
SOUTHERN
POLYTECHNIC
STATE UNIVERSITY

Directory for Correspondence

Mission Statement

Southern Polytechnic State University shares with the other colleges and universities of the University System of Georgia the following core characteristics or purposes:

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Further, Southern Polytechnic State University shares with the other State Universities and Senior Colleges of the University System of Georgia the following core characteristics or purposes:

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Table of Contents

Calendar

Fall 2004

Aug 18	Wed	Fall Kick-Off Day
Aug 20	Fri	New Student Orientation
Aug 23	Mon	Classes Begin
Sep 6	Mon	Labor Day Holiday
Nov 24- 27	Wed - Sun	Thanksgiving Holiday for Students
Dec 9	Th	Last Day of Classes
Dec 11-15	Sat - Wed	Final Exams
Dec 18	Sat	Commencement

Spring 2005

Jan 4	Tu	New Graduate Student Orientation
Jan 6	Thu	First Day of Classes
Jan 17	Mon	Martin Luther King, Jr. Holiday
Feb 28	Mon	Last Day to Withdraw from Classes
Mar 7 -12	Mon - Sun	Spring Break
Apr 28	Thu	Last Day of Classes for Spring
Apr 30 – May 4	Fri - Wed	Final Exams
May 7	Sat	Commencement

Summer 2005

May 16	Mon	New Student Orientation
May 17	Tu	First Day of Classes
Jul 4	Mon	Holiday
Jul 27	Wed	Last Day of Classes
Jul 28 – Aug 2	Thu - Tue	Finals
Aug 6	Sat	Commencement

General Information

The statements set forth in this catalog are for informational purposes only and should not be construed as the basis of a contract between a student and this institution.

Our program complies with The Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act. Our disclosure report can be found on the police department web page at http://police.spsu.edu.

Southern Polytechnic State University is an accredited, coeducational, residential university offering associate, bachelor, and master's degrees:

Southern Polytechnic State University is
(1866 Southern Lane, Decatur, GA 30033-4097, Telephone: 404-679-4501).

All Bachelor of Science degree programs in Engineering Technology are accredited by the Technology Accreditation Commission; ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone: 410-347-7700; email accreditation@abet.org, website: http://www.abet.org.

The National Architectural Accrediting Board, Inc. (NAAB) accredits the Bachelor of Architecture program. (www.naab.org)

The American Council for Construction Education (ACCE) accredits the Bachelor of Science program in Construction. (www.accehq.org)

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Master of Science program in Management.

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Bachelor of Science in Information Technology
Bachelor of Science in Software Engineering
Bachelor of Science in Telecommunications Engineering Technology program

Master of Business Administration program

Master of Science programs

Master of Science in Information Technology program
Master of Science in Software Engineering program
Mater of Science in Systems Engineering

Graduate

Undergraduate

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Special Accommodations

College Preparatory Curriculum

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English	4	Literature (American, English, World) integrated with Grammar and Usage and Advanced Composition Skills
Mathematics	4	Algebra I and II, Geometry and a fourth year to include courses such as Advanced Algebra and Trigonometry, Algebra III, Pre-calculus, Discrete Mathematics , Calculus, AP Calculus, Statistics, IB Mathematics, Analysis
Science	3	Must include at least one lab course from Life Science and one lab course from the Physical Sciences

Test	Minimum Score
SAT I Verbal	500
SAT I Math	500
ACT-English	21
ACT-Math	21

Limited Admissions

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Test	Minimum Score
SAT I Verbal	450
SAT I Math	450
ACT-English	18
ACT-Math	18

Test	Score
SAT I – Verbal	500
SAT I – Math	500
SAT I – Total	1105
ACT English	21
ACT Math	21
ACT Composite	24

Joint Enrollment

Early Admission

Post-Secondary Option

Admission Requirements

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Advanced Placement Program

American Government	3	POLS 1101*	3
AB Calculus Test	3	MATH 1111, 1113, and 2253 or 2240	10 or11
BC Calculus Test	3	MATH 1111, 1113, 2253 or 2240, 2254	14 or15
Biology (with proof of lab)	3	Biology 2107K and 2108K	8
Computer Science A	3	CS 1301	4
Chemistry (with proof of lab)	3	Chemistry 1211K and 1212K	8

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General Information

Semester	Deadline Date
Summer	May 1
Fall	August 1
Spring	December 1

Required Documents

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Transfer Freshman Admissions Standards

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Transfer Admissions Standards for Sophomores and Upperclassmen

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Policy for Acceptance of Transfer Credit

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NOTE: Course must generally correspond in credit hours and content to courses offered at SPSU

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Nontraditional Freshman Admission Standards

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Transient Students

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Post-Baccalaureate/Non-Degree

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Audit Students

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Students Sixty-two Years of Age or Older

when space is available

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Undergraduate Certificate Program Admission Requirements

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Admission of Students with Non-U.S. Academic Credentials

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English Proficiency

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Test	Minimum Score
Paper TOEFL or	550
Computer TOEFL	213
COMPASS	74 Reading 60 Writing 37 Algebra

Financial Aid Information

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Completion Rate Requirement

Cumulative Grade Point Average Requirement

Other Financial Information

NOTE: This table applies to courses taught on SPSU's campus only. The distance learning fee structure is shown in the next table.

Registered Hours

Important Note: Fees can vary from term to term and a table of fees for each term is posted on the Internet.

OTHER APPROVED FEES

	2004 - 2005
PO Box Rental	$9.00
Credit by Examination Fee	$50.00
Distance Learning Lab Fee	$150.00
Student Center Locker Rental- Initial	$8.00
Student Center Locker Rental -Renewal	$5.00
Graduation Fee	$25.00
Late Registration Fee	$25.00
Returned Check Fee	$25.00
International Student Insurance (per term) *Pro-Rated for Summer Term*	$189.00
Vehicle Parking (per term)	

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Student Affairs and Student Life

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New Student Assignments

Counseling Services

individual sessions for students

Counselors can help students increase their self-understanding and learn how to match their personal characteristics with the work environments that a university education makes possible for them.

