COLLECTION DEVELOPMENT POLICY STATEMENT
ELECTRICAL AND COMPUTER ENGINEERING

Date: June 2005
Collection Development Librarian: Cynthia Holt

I. PURPOSE/PROGRAM SUPPORT

The collection in electrical and computer engineering supports the curricular and research activities of the Electrical and Computer Engineering Department in the School of Engineering and Applied Sciences. Material is acquired to support teaching at the undergraduate level, teaching and research for graduate study, and faculty research interests.

The department supports study leading to the B.S. Computer Engineering, B.S. Electrical Engineering, and B.S. Biomedical Engineering. The B.S. in Biomedical Engineering has the following areas of study: bioinformatics, biomechanics, instrumentation, pre-medicine, and tele-medicine.

The department also supports study leading to the graduate degrees of M.S. in Computer Engineering, M.S. in Electrical Engineering, M.S. in Telecommunications and Computers, Ph.D. in Computer Engineering, and Ph.D. in Electrical Engineering.

Graduate students specialize in one the following areas:

**Computer Engineering**
- Computer architecture and networking
- Microelectronics and VLSI systems
- Multimedia processing

**Electrical Engineering**
- Biomedical engineering
- Communications and networks
- Electromagnetics
- Signal processing, systems, and control

**Telecommunications and Computers**
- Telecommunications networks
Telecommunications network security

Doctoral students must write a dissertation. Masters students do not have a thesis requirement.

The department also offers Graduate Certificate programs in Computer Architecture and Networking, Optical Communications and Networks, Wireless and Mobile Networks, Telecommunications Networks, and Telecommunications Security and Electronic Warfare.

Current areas of faculty research include: biomedical instrumentation, control of robots, electrical power generation and transmission, fiber optic communications, Micro Electro Mechanical Systems (MEMS), remote sensing systems, video and image processing, wireless networks, computer systems architecture, computer communications networking, multimedia processing, parallel and multiprocessor systems, and VLSI circuit design and analysis.

Faculty carry out multidisciplinary basic and applied research through the Institute for Applied Space Research, the Institute for Magnetics Research, the Institute for MEMS and VLSI Technologies, the Biomedical Engineering Laboratory, the Digital Media RF Laboratory, the High-Performance Computing Laboratory, and the Home of the 21st Century.

There are 29 full-time and 14 part-time faculty in the department, with 132 undergraduate majors and 241 graduate students.

II. AREA RESOURCES

A. Washington Research Library Consortium (WRLC)

The collections of the Washington Research Library Consortium (WRLC) libraries are available for use by students and faculty of GWU either on-site or through the Consortium Loan Service. George Mason and Catholic Universities offer masters and doctoral degrees in electrical engineering and George Mason offers a doctoral degree in computer engineering as well. Reference and referral tools for collections in the area's major libraries are provided in Gelman's collections.

B. Other area resources

Faculty and graduate students have access and borrowing privileges at the Chesapeake Information and Research Library Alliance (CIRLA) libraries. CIRLA libraries, such as the University of Maryland, have research level collections in electrical engineering and are accessible to GWU students and faculty.
III. GENERAL COLLECTION GUIDELINES

A. Language

The primary language of the collection is English. Translations and major works in key research areas not available in English are acquired selectively.

B. Period of Coverage

Emphasis is on current scholarship.

C. Dates of Publication

Materials are considered as they are published. There is no systematic retrospective purchasing activity. Most items in the collection have been published within the last 40 years.

D. Geographical

Although no areas are excluded, the emphasis is on research and projects in industrialized nations.

E. Treatment of Subject

Emphasis is on upper undergraduate, graduate and research level materials. Monographs supporting study and research in broad topics as well as narrow subjects are selected for the collection. Lower division textbooks are ordinarily not purchased. Books on techniques and upper division and graduate textbooks in English are purchased selectively; lower division textbooks are ordinarily not purchased. Accompanying instructors' manuals and students' solutions manuals are not acquired.

Journals are of primary importance and subscriptions constitute more than 94% of the expenditures for electrical and computer engineering materials. Other serials, such as proceedings and transactions of conferences, symposia, etc., are acquired selectively.

Standards, technical reports, and collections of previously published articles are selectively acquired, primarily in response to individual requests. Programmed instruction materials on electrical engineering subjects, laboratory manuals and workbooks for professional engineers' examinations are not acquired.

Non-GW dissertations, biographical works, and popular works are acquired selectively.

IV. DESCRIPTION OF MATERIALS AND FORMAT
Materials may be acquired in several formats: print, machine-readable files, videotapes, Internet subscriptions, microforms, CD-ROM, etc. The bulk of the collection is still print but periodicals are being increasingly purchased as online subscriptions. Software is acquired only as it accompanies print material. Materials in other formats are not normally acquired.

V. SPECIAL CONSIDERATIONS

There is a reliance on materials purchased for Computer Science, Physics, Mathematics and Statistics and to a lesser degree on general engineering materials purchased for Engineering Management. Refer to those policy statements for details. NTIS reports are ordered on-demand for individual users rather than being collected through any standing order plans. NTIS reports not kept by users may be added to the collections.

VI. DUPLICATION

In general, duplicate copies of a title are not purchased, the operating principle being to purchase more titles rather than extra copies of individual titles. However, if demand warrants, e.g. reserve readings, duplicate copies are bought on a case-by-case basis. Additional copies of titles may be accepted as gifts.

VII. SELECTION METHODS

A. Selection of new materials generally occurs through 5 sources:

1. The approval plan through Blackwell’s Book Services is monitored on a regular basis to ensure the profile meets our needs. Any changes in the curriculum, as indicated through library impact statements, are examined against possible changes in the approval profile.

2. Firm orders are initiated by the collection development librarian. Journals in the field are scanned for relevant reviews. Firm order requests from faculty and students are reviewed and approved by the collection development librarian.

3. Standing orders, memberships and serial requests are initiated by the collection development librarian.

4. Gifts are accepted under the same guidelines as other acquisitions. They must fit the criteria spelled out in this collection development policy.

5. The Library participates in the Federal Depository Library Program; collection development librarians review documents available through the U.S.G.P.O. for access or inclusion in the collection.

B. Deselection
The deselection process can be initiated by Gelman staff, by faculty, or by the collection development librarian. Final decisions on deselection are made by the collection development librarian. Items are checked for general condition, availability of newer or replacement editions and the continuing value of the content. Due to the reliance on current information in the electrical and computer engineering field, older editions and texts are generally not retained in the collection.

VIII. LIBRARY OF CONGRESS CLASSIFICATION

The majority of materials for electrical and computer engineering are located within the TK (Electrical engineering) area of the Library of Congress classification. Some materials of interest may also be found at QA 76 (Computer science) and TJ 163 (Energy).