

Clemson University Libraries

College of Engineering, Computing, and Applied Sciences (CECAS)

Information Access Policy

Engineering Librarian:
Jan Comfort

Written by J. Comfort 2/2017

STEM Librarian (Graduate Programs):
Nashieli Marcano

Introduction

This Information Access Policy is a statement of goals for building the library's collection in the general subject areas of Engineering, Computing, and Applied Sciences. It should serve as a guide for library personnel in making collection development decisions, and should inform users, in general, how library materials are selected. More detailed policies for each individual discipline are being developed, and will be published as they are ready.

Purpose of the Collection

The Collection supports the teaching, research, and information needs at the undergraduate and graduate level in the College of Engineering, Computing, and Applied Sciences (CECAS).

See Appendix 1 for a complete listing of CECAS Degree Programs.

Primary Users:

- Undergraduates pursuing the BA or BS degree (Jan Comfort)
- Students pursuing the combined BS/MS degree (Jan Comfort and Nashieli Marcano)
- Graduate students pursuing the MEngr, MS, or PhD degree (Nashieli Marcano)
- Graduate students pursuing the Advanced Power Systems Engineering Certificate, the Engineering Education Certificate, or the Technology Entrepreneurship Certificate (Nashieli Marcano)
- CECAS faculty (Jan Comfort)

Secondary Users:

- Students and faculty of departments whose subjects overlap with the interests of CECAS
- Faculty and staff at Clemson University Centers and Institutes (See Appendix 2 for details)
- Clemson Computing and Information Technology staff
- Researchers and Engineers employed by South Carolina companies
- Students at other colleges and universities across the state
- Member of the community at large (as a state-supported school, we function as a public library for all South Carolina residents.)

NOTE: R.M. Cooper Library is a Patent and Trademark Resource Center (PTRC), participating in a program administered by the United States Patent and Trademark Office (USPTO). We offer patent and trademark resources and services free of charge, and we are committed to promoting these services.

General Collection Guidelines

The bulk of the collection is housed in Cooper Library, with the exception of some older books and print journal volumes and some more recent journal volumes duplicated in a stable online format (such as ScienceDirect) which are available in Offsite Storage.

Scope of the Collection - Materials will be selected in electronic formats when available

- Reference Books, including handbooks, dictionaries, and encyclopedias. Electronic versions of important reference works are included in Knovel.
- Monographs – print and electronic – will be selected to support the research and coursework of undergraduate and graduate students as well as the research and teaching needs of the faculty. Books will be chosen very selectively, primarily in response to requests from faculty and students.
- Textbooks used in Clemson classes will not be purchased in print, unless they are deemed useful for other reasons. Nor will Clemson textbooks be supplied via Interlibrary Loan. However, eBook versions of textbooks may be purchased.
- Industry standards play an important role in the research process. Therefore, we will maintain a subscription to ASTM standards, and bibliographic access to additional standards through ANSI. Standards will be purchased on an as-needed basis, through InterLibrary Loan.
- Journals /serials / periodicals will be selected for two primary purposes: to support undergraduate research and coursework, and to support graduate and faculty research. No effort will be made to collect trade publications and general interest titles, although these titles might be included in Aggregators (databases such as Academic Search Complete, Lexis / Nexis.) See Information Access Policy for individual disciplines for lists of titles of journals important to that discipline.
- Several journal packages are vital to this collection, including Elsevier (ScienceDirect), Springer, and Wiley-Blackwell.

Languages

Unless otherwise requested by a faculty member, all material will be written in English.

Date of Publication

Most materials purchased will have been published within the preceding two years. Older works will be purchased at the request of a faculty member, to replace heavily used volumes that have been lost, or for which demand has been shown through Interlibrary Loan borrowing.

Geographical Guidelines

I recognize the global nature of research, and the importance of representing a wide variety of points of view and international perspectives. However, due to serious budget constraints, materials originating/published in the United States will be the primary focus.

Format

Wherever possible, reference works, indexes, and journals will be purchased in electronic formats and made available from the Libraries' Web site for access by students and faculty, on and off campus. Print materials will also be selected, when electronic is inappropriate. Materials in CD-ROM, microfilm/microfiche will be purchased only by request, and/or when it is the only format available. Materials on DVD will be purchased when requested by a faculty member.