Counselors can assist students to develop skills

free of charge

Career Services

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- Scientific-Atlanta
- TDK
- Shaw Industries
- Lockwood-Greene
- Hewlett Packard
- Southwire Company
- Bell South
- Lockheed Martin
- Johnson Controls
- Springs Industries
- Milliken and Company
- GA Dept of Transportation

Degree candidates should begin the job placement process two semesters prior to their graduation.

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eligible to receive recognition

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- Software
- Engineering supplies
- Greeting cards
- Reference books
- Calculators
- Health and beauty aids
- School supplies
- SPSU apparel
- Drinks and snacks

- Flag football
- Volleyball
- Basketball
- Softball

- Billiards
- Golf
- Tennis
- Racquetball

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- **COMPASS**

Disability Services

International Student Services

http://eu.spsu.edu

Office of Continuing Education

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http://oce.spsu.edu

Office of Distance Learning (ODL)

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http://eu.spsu.edu/DistanceLearning

Center for Quality Excellence (CQE)

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http://eu.spsu.edu/CertificatePrograms

Grant Development Center (GDC)

http://eu.spsu.edu/GrantDevelopmentCenter

Yamacraw Continuing Education

http://yamacraw.spsu.edu

The Usability Center (UC)

English Language Services (ELS)

http://eu.spsu.edu/EnglishLanguageServices

Center for Teaching Excellence (CTE)

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http://cte.spsu.edu

Admissions

www.spsu.edu/honors/.

Advantages

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Probation and Dismissal

General Information

http://police.spsu.edu.

Academic Regulations and Administrative Procedures

Full-time

Fall and Spring

Grade Point Average

Advanced Registration

Regular

Withdrawal – Withdrawal is defined as the official act of discontinuing participation in a course or courses during a time in which withdrawal is permitted (usually after the drop/add period or regular registration, but before the mid-point of the term). Withdrawal must be initiated by the student. Students who withdraw during the withdrawal period earn a grade of "W". See "Registration", later in this chapter for details about withdrawing.

Drop

Administrative

Term

Cumulative GPA

Any rule, regulation, or procedure can be appealed. Decisions are based on evidence that the student was treated unjustly or was not afforded the same opportunities as other students. It is not enough to simply claim "nobody told me". You must have quantitative proof that your were misadvised or misinformed by someone on SPSU's staff, or that you were not treated as other students were treated. Your version of the series of events that led to this situation must be clearly articulated and credible. Your evidence does not have to be prima facie, but it must provide enough reasonable doubt that you were afforded proper guidance to make a policy exception for your case.

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Attendance or participation in a class for which a student has not registered and paid is strictly prohibited without express written permission from the office of the registrar.

Undergraduate	Less than 6 Hours	6, 7, or 8 Hours	9, 10, or 11 Hours	12 Hours or More
Graduate	Less than 4 Hours	4 or 5 Hours	6 or 7 Hours	8 Hours or More
Summer Semester				
Undergraduate	Less than 4 Hours	4 or 5 Hours	6 or 7 Hours	8 Hours or More
Graduate	Less then 3 Hours	3 or 4 Hours	5 Hours	6 Hours or more

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Full-time Students

Note that the federal government and some other agencies have different definitions of student status. For example, without regard to the above table, all undergraduate students must be enrolled in at least 6 hours to qualify for most types of financial aid (HOPE excepted).

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Refunds associated with withdrawals are made only in the case where a student withdraws completely from all classes for a term.

Withdrawing After the Mid-Point

Grades, Transcripts, Student Records
Grades and Academic History – Your Student Records

Changing your major

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Changing your demographic information

Note that the official means of communication between the university and students is email. It is the responsibility of the student to maintain an accurate email address in the student information system and to check email daily for notices.

- Student's name
- class schedule
- dates of attendance
- participation in officially recognized activities and sports
- hometown
- prior college(s) attended
- place of birth
- current enrollment status
- major field of study
- degrees and awards received
- weight and height of members of athletic teams

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Dean's List

Dean's Merit List

Good Standing

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Academic Probation

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Continued Probation

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Academic Suspension

Transfer students admitted on “academic probation”

Other Grades

I	Incomplete	**nonacademic reasons** • •
IP	In Progress	This grade indicates that credit has not been given in courses that require a continuation of work beyond the term for which the student signed up for the course. The

In Progress

Courses Taken at Other Institutions

Additional Information for Students Transferring from Outside Georgia

Transfer Credit for Courses Earned Outside the United States

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Awarded at the Discretion of the Department Chair

Why a Regents' Test

The Board of Regents of the University System of Georgia has directed that all students who participate in a program that leads to an undergraduate degree will demonstrate proficiency in reading and writing. Students should participate in the test as soon as they finish English Composition II. If they have not passed the test before they earn 45 hours of credit, they must enroll in Regents' Remedial courses until they do pass the test.

Key Points

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Graduation

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Principles Across the Core that are Common to All Institutions

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Curriculum Framework for the B4).

this area is not to exceed eight semester hours

D. Science, Mathematics, and Technology (10-11 hours)

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E. Social Sciences (12 hours)

F. Courses Related to the Program of Study (18 hours)

Core Courses

AREA	COURSE	TITLE	HOURS

All students must complete two courses from the sciences group and one course from the mathematics group.				
	ASTR	1000K	Introduction to the Universe	4
	BIOL	2107K	Biology Principles I	4
	BIOL	2108K	Biology Principles II	4
	CHEM	1211K	Principles of Chemistry I	4
	CHEM	1212K	Principles of Chemistry II	4
	PHYS	1111K	Introductory Physics I	4
	PHYS	1112K	Introductory Physics II	4
	PHYS	2211K	Principles of Physics I	4
	PHYS	2212K	Principles of Physics II	4
	MATH	1113	Pre-calculus	4
	MATH	2240	Survey of Calculus	3
	MATH	2253	Calculus I	4
				Area Total is 11 or 12 Hours

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NOTE: The additional hours in Areas A and D carry over to Area F or general degree requirements.	
	Area Total is 18 Hours.

