

LIBRARY COLLECTION POLICY STATEMENTS

Mechanical Engineering

I. PROGRAM INFORMATION

The Mechanical Engineering Department of the College of Engineering provides undergraduate instruction in:

- Design of all types of machines
- Conversion of energy from one form to another
- Instrumentation and control of all types of physical and chemical processes
- Manufacturing and utilization of engineering materials
- Control of human and machine environments
- Computer Aided Design (CAD)
- Computer Aided Manufacturing (CAM)
- Computer Aided Testing (CAT)
- Computational Fluid Dynamics (CFD)
- Computer modeling and simulations
- Novel materials
- Robotics
- Mechatronics (integration of computers with electromechanical systems)

(Mechanical Engineering Department Website <<http://www.me.hawaii.edu/undergraduateprogram.htm>>).

The Mechanical Engineering Department offers the B.S. in Mechanical Engineering and is accredited by the national engineering accreditation body, Accreditation Board for Engineering and Technology (ABET).

In graduate studies, the M.S. with thesis and the Ph.D. are offered. The following areas of research are supported:

- Thermal and fluid sciences conversion
 - Heat and mass transfer
 - Thermodynamics
 - Combustion
 - Thermal environmental engineering
- Materials/manufacturing
 - Composite and smart materials
 - Mechanical properties,
 - Electrochemistry and corrosion
 - Solid-state ionics
 - Processing
 - Marine materials
- Mechanics, systems, and controls
 - Robotics
 - Dynamics
 - Control
 - Continuum mechanics

The Mechanical Engineering research programs are responsible for 2/3 of the research expenditures and indirect cost recovery for the College of Engineering. Areas of faculty research include:

- Robotics
- Underwater Vehicle Design and Technology
- Dynamical Systems
- Corrosion

- Intelligent and Composite Materials
- Advanced Manufacturing
- Combustion
- Multiphase Flow
- Heat and Mass Transfer
- Perturbation Methods
- Applied Mathematics
- Computational Fluid Dynamics

II. COORDINATION OF COLLECTING RESPONSIBILITIES

Interdisciplinary material related to mechanical engineering is collected. Additional material relevant to the field is available through the Government Documents Collection. Theses and dissertations by ME graduate students are added to the Hawaiian collection and dissertations are also available online as PDFs from the database, Dissertations and Theses, a ProQuest product.

III. GUIDELINES TO MATERIALS COLLECTED OR EXCLUDED

Language: English is preferred. The collection contains some material in Western European and Slavic languages. Asian language material is housed in the Science and Technology area and in the Asia Collection.

Chronological: No limitations, but the emphasis is on current research and theories to support the educational and research mission of the department and university.

Geographic: No Limitations.

Date of Publication: Current material is emphasized; gaps are filled as needed; rare and historical materials may be acquired as gifts (see section on Gifts).

Types/Format of Materials Collected: Scholarly journals are of primary importance. Where available and financially feasible, Web access is preferred for journal subscriptions. Web-accessible journal article databases, including back files, are acquired as funds permit. Monographs and monographic series on current research are generally collected in print format, but e-book availability is increasing and is the preferred format for handbooks, manuals, bibliographies, dictionaries, encyclopedias, standards, and other reference sources. Upper level texts, government publications; conference proceedings, industry standards are selectively collected. Audiovisual materials and microforms are purchased only when requested by faculty and funds permit. Excluded are manuscripts, reprints of articles within serials, newsletters and private and company files.

Treatment: Primary sources; reports on scientific experimental results; applications, practices and methods; equipment used in; biographical; historical; reference and bibliographical; statistical and mathematical.

Gifts: The Science and Technology Department accepts gifts to augment the science and technology collections held by the UH Manoa Library. Books that document scholarly research and textbooks no older than five years that are appropriate to university level courses are accepted. We accept other formats as well with the provision that they must be relevant to the research or instruction mission of UH Manoa. In general, we do not accept popular magazines, short journal runs, materials that duplicate items already in our collections, or materials in poor condition. Gifts of Archival materials that relate to the history of the university should be discussed with the University Archives staff. Gifts of journal titles or books in a Web format (the preferred format for journals) are accepted; discussing such a gift with the subject selector (<http://www.hawaii.edu/sciref/reference.html>) is necessary before such a gift can be accepted and integrated into the collection. The subject librarian should be contacted before a gift-in-kind of more than a few items is made to the UH Manoa Library.

When donated items are accepted by the UH Manoa Library they become the possession of the Library. The Library cannot provide monetary appraisals of gifts. The Library reserves the right to make decisions about the disposition of accepted gifts.

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