LibGuides

A Library Guide for each major in Engineering is linked on the Library's *Research and Course Guides* page <http://clemsun.libguides.com/> as well as the Research page <http://libraries.clemson.edu/research/>

Additional LibGuides are available for Patents and Trademarks, and for individual key topics and class sessions as appropriate

Access to Information Not Available at Clemson

Interlibrary Loan

The primary means of access to materials not owned or accessible by the library is Interlibrary Loan, a service available free to Clemson University students, faculty, and staff.

PASCAL Delivers

Books available from other research institutions in South Carolina can be supplied by Pascal Delivers, also free to Clemson University students, faculty and staff.

Selection, Evaluation, and Assessment Tools

- Faculty requests and recommendations
- Faculty requests forwarded from ILL as books currently in print and good candidates for the collection
- Approval notifications from YBP identified as titles that fit the needs of the library's collection
- Vendor databases (such as YBP GOBI, and ScienceDirect)
- Review sources, e.g. *Choice*, *Books for College Libraries*, and *Magazines for Libraries*
- Indexes, bibliographies, and series lists
- Review of the teaching and research interests of the Electrical and Computer Engineering faculty
- Interlibrary loan and circulation activity
- Publishers' catalogs
- Usage statistics for databases, e-journals and e-books

Weeding Guidelines

Books will be weeded from the collection if they are in poor condition and cannot be repaired. A replacement copy will be purchased, if available, for important titles. Duplicate copies of books that have not circulated, and material that is clearly outdated and not of historical interest will be considered for weeding.

LIBRARY OF CONGRESS CLASSIFICATION CALL NUMBERS / COLLECTING LEVELS

CLASS Q – SCIENCE

Subclass QA

undergraduate/graduate/research

QA 75-76.95 Calculating machines
QA75.5-76.95 Electronic Computers. Computer Science
QA76.75-76.765 Computer Software

Subclass QC

QC221-246 Acoustics. *very selective (Nashieli Marcano)*
QC310.15-319 Thermodynamics
QC350-467 Optics. Light. Spectroscopy
QC501-766 Electricity and magnetism
QC501-(721) Electricity
QC750-766 Magnetism
QC770-798 Nuclear and particle physics. Atomic energy. Radioactivity

Subclass QE – QH - QP

QE1-996.5 Geology *undergraduate/graduate/research*
QE1-350.62 General, Including geographical divisions
QE351-399.2 Mineralogy
QE420-499 Petrology
QE500-639.5 Dynamic and structural geology
QE521-545 Volcanoes and earthquakes
QE601-613.5 Structural geology
QE640-699 Stratigraphy
QH426-470 Genetics *very selective (Nashieli Marcano)*
QH573-671 Cytology *research*
QP1-(981) Physiology *undergraduate*

CLASS R - MEDICINE

Subclass R - RS

R855-855.5 Medical technology *undergraduate/graduate/research*
R856-857 Biomedical engineering. Electronics. Instrumentation *undergraduate/graduate/research*
R858-864 Computer applications to medicine. Medical informatics. *undergraduate/graduate/research*
RC633-647.5 Diseases of the blood and blood-forming organs *graduate/research*
RC648-665 Diseases of the endocrine glands. Clinical endocrinology *graduate/research*
RC666-701 Diseases of the circulatory (Cardiovascular) system *graduate/research*
RC705-779 Diseases of the respiratory system *graduate/research*
RC799-869 Diseases of the digestive system. Gastroenterology *graduate/research*
RC870-923 Diseases of the genitourinary system. Urology *graduate/research*
RC924-924.5 Diseases of the connective tissues *graduate/research*
RC925-935 Diseases of the musculoskeletal system *graduate/research*
RD92-97.8 Emergency surgery. Wounds and injuries *undergraduate/graduate/research*
RD120.6-129.8 Transplantation of organs, tissues, etc. *undergraduate/graduate/research*
RD130 Prosthesis. Artificial organs *undergraduate/graduate/research*

RD520-599.5	Surgery by region, system, or organ	<i>undergraduate/graduate/research</i>
RD651-678	Neoplasms. Tumors. Oncology	<i>undergraduate/graduate/research</i>
RD680-688	Diseases of the locomotor system (Surgical treatment)	<i>undergraduate/graduate/research</i>
RD701-811	Orthopedic surgery	<i>undergraduate/graduate/research</i>
RK641-667	Prosthetic dentistry. Prosthodontics	<i>graduate/research</i>
RM147-180	Administration of drugs and other therapeutic agents	<i>graduate/research</i>
RS192-199	Pharmaceutical technology	<i>graduate/research</i>
RS200-201	Pharmaceutical dosage forms	<i>graduate/research</i>