School of Architecture, Civil Engineering Technology, and Construction

Offering

Bachelor of Architecture
Bachelor of Science in Construction
Bachelor of Science in Civil Engineering Technology
Bachelor of Science in Surveying and Mapping
Masters of Science in Construction

SCHOOL OF ARCHITECTURE, CIVIL ENGINEERING TECHNOLOGY, AND CONSTRUCTION

Architecture

Offering

Bachelor of Architecture

Professional Program

Special Grading Standard

Student Work

Area A Essential Skills				9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1113	Pre-calculus (extra hour is applied to area F)	4
Area B Institutional Options				4 hours
	SPCH	2400	Public Speaking	2
	STS	2400	Science, Technology, and Society	2

Civil Engineering Technology

Offering

Bachelor of Science in Civil Engineering Technology
Bachelor of Science in Surveying and Mapping

Area A	Essential Skills			9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1113	Pre-calculus (extra hour is applied to area F)	4
Area B	Institutional Options			4 hours
	SPCH	2400	Public Speaking	2
	STS	2400	Science, Technology, and Society	2
Area C	Humanities/ Fine Arts			6 hours

Area C2400 [illegible]

Certificate in Land Surveying

Required Courses (22 - hours)				
	SURV	2221	Surveying I	4
	SURV	2250	Applied Hydrology for Surveyors	4
	SURV	3222	Surveying II	4
	SURV	4465	Legal Aspects of Land Surveying	4
	SURV	4475	Land Surveying Practice	2
	SURV	4470	Land Development Design	4
TOTAL				

Construction

Offering

Bachelor of Science in Construction
Masters of Science in Construction

Area A	Essential Skills			9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3

Certificate Programs in Construction

Admission Requirements:

Certificate in Project Management Construction

Certificate in Land Development

Required Courses: (14 semester hours)					
*CNST	3160	Building Techniques and Methods II	2	2	3
*CNST	3310	Land Development Planning	3	0	3
CNST	3710	Site Planning	3	2	4
CNST	4570	Land Development Process I	4	0	4

Elective Courses: (7 semester hours required)					
CNST	2000	Construction Graphics	2	2	3
CNST	3110	Building Techniques & Methods I	3	2	4
CNST	3410	Construction Estimating I	3	2	4
CNST	3430	Construction Estimating III	2	2	3
CNST	4510	Scheduling	2	2	3
CNST	4620	Land Development Process II	4	0	4
CNST	4770	Land Development Law	3	0	3

Certificate in Specialty Construction

Required Courses: (19 semester hours)					
CNST	3180	Building Techniques and Methods III	3	2	4
CNST	3280	Mechanical, Electrical and Plumbing Codes & Loads	4	0	4
CNST	3480	Estimating IV	3	2	4
CNST	4580	Specialty Project Management	3	0	3
CNST	4680	Energy Conservation	4	0	4

Elective Courses: (2 semester hours required)					
CNST	3500	Building Codes	2	0	2
CNST	4510	Scheduling	2	2	3
CNST	4710	Construction Safety	4	0	4

School of Arts and Sciences

Offering

SCHOOL OF ARTS & SCIENCES

Philosophy and Mission

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Area A Essential Skills				9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1111	Pre-calculus (Or Math 1113)	3
Area B Institutional Options				4 hours
	SPCH	2400	Public Speaking	2
	STS	2400	Science, Technology, and Society	2
Area C Humanities/ Fine Arts				6 hours

Area C Group 1 Take One Course FTake One Course F

Biology, Chemistry, and Physics

Offering

Bachelor of Science in Biology
Bachelor of Science in Physics
Bachelor of Arts in Physics

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n I	3
n II	3
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Biochemistry & Molecular Biology Track Requirements				60
	BIOL	3000K	Genetics	4
	BIOL	3200K	Biotechnology	4
	BIOL	3310K	Molecular Biology	4
	BIOC	3111K	Biochemistry I	4
	BIOC	3112K	Biochemistry II	4
	BIOC	3115K	Physical Biochemistry	4
	CHEM	2511K	Organic Chemistry I	4
	CHEM	2512K	Organic Chemistry II	4
	MATH	2260	Probability & Statistics I	3
	TCOM	2010	Technical Writing	3
	BIOL	3201	Biophysics I	3
			Free Electives	7-10
	BIOL	ELEC	Any Biology Course Above 2108K (Excluding Track Requirements)	9 - 12

Pre-Professional Track Requirements				60
	BIOL	3000K	Genetics	4
	BIOL	3400K	Cell Physiology	4
	BIOL	4400K	Comparative Vertebrate Anatomy	4
	BIOC	4460K	Comparative Vertebrate Physiology	4
	BIOC	3111K	Biochemistry I	4
	CHEM	2511K	Organic Chemistry I	4
	CHEM	2512K	Organic Chemistry II	4
	MATH	2260	Probability & Statistics I	4
	TCOM	2010	Technical Writing	3
	BIOL	ELEC	At Least 4 Biology Courses Above 2108K (Excluding Track requirements)	13-16
			Free Electives	10-13

General Biology Track Requirements				60
	BIOL	3000K	Genetics	4
	BIOL	3300	Ecology	3
	BIOC	3111K	Biochemistry I	4
	CHEM	2511K	Organic Chemistry I	4
	CHEM	2512K	Organic Chemistry II	4
	MATH	2260	Probability & Statistics I	3
	TCOM	2010	Technical Writing	3
			Free Electives	15-18
	BIOL	ELEC	At Least 5 Biology Courses Above 2108K (Excluding Track requirements), with at least one course from each of the following two groups:	17-20

Cellular Form and Function				
	BIOL	3100K	Microbiology	4
	BIOL	3400K	Cell Physiology	4
	BIOL	4410K	Immunology	4
	BIOL	4470	Plant Physiology	3

Organismal Form and Function				
	BIOL	4100K	Entomology	4
	BIOL	4200K	Zoology	4
	BIOL	4400K	Comparative Vertebrate Anatomy	4
	BIOL	4440K	Botany	4
	BIOL	4460K	Comparative Vertebrate Physiology	4

