordered directly from the Collection Development replacement budget fund at the discretion of the Head of Acquisitions and the Collection Development Librarian for Civil, Environmental, and Construction Engineering if the title is essential to the collection. Outdated or superseded editions will not be reordered unless there is a specific need.

Retention/Deselection

The decision to dispose of certain items takes into account such factors as past circulation, date of publication, nature of the material, and the judgment of interested faculty members as to the continued usefulness of the material to their subject areas.

Outdated, unused and no longer reliable materials are removed from the collection.

Deteriorated materials can be repaired, replaced or discarded.

Periodicals or electronic resources will be weeded when:
- The library has only fragments of a title, which do not justify the cost of filling out the run with an alternative format.
- A title has not been subscribed to for more than ten years and its value is not apparent.
- A title has not been currently subscribed to for at least five years and the related programs have been discontinued.
- A title has been replaced by electronic access (or a different form of electronic access) and its retention is no longer necessary or advisable.

Out of print acquisition

World Wide Web access to out-of-print dealers now often makes location of these items relatively convenient. As with other acquisitions, out-of-print titles will be acquired if there is a clear need to have the specific item in the collection and the price is reasonable.

Preservation

The Collection Development Librarian will consult with the Special Collections Department on all matters relating to the care, repair, and safekeeping of all circulating library materials regardless of format type. Preservation issues of importance to the Collection Development Librarian include:

- Collection maintenance of existing materials – rehousing, rebinding, repair, conservation, media transfer
- Deacidification projects - selected titles, whole collections, or partial collections
Reformatting materials to microfilm or digital images

Questions related to gifts-in-kind that might require preservation attention before materials are added to the collection.