CLASS T - TECHNOLOGY

Subclass T

T1-995	Technology (General)	<i>popular</i>
T55.4-60.8	Industrial engineering. Management engineering	<i>undergraduate/graduate/research</i>
T57-57.97	Applied mathematics. Quantitative methods	
T57.6-57.97	Operations research. Systems analysis	
T58.4	Managerial control systems	
T58.5-58.64	Information technology	
T58.6-58.62	Management information systems	
T58.7-58.8	Production capacity. Manufacturing capacity	
T59-59.2	Standardization	
T59.5	Automation	
T59.7-59.77	Human engineering in industry. Man-machine systems	
T60-60.8	Work measurement. Methods engineering	
T173.2-174.5	Technological change	<i>popular/undergraduate</i>
T175-178	Industrial research. Research and development	<i>selective</i>
T201-342	Patents. Trademarks	<i>popular/undergraduate/graduate</i>
T351-385	Mechanical drawing. Engineering graphics	<i>undergraduate</i>

Subclass TA

TA1-2040	Engineering (General). Civil engineering (General)	<i>undergraduate/graduate/research</i>
TA164	Bioengineering	
TA165	Engineering instruments, Industrial instrumentation	
TA166-167	Human engineering	
TA168	Systems engineering	
TA170-171	Environmental engineering	
TA174	Engineering design	
TA177.4-185	Engineering economy	
TA190-194	Management of engineering works	
TA197-198	Engineering meteorology	
TA213-215	Engineering machinery, tools, and implements	
TA329-348	Engineering mathematics. Engineering analysis	
TA349-359	Mechanics of engineering. Applied mechanics	
TA365-367	Acoustics in engineering. Acoustical engineering	
TA401-492	Materials of engineering and construction. Mechanics of materials	
TA495	Disasters and engineering	

TA501-625	Surveying
TA630-695	Structural engineering (General)
TA703-712	Engineering geology. Rock mechanics. Soil mechanics. Underground construction
TA715-787	Earthwork. Foundations
TA800-820	Tunneling. Tunnels
TA1001-1280	Transportation engineering
TA1501-1820	Applied optics. Photonics
TA2001-2040	Plasma engineering. Applied plasma dynamics

Subclass TC - TD

TC1-978	Hydraulic engineering	<i>undergraduate/graduate/research</i>
TC1501-1800	Ocean engineering	<i>selective</i>
TD1-1066	Environmental technology. Sanitary engineering	<i>undergraduate/graduate/research</i>
TD159-168	Municipal engineering	
TD169-171.8	Environmental protection	
TD172-193.5	Environmental pollution	
TD194-195	Environmental effects of industries and plants	
TD201-500	Water supply for domestic and industrial purposes	
TD419-428	Water pollution	
TD429.5-480.7	Water purification. Water treatment and conditioning. Saline water conversion	
TD481-493	Water distribution systems	
TD511-780	Sewage collection and disposal systems. Sewerage	
TD783-812.5	Municipal refuse. Solid wastes	
TD813-870	Street cleaning. Litter and its removal	
TD878-894	Special types of environment, including soil pollution, air pollution, noise pollution	
TD895-899	Industrial and factory sanitation	
TD896-899	Industrial and factory wastes	
TD920-934	Rural and farm sanitary engineering	
TD940-949	Low temperature sanitary engineering	
TD1020-1066	Hazardous substances and their disposal	

Subclass TE – TF - TH

TE1-450	Highway engineering. Roads and pavements	<i>undergraduate/graduate/research</i>
TE175-176.5	Highway design. Interchanges and intersections	
TE177-178.8	Roadside development. Landscaping	
TE200-205	Materials for roadmaking	
TE206-209.5	Location engineering	
TE210-228.3	Construction details, including foundations, maintenance, equipment	
TE250-278.8	Pavements and paved roads	
TE279	Streets	
TE279.5-298	Pedestrian facilities	
TE280-295	Sidewalks. Footpaths. Flagging	
TE298	Curbs. Curbstones	
TF1-1620	Railroad engineering and operation	<i>selective</i>
TG1-470	Bridge engineering	<i>undergraduate/graduate/research</i>
TH1-9745	Building construction	<i>(Kathy Edwards)</i>