Area A Essential Skills			9 hours
ENGL	1101	Composition I	3

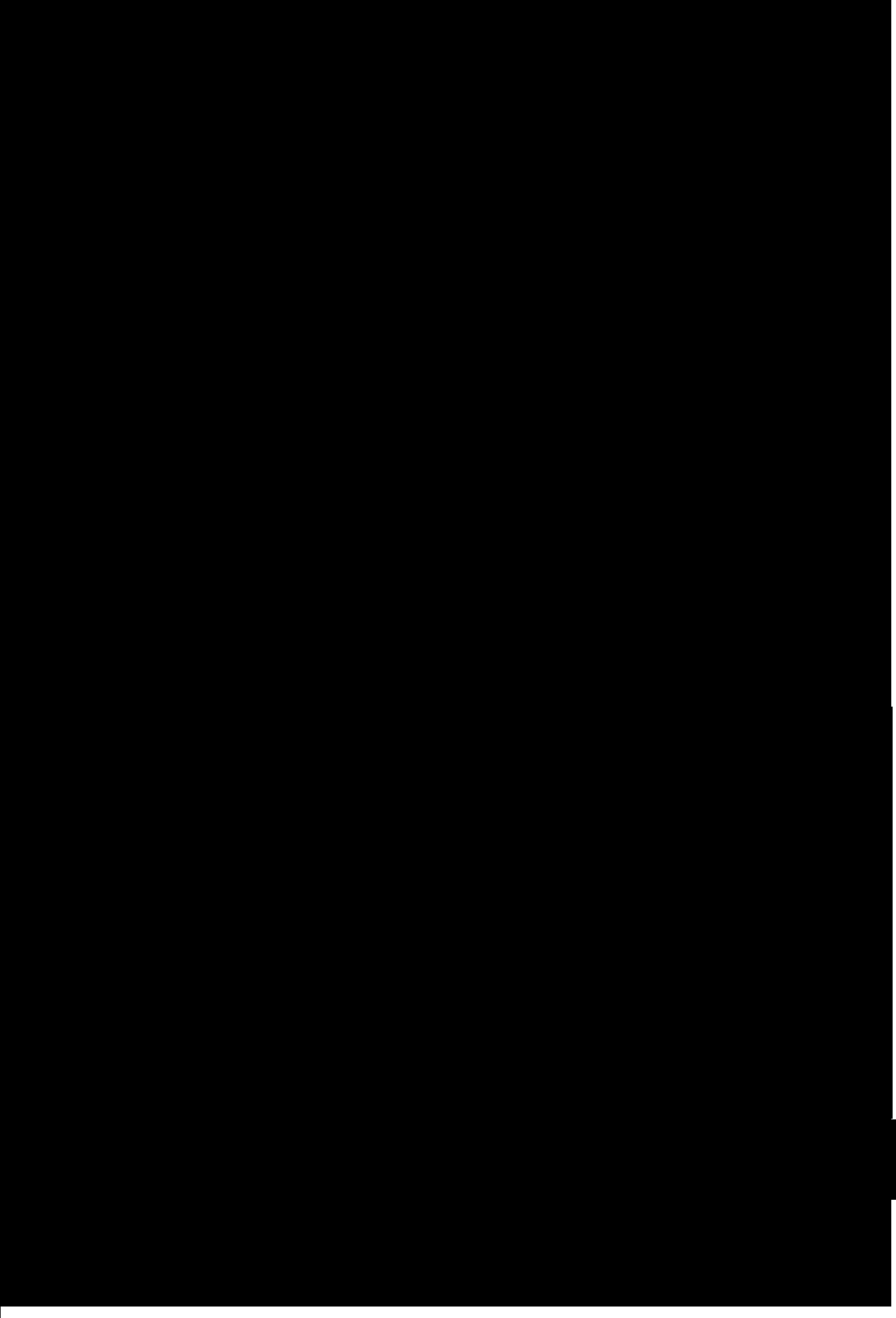
Social and International Studies

Offering

Bachelor of Science in International Studies: Global Technology

- International business
- The transportation industry
- Government
- Public policy
- Pre-law
- Graduate study
- The travel industry
- The military

• The Core Curriculum	60
• Required upper division courses in international studies	18
• An area of technical specialization	15-22
• Linkage courses (linking technology and international studies)	12
• International electives	8-15



Students must choose one of the following areas of technical concentrations:

Apparel and Textile Engineering Technology	21-22
Biology	15-16
Civil Engineering Technology	16-17
Computer Science	17
Construction	16
Electrical Engineering Technology	15
General Technology Concentration	17-21
Industrial Engineering Technology	17
Management	18
Technical and Professional Communication	15

General Technology Concentration

GENERAL TECHNOLOGY CONCENTRATION	17-21 hours
Orientation Course: Take any one of the following:	(1-2 Hours) Management Industrial Engineer Communication

Computer Science

Computer Science			18 hours
CS	1301	Computer Science I	4
CS	1302	Computer Science II	4
SWE	2642	Professional Practices and Ethics	2

SWE 2 II

SWE 2 II

Industrial Engineering Technology

Industrial			17 Hours
IET	1000	Orientation	1
IET	2227	Industrial Statistics	4
IET	2305	Production Process	4
IET	2432	Cost Estimating	3
IET	3322	Work Measures	4

Management

Management			18 Hours
MGNT	3105	Management and Organizational Behavior	3
MGNT	3135	Marketing Principles	3
MGNT	4125	Technology and Public Issues	3
MGNT	4145	International Management	3
MGNT	4185	Technology Management	3
MGNT	4195	Current Readings in Management of Technology and Operations	3

Mathematics

Offering

Bachelor of Arts in Mathematics
Bachelor of Science in Mathematics

Detailed information regarding the Core Curriculum requirements may be found in the core curriculum area of this catalog.				
Area A Essential Skills				9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1113	Pre-calculus (extra hour is applied to area F)	4
Area B Institutional Options				4 hours

Area A Essential Skills				9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1113	Pre-	

Second Major in Mathematics

Required Courses		
MATH	2306	Ordinary Differential Eqt9ml

Technical and Professional Communication

Offering

Bachelor of Science in Technical and Professional Communication
Bachelor of Arts in International Technical Communication
Master of Science in Information Design and Communication

Technical and Professional Communication

(Bachelor of Arts and Bachelor of Science Degrees Offered)

The Bachelor's programs in Technical and Professional Communication (BSTPC) and International Technical Communication (BAITC) are designed to prepare students for a variety of communication careers. Possible positions include:

- Technical communicator
- Documentation specialist
- Technical editor
- Multimedia specialist
- Proposal writer
- Graphics specialist
- Instructional designer or training specialist
- Website designer and content developer

The program also can serve as a pre-professional background for students who plan to attend graduate school.

Students pursuing the degree must complete:

- The Core Curriculum
- Required upper-division courses in technical communication (TCOM)
- Either :
  - A group of major courses (BS)
  - Or the International Studies or the Asian Studies Minor (BA)
- Arts and Sciences courses (especially those in science, technology, and society)
- Free electives

Students must make a grade of at least a C in all TCOM major courses. BSTPC or BAITC candidates who make D's or F's in any of the Required Courses or Electives cannot count those D or F courses toward graduation.

Included below are the complete requirements for the programs.

Bachelor of Arts in International Technical Communication				
Area A Essential Skills				9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1111	College Algebra	3
Area B Institutional Options				4 hours

Area F (See NOTE 1; The extra hour from Area D is counted here)				18 Hours
	TCOM	2000	Business Communication	3
	TCOM	2010	Technical Writing	3
	TCOM	2020	Foundations of TCOM	3
	TCOM	2030	Research in TCOM	3

Bachelor of Science in Technical and Professional Communication				
Area A Essential Skills				**9 hours**
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1111	College Algebra	3
Area B Institutional Options				

School of Computing and Software Engineering

Offering

Bachelor of Science in Computer Science
Bachelor of Science in Information Technology
Bachelor of Science in Software Engineering
Bachelor of Arts in Computer Science
Master of Science in Computer Science
Master of Science in Information Technology
Master of Science in Software Engineering

Computer Science

Offering

Bachelor of Science in Computer Science
Bachelor of Arts in Computer Science
Master of Science in Computer Science

Computer Science

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Area A	Essential Skills			9 hours
	ENGL	1101	Composition I	3

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Area A Essential Skills				9 hours
	ENGL	1101	Composition I	3
	ENGL	1102	Composition II	3
	MATH	1113	Pre-calculus (extra hour is applied to area F)	4

Major Courses				45 Hours
	CS	1002	Introduction to The Computing Disciplines (institutional credit only)	2
	SWE	2642	Professional Practices & Ethics	2
	CS	3153	Database Systems	3
	SWE	4324	User Centered Design	4
	TCOM	2010	Technical Writing	3
	MGNT	3105	Management and Organizational Behavior	3
	MGNT	3125	Basic Business Finance	3
	IT	3124	Hardware/Software Concepts	4
	IT	3224	Software Development Life Cycle	4
	IT	4123	Electronic Commerce	3
	IT	3883	Applications Development using Java	3
	IT	4223	Web Development	3
	IT	4323	Data Communications and Networks	3
	IT	4401	Information Technology Senior Seminar	1
			Free Electives	6

Software Engineering

Offering

Bachelor of Science in Software Engineering
Master of Science in Software Engineering

	PHYS	2211K	Principles of Physics I	4
	PHYS	2212K	Principles of Physics II	4
Computer Science Foundations				19 Hours
	CS	1002	Introduction to The Computing Disciplines (for institutional credit only)	2
	CS	2223	Digital Design	3
	CS	3223	Computer Architecture	3
	CS	3424	Data Structures	4
	CS	3243	Operating Systems	3
Plus any two of the following:				
	CS	3123	Programming Language Concepts	3
	CS	3153	Database Systems	3
	CS	4263	Computer Networks	3
Software Engineering Core				13 Hours
	SWE	2312	Introduction to Software Engineering	2
	SWE	2642	Professional Practices & Ethics	2
	SWE	2623	Software Systems Requirements	3
	SWE	3633	Software Systems Architecture	3
	SWE	3643	Software Testing & QA	3

School of Engineering Technology and Management

Offering

Bachelor of Applied Science

Bachelor of Science in Electrical Engineering Technology
Bachelor of Science in Apparel/Textile Engineering Technology
Bachelor of Science in Computer Engineering Technology
Bachelor of Science in Electrical Engineering Technology
Bachelor of Science in Industrial Engineering Technology
Bachelor of Science in Management
Bachelor of Science in Mechanical Engineering Technology
Bachelor of Science in Telecommunications Engineering Technology
Bachelor of Science in Management

Bachelor of Arts in Management

Master of Science in Engineering Technology: Electrical
Master of Science in Management of Information Systems
Master of Science in Quality Assurance

Masters of Business Administration

SCHOOL OF ENGINEERING TECHNOLOGY & MANAGEMENT

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Apparel/Textile Engineering Technology

Offering

Bachelor of Science in Apparel/Textile Engineering Technology

Electrical and Computer Engineering Technology

Offering

Bachelor of Science in Electrical Engineering Technology
Bachelor of Science in Computer Engineering Technology
Bachelor of Science in Telecommunications Engineering Technology
Master of Science in Engineering Technology: Electrical

Communications

ECET 4320	ECET 4330	ECET 4420
ECET 4431	ECET 4432	ECET 4820

Digital

ECET 3700	ECET 4630	ECET 4710
ECET 4720	ECET 4730	ECET 4820

Power

ECET 4510	ECET 4520
ECET 4530	ECET 4540

Telecommunications

ECET 3810	ECET 4820
ECET 4840	ECET 4850

Major Requirements						70 Hours
	ECET	1000	Orientation	2	0	2
	ECET	1010	Fundamentals	1	3	2
	ECET	1200	Digital I	3	3	4
	ECET	2110	Circuits II	3	3	4
	ECET	2300	Electronics I	3	3	4
	ECET	2210	Digital II	3	3	4
	ECET	2310	Electronics II	3	3	4
	ECET	2800	Introduction to Telecommunications	3	0	3
	ECET	3400	Data Communications	3	3	4
					3	4