Subclass TJ

TJ1-1570	Mechanical engineering and machinery	<i>undergraduate/graduate/research</i>
TJ163.13-163.25	Power resources	
TJ163.26-163.5	Energy conservation	
TJ170-179	Mechanics applied to machinery. Dynamics	
TJ181-210	Mechanical movements	
TJ210.2-211.47	Mechanical devices and figures. Automata. Ingenious mechanisms. Robots (General)	
TJ212-225	Control engineering systems. Automatic machinery (General)	
TJ227-240	Machine design and drawing	
TJ241-254.7	Machine construction (General)	
TJ255-265	Heat engines	
TJ266-267.5	Turbines. Turbomachines (General)	
TJ751-805	Misc. motors and engines, incl. gas, gasoline, and diesel	
TJ807-830	Renewable energy sources	
TJ1480-1496	Agricultural machinery. Farm machinery	<i>(Megan Sheffield)</i>

Subclass TK

TK1-9900	Electrical engineering.	<i>undergraduate/graduate/research</i>
TK301-399	Electric meters	
TK452-454.4	Electric apparatus and materials. Electric circuits. Electric networks	
TK1001-1841	Production of electric energy or power. Power plants. Central stations	
TK2000-2891	Dynamolectric machinery and auxiliaries, Including generators, motors, transformers	
TK2896-2985	Production of electricity by direct energy conversion	
TK3001-3521	Distribution or transmission of electric power	
TK4001-4102	Applications of electric power	
TK4125-4399	Electric lighting	
TK4601-4661	Electric heating	
TK5101-6720	Telecommunication, including telegraphy, telephone, radio, radar, TV	
TK7800-8360	Electronics	
TK7885-7895	Computer engineering. Computer hardware	
TK8300-8360	Photoelectronic devices (General)	
TK9001-9401	Nuclear engineering. Atomic power	
TK9900-9971	Electricity for amateurs. Amateur constructors' manuals	<i>selective</i>

Subclass TL

TL1-484	Motor vehicles.	<i>(Nashieli Marcano, graduate/research)</i>
TL500-4050	Aeronautics. Aeronautical engineering	<i>selective</i>

Subclass TN - TX

TN1-997	Mining engineering. Metallurgy	<i>undergraduate/graduate</i>
TP1-1185	Chemical technology	<i>undergraduate/graduate/research</i>
TR1-1050	Photography	<i>(Kathy Edwards)</i>
TS1-2301	Manufactures	<i>popular/undergraduate</i>
TS1300-1865	Textile industries	<i>undergraduate/graduate/research</i>
TT1-999	Handicrafts. Arts and crafts	<i>(Kathy Edwards)</i>
TX1-1110	Home economics	<i>(Megan Sheffield)</i>

Key Engineering Databases

ACM Digital Library	Materials Science & Engineering Database
Agricultural & Environmental Science Database	MathSciNet
Annual Reviews	MEDLINE with Full Text
Applied Science & Technology Full Text	National Library of Energy
arXiv.org ePrint Archive	National Technical Reports Library (Public NTRL)
ASABE Standards	Perry's Chemical Engineers' Handbook
ASCE Library	PiraBase
ASME Digital Library	Polymer Library
ASTM Standards & Digital Library	PsycINFO
BioMed Central	RefWorks
BuildingGreen Suite	SAE Mobilus
Computer Source	Science Reference Center
Computing Research Repository (CoRR)	SciFinder Scholar
Conference Proceedings Citation Index	Scitation
CRCnetBASE	SciTech Premium Collection
Engineering Village	Smithsonian Physical Tables
Faulkner's Advisory on Computer and Communications Technology	SPIE Digital Library
General Science Full Text	Springer eReference Works
GeoRef	SpringerMaterials
GreenFILE	Synthesis Digital Library of Engineering & Computer Science
Guide to Computing Literature	TAPPI Standards
IEEE Xplore	TAPPI TIPS and UMs
IET eBooks	Technology Collection
IET.TV	Textile Technology Index
INSPEC	TRID
Kirk-Othmer Encyclopedia of Chemical Technology	Ullmann's Encyclopedia of Industrial Chemistry
Knovel Critical Tables	Web of Science Core Collection
Knovel Science and Technology Collection	Yaws' Handbook of Thermodynamic & Physical Properties of Chemical Compounds
Machinery's Handbook	

Appendix 1 CECAS Degree Programs

Automotive Engineering MS, PhD

Bioengineering BS, BS/MS, MS, MEngr, PhD

BS Biomaterials or Bioelectrical Concentration

BS/MS Biological Sciences/Bioengineering or BS/MS Bioengineering/Bioengineering

MEngr – Medical Device Recycling and Reprocessing Certificate (for all degree programs)