High Frequency Systems 4

Industrial Engineering Technology

Offering

Bachelor of Science in Industrial Engineering Technology
Master of Science in Quality Assurance

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Notes:

Information System						
	MIS	3500	Database Applications	3	0	3
	IET	4555	The Integrated Enterprise	3	0	3
	MIS	4100	Business Systems Analysis and Design	3	0	3
	IET	4447	Purchasing and Supply Chain Systems	3	0	3
Concentration Total						12 hrs

Services						
	IET	3501	Service Systems Engineering	3	0	3
	IET	4356	Quality Concepts and Design	3	0	3
	IET	4447	Purchasing and Supply Chain Systems	3	0	3
	MGNT	3205	Management Information Systems	3	0	3
Concentration Total						12 hrs

Management

Offering

Bachelor of Applied Science
Bachelor of Science in Management
Bachelor of Arts in Management
Master of Science in Management of Information Systems
Masters of Business Administration

Admission to this program requires completion of an associate of applied science or associate of applied technology degree.

(Bachelor of Applied Science Degree Offered)
appropriate

Admission to the program requires the completion of an associate of applied science or associate of applied technology degree.

	Area E	Group 4	Cultures and Societies	3	3

Management Elective Option Complete 12 hours of management electives plus 5 hours of free electives.		
MGNT 4075	Healthcare Management	3
MGNT 4140	Management of Netw orks and Telecommunications	3
MGNT 4152	Production and Operations Management II	3
MGNT 4185	Technology Management	3
MGNT 4195	Current Readings in Management of Technology	3
MGNT 4903	Special Topics	3
MIS 3500	Database Applications	3
MIS 4100	Business Systems Analysis and Design	3
MKTG 3210	Professional Selling	3
MKTG 3224	Business Marketing	3
MKTG 3228	Market Research & Demand	3
MKTG 4100	Marketing Management	3

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Manufacturing Systems

Minors

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Minor in Apparel/Textile Engineering Technology

Minor in Apparel/Textile Engineering Technology			
ATET	1040	Introduction to Computers for Textile/Apparel	3
ATET	1100	Fiber and Yarn Formation	5
ATET	2301	Apparel and Textile Computer Systems I	5
ATET	2500	Fabric Formation	5
ATET	2600	Equipment/Systems Evaluation and Selection	3
ATET	3200	Production Data Systems	5
ATET	3300	Introduction to Composite Structures	2
ATET	3602	Apparel and Textile Computer Systems II	5
ATET	3700	Carpet Manufacturing	2
ATET	4320	Textile Wet Processing	3
ATET	4440	Testing and Quality Control	4
ATET	4670	Apparel/Textile Production Planning and Schedu	4

Minor in Computer Information Systems

Minor in Computer Information Systems			
CS	1301	Computer Science I	4
CS	1302	Computer Science II	4
CS	3153	Database Systems	3
IT	4683	Management Information Systems	3
		One additional upper-level IT course	3-4

Minor in Computer Science

Minor in Computer Science			
CS	1301	Computer Science I	4
CS	1302	Computer Science II	4
CS	3424	Data Structures and Algorithm Analysis	4
		Two additional upper-level CS courses	6-7

Minor in Information Technology

Regional Studies (Take at least ONE of the following:)			
SIS	2901-2903	Special Topics in Studies Abroad	1-3
SIS	4000	Regional Studies/General	3
SIS	4001	Regional Studies/Latin America	3
SIS	4002	Regional Studies/Asia: China	3
SIS	4003	Regional Studies/Asia: Japan	3
SIS	4004	Regional Studies/Middle East	3
SIS	4005	Regional Studies/Russia/Central Europe	3
SIS	4006	Regional Studies/Western Europe	3
SIS	4007	Regional Studies/Africa	3

Minor in Management

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Minor in Mathematics

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Minor in Physics

Minor in Spanish

Minor in Technical and Professional Communication

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Graduate Programs

Construction
Information Design and Communication
Computer Science
Information Technology
Software Engineering
Engineering Technology; Electrical
Management
Quality Assurance

This section contains information that pertains to all graduate programs.

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Term	Deadline for Admission
Fall	July 1
Spring	November 1
Summer	April 1

Admissions of Students with Non-U.S. Academic Credentials
Admissions of Students whose secondary education was completed outside of the United States system of education may be considered for admission with:

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Additional Requirements for International Applicants

Catalog for Graduation Evaluation

- Engineering
- Construction management
- Architecture
- Engineering technology
- Construction technology
- Management

Admission Procedure

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Admission Criteria

Regular Admission:

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Conditional Admission: Applicants not meeting the minimum requirements will be considered for conditional admission based on an evaluation of

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Construction

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Required Courses		(16 hours)	
CNST	6000	Information Methods	4
CNST	6100	Construction Law: Contracts and Claims (or 61XX from elective listing)	4
CNST	6200	Strategic Bidding and Estimating	4
CNST	6600	Construction Risk Analysis and Control	4

Options (20 hours)

Option A

Option B

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Admission Procedure

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NOTE: IDC 6001 must be taken the first semester of work in the Master's program, and IDC 6002 and IDC 6030 and must be taken as soon as possible after admission.

Elective Courses for Plan A, Plan B, and Plan C			
IDC	6003	Advanced Editing,	3
IDC	6004	Advanced Research,	3
IDC	6040	Applied Graphics,	3
IDC	6045	Foundations of Multimedia	3
IDC	6050	Applied Multimedia ,	3
IDC	6060	International Technical Communication	3
IDC	6070	User Documentation	3
IDC	6080	Professional Oral Presentations,	3
IDC	6090	Medical Communication	3
IDC	6110	Project Management	3
IDC	6120	Usability Testing	3
IDC	6130	Online Documentation ,	3
IDC	6135	Website Design	3
IDC	6140	Instructional Systems Design	3
IDC	6145	Performance Technology	3
IDC	6150	Marketing Communication	3
IDC	6160	Rhetoric,: History, Theory, and Practice	3
IDC	6165	Writing Style in the Workplace	3
IDC	6170	Video Production,	3
IDC	6901-6903	Special Topics	1-3
IDC	7501-7503	Independent Study	1-3

Graduate Certificate in Technical Communication

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Admission Procedure

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Basic

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Advanced

Graduate Certificate in Information Technology

Required Courses			12 hours
IT	6403	Windows Application Development	3
MIS	6010	Management Information Systems (AKA IT 6683)	3
SWE			

Admission Procedure

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Basic

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Advanced

Alternative

Graduate Certificate Program Admission Requirements

Transition Courses:			
CS	1301	Computer Science I	4
CS	5123	Advanced Programming and Data Structures	3
CS	5153	Database Systems	3
CS	5183	Object-Oriented Programming in C++	3
CS	5223	Computer Architecture	3
CS	5243	Operating Systems	3

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Graduate Certificate in Software Engineering

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International Students

Engineering Technology

Electrical Concentration

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Admission Procedure

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Admission Criteria

Master of Business Administration

Accreditation standards require that all students being awarded the Master of Business Administration satisfy the Common Professional Core (CPC). This requirement may be satisfied by completing graduate transition courses or undergraduate courses in these subject areas: accounting, finance, economics, business law, management and organizational behavior, marketing, operations management, and statistics. Applicants who have earned college credit for courses such as these will be considered to have satisfied the Common Professional Core for that area.

The requirement to complete the MBA degree will be 36 semester hours beyond the Common Professional Core. MBA students take eight required courses and four electives.

A grade of "C" or better is required for each course and an overall "B" average (3.0), including in the 5000-level transition courses, is required.

Transition Courses for the Common Professional Core			
MGNT	5653	Financial Decision Making	3

Management Information Systems Option

Admission Status

Quality Assurance

Engineering and Technology Concentration

Required Courses			
QA	6602	Total Quality	4
QA	6611	Advanced Statistical Applications	4
QA	6612	Advanced Experimental Design	4
QA	6615	Applied Systems Reliability	4
QA	6620	Inspection Systems Design	4
QA	6650	Quality Systems Design	4
		Electives	8
Project Options			
QA	7604	Applications in Quality	4
Non-Project Options			
QA	6620	Inspection Systems Designs	4
QA	7504	Research Methods	4

Note: A grade of "C" or better is required for each course.

Course Descriptions

Accounting

Accounting I	3-0-3	A study of the underlying theory and application of financial accounting concepts.
Accounting II Prerequisite: ACCT 2101	3-0-3	A study of the underlying theory and application of managerial accounting concepts.

Accounting Graduate

Managerial Accounting Prerequisite: MGNT 5653 or ACCT 2101 or equivalent	3-0-3	The course deals with the procedures and concepts of computing and allocating costs for reporting, pricing, planning and control, and internal decision making. It will focus mainly on the principles and techniques dealing with merchandise and manufacturing costing, job order and process costing, standard and conventional costing, and make or buy decision-making.

Anthropology

Introduction to Anthropology	3-0-3	Introduction to basic cultural anthropological concepts emphasizing the differences and similarities in contemporary human behavior in Western and non-Western societies. Course includes lectures and case studies.

Apparel/Textile Engineering Technology

Orientation	1-0-1	Provides ATET students and students majoring in other degree programs an overall introduction to the apparel and textile industry, career opportunities in Apparel/Textile Engineering Technology, familiarization with college and departmental policies, curriculum, and facilities. All phases of apparel and textile manufacturing will be covered from receipt of raw material to the manufacturing and distribution of the finished product. An introduction to Total Quality Management (TQM) is included.
Introduction to Computers for Textile/Apparel	2-3-3	Introduction to computers, including word processing, spreadsheets, and other software tools for problem solving in textile/apparel applications and information/knowledge management.
Fiber and Yarn Formation Prerequisite: CHEM 1211K	5-0-5	A study of the major chemical and physical properties of natural and man-made fibers. Emphasis is on the fiber's end uses, with particular stress on the properties the fibers give to fabric hand, drape, wrinkle resistance, wear properties, and permanent use. Fundamental principles of processing natural and man-made staple fibers into yarns: basic properties of spun and filament yarns.
International Sourcing and Employee Systems	3-2-4	The evaluation of international sourcing strategies including transportation, domestic production, 807 operations, foreign investment, foreign purchase, turn time, competitive advantage, communications, production capabilities, cultural priorities, political

Apparel and Textile Computer Systems I Prerequisites: ATET 1040, EG 1210	2-6-5	The use of computer systems to develop the product information for apparel/textile products including source materials, processing and assembly options, fabric and embroidery design, pattern development, sizing theory, garment fit and product development. Includes developing apparel patterns, grade rules, flat patterns, slopers, seam allowances, size scales, and quality specifications. The student develops complete sets of commercial apparel patterns utilizing manual and computer systems. Principles of material utilization, pattern engineering and fabric consumption are emphasized in all subject areas.
Fabric Formation Prerequisites: ATET 1100, PHYS 1111K	5-0-5	Theory and practice of warping and slashing, elements of fabric design, fabric analysis, the physics of loom motions including shuttle and shuttleless looms and the elements of fabric geometry and fabric cover are included. The principles of circular, flat, warp, and double-knits and the fundamentals of nonwoven systems are covered.
Equipment/Systems Evaluation and Selection	2-3-3	Includes studies of stitch formation, seam application, and thread characteristics as they relate to the apparel/textile product and the cost considerations in the selection of appropriate machinery. Presents a survey of industrial sewing equipment, tabling, and auxiliary equipment for apparel/textile production as well as analyzing and evaluating attachments and automated systems for their qualitative and quantitative potentials. Includes studies of the lease/purchase options and construction analysis for operator training methods as well as presentations on material handling, cutting systems, quality assurance and return on investment analysis.
Textile Processing Lab I		

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Apparel and Textile Computer Systems II Prerequisites: ATET 2301, ATET 2500	2-6-5	Principles and methods used in the preparation, planning, and cutting of fabrics and materials in apparel/textile products are presented including preparatory processes related to fabric cutting. Presents basic principles and computer methods of calculating, designing, and making pattern markers for apparel/textile products including yardage, cost e