Environmental Engineering & Earth Science

Biosystems Engineering BS, MS, PhD

Environmental Engineering & Science BS, MS, PhD

Environmental Health Physics - Environmental Engineering & Science MS

Geology BA, BS

Hydrogeology MS

Chemical and Biomolecular Engineering

Chemical Engineering BS with one of 6 concentrations

Applied Engineering, Mathematics, and Science

Biomolecular Engineering and Science

Business Management

Energy Studies

Environmental Engineering

Polymeric Materials

Chemical Engineering MS, PhD

Civil Engineering BS, MS, PhD

Civil Engineering BS with one of 7 concentrations

Water Resources

Structural

Environmental

Transportation

Construction

Materials

Geotechnical

Civil Engineering MS, PhD with one of 6 concentrations

Construction Engineering and Management

Structural Engineering

Construction Materials

Transportation Systems

Geotechnical Engineering

Water Resources Engineering

School of Computing

Computer Science BA, BS, BS/MS, MS, PhD

Computer Information Systems BS

Computer Science BS, MS, PhD

Digital Production Arts MFA

Human Centered Computing PhD

Electrical and Computer Engineering

Electrical Engineering BS, BS/MS, MEngr, MS, PhD

Computer Engineering BS, BS/MS, MS, PhD

Advanced Power Systems Engineering Certificate

Engineering & Science Education, PhD, Certificate

Industrial Engineering BS, BS/MS, MS, PhD

Capital Projects Supply Chain - Industrial Engineering MEngr

Materials Science and Engineering BS, MS, PhD

Materials Science and Engineering BS

Inorganic Materials Concentration

Polymeric Materials Concentration

Materials Science and Engineering MS, PhD

Metals/Ceramics Specialization

Polymers

Polymer & Fiber Science (once a degree, now a specialization)

Mechanical Engineering BS, MS, PhD

Interdisciplinary Undergraduate Certificates (most popular/relevant for CECAS)

Six Sigma

Sales

Renewable Energy

Public Health

Leadership

Interdisciplinary Graduate Programs/Certificates

Engineering Education Certificate

Technology Entrepreneurship Certificate

Photonics Science MS, PhD

Appendix 2 CECAS Centers and Institutes

Centers

- [Advanced Engineering Fibers and Films](#)
- [Advanced Materials Center](#)
- [Animal Co-Products Research & Education](#)
- Applied Electromagnetics
- [Archbold Tropical Research and Education Center](#)
- [Automotive Research \(CU-ICAR\)](#)
- [Bioelectronics, Biosensors and Biochips \(C3B\)](#)
- [Center for Electronic and Digital Publishing \(CEDP\)](#)
- [Center for Improvement of Construction Management and Processes \(CICMP\)](#)
- [Center for Optical Materials Science and Engineering Technologies \(COMSET\)](#)
- [Center for Research and Collaborative Activities \(CRCA\)](#)
- [Clemson Light Imaging Facility](#)
- Computer Communication Systems
- Conservation Center
- [Electronic and Digital Publishing](#)
- [Eukaryotic Pathogens Innovation Center \(EPIC\)](#)
- [Flexible Packaging](#)
- [Historic Preservation, Graduate Center](#)
- Image Processing and Artificial Intelligence Research
- [Innovation in Mathematics and Science, Center of Excellence](#)
- [Multimedia Authoring and Teaching Research Facility](#)
- [National Brick Research Center](#)
- [Nuclear Environmental Engineering Sciences and Radioactive Waste Management](#)
- Packaging Design and Graphics
- [Risk Engineering and Analytics Center](#)
- Semiconductor Device Reliability Research
- [South Carolina COBRE Center of Biomaterials for Tissue Regeneration \(SCBioCraft\)](#)

Institutes

- [AP Summer Institute](#)
- [Biological Interfaces of Engineering \(IBIOE\)](#)
- [Brooks Institute for Motorsports](#)
- Clemson Institute for Intelligent Materials, Systems and Environments
- [Computational Ecology](#)
- [Global Road Safety and Security \(CU-IGRSS\)](#)
- [Human Factors Research Institute](#)
- [Inquiry in Motion](#)
- [Modeling and Simulation Applications](#)
- [Restoration Institute](#)
- [Sonoco Institute of Packaging Design and Graphics](#)
- [South Carolina's Coalition for Mathematics and Science](#)
- [South Carolina Institute for Energy Studies](#)
- [Wood Utilization + Design Institute](#)