2-0-2 This course is t

Co-requisite: ARCH 3231

Prerequisite: Admission to the professional program	2-0-2	This course introduces the logic of scientific thinking, method, and research. Methods of inquiry, problem statement, data gathering, analysis, as applied to technological as well as the social aspects of architecture are discussed as a basis of informing architectural design studies. Students may select research topics directly related to the material covered in the third year of the curriculum.
Prerequisite: ARCH 3501	1 to 4 hours	Students select independent research projects that provide them with the opportunity to explore an area of professional interest for credit. All research projects must be approved by the faculty. May be repeated twice when topics vary.
Prerequisite: Admission to the professional program	1 to 4 hours	This course provides an opportunity for a group of students to undertake in-depth study under the direction of a member of the full-time faculty or visiting faculty. Areas of study may include extension and enhancement of material offered in required architecture courses or exploration in an area of professional interest not covered by, but directly related to, material covered in fourth year architecture courses. May be repeated twice when topics vary.
Prerequisite: ARCH 4014	1-9-4	Students are required to design multipurpose architectural environments in response to a complex set of criteria. Design solution should demonstrate an investigation and application of urban design principles, theories and philosophies.
Co-requisite: ARCH 5015	2-0-2	This course examines the evolution of modern cities and the major issues and problems confronting metropolitan centers. Emphasis will be placed on culture, economics, natural environment, and their influence on urban form.
Prerequisite: 5th year standing in the professional program, Co-requisite: ARCH 3232	3-0-3	Study of professional ethics, laws governing the practice of architecture, and contractual relationships are undertaken in this course.
Prerequisite: ARCH 3501	1 to 4 hours	Students select independent research projects that provide them with the opportunity to explore an area of professional interest for credit. The faculty must approve all research projects. May be repeated twice when topics vary.
Prerequisite: ARCH 3501	2-3-3	Faculty approved, independent research projects that require students to select, research, and program a diploma project subject. Results of this course must be presented and approved by the faculty prior to admission to ARCH 5999.
Prerequisite: Admission to the professional program	1 to 4 hours	This course provides an opportunity for a group of students to undertake in-depth study under the direction of a member of the full-time faculty or visiting faculty. Areas of study may include extension and enhancement of material offered in required architecture courses or exploration in an area of professional interest not covered by, but directly related to, material covered in fifth year architecture courses. May be repeated twice when topics vary.
Prerequisite: ARCH 5593	1-12-5	Students execute and present a faculty approved terminal project in this course. Projects are developed from programmatic research, performed in ARCH 5593, to completed design development and documented in a manner acceptable for publication.

*X denotes the program area for the special topic of applied research. 0-Design, 1-History/Theory, 2-Building Technology, 3-Practice/Management/Marketing, 4-Real Estate, 5-Land Development, 6-Environmental Studies, 7-Planning/Urban Design, 8-Facilities Management, 9-Human Factors.

Arts

Prerequisite: ENGL 1101	3-0-3	Appreciation of visual arts is developed through an introduction to the aesthetics, criticism, history, and production of visual art in the Western world. Some non-Western art will be included.
Prerequisite: ENGL 1101	3-0-3	Survey of drama as a performing art, considering both literary and nonliterary elements. Some non-Western drama will be included. In addition, attendance at one or more live dramatic performances will be required.
Prerequisite: ENGL 1101	3-0-3	Survey of music in the Western world, including historical movements and basic musical notation. The course also covers some non-Western music, as well as contemporary, classical, and popular music.
	1 to 3 hours	Special topics in the arts - especially music, art, or drama. Offered by the program at its discretion.
Prerequisites: TCOM 2010; either TCOM 2020 or 2030 or concurrently	3-0-3	Study of visual thinking as an alternative to and enhancement of verbal and mathematical thinking. Helps students develop creative problem-solving skills by (1) analyzing types of conceptual blocks, and don, awimrs8I3.0905 Tc3, awimrs8I3.0905 Tc3, a

Prerequisite: BIOL 4400K	3-3-4	A comparative study of the major homeostatic and physiological mechanisms in selected vertebrate species. Topics covered include neurological, endocrine, immune, respiratory, cardiovascular, nutritional, muscular, and reproductive aspects. Laboratory exercises supplement classroom work.
Prerequisite: BIOL 3000K, BIOC 3111K	3-0-3	Introduction to plant physiology, including biochemical, genetic and developmental aspects of the plant life cycle. Topics include: photosynthesis, respiration, metabolism, water relations, plant hormones, embryogenesis and early development, flowering, stress physiology, response to pathogens and plant genetic engineering.
Prerequisite: BIOL 2108K	3-0-3	Origins of life-mechanisms and processes of organic evolution stressing evidence from population genetics, systematics, paleontology, and comparative physiology; biochemistry; the evolution of humans and human culture.
Prerequisites: MATH 2253, BIOC 3111K, BIOL 3310K	3-3-4	The course covers concepts and methods related to information processing in biological systems. Concepts covered include homology, identity and similarity; mechanisms and measures of molecular evolution; introduction to data bases; search algorithms; pairwise sequence alignment using dynamic programming; progressive methods for multiple alignment.
Prerequisite: BIOL 4500K	3-3-4	The course covers use of homology to extract information about structure and function from amino acid, DNA and RNA sequences. Concepts covered include structural homology, structural motifs and databases, homology modeling of macromolecules, energy minimization and relaxation, molecular docking, and introduction to molecular dynamics.
Prerequisite: Junior standing	3-0-3	An opportunity for students to apply principles and techniques of biology in a specific organization. The student is responsible for finding an internship, but the biology program office will assist. The student must submit a written proposal describing the internship according to department guidelines. Each internship is monitored by the student's advisor.
Prerequisite: senior standing or permission of department	1-5	Special research projects offered by the program faculty on a student demand/need basis.
Prerequisite: CHEM 2512K	3-3-4	An introduction to the structure, chemistry and metabolism of biomonomeric molecules, with emphasis on monosaccharides, amino acids and fatty acids. Laboratory exercises supplement classroom work.
Prerequisite: BIOC 3111K	3-3-4	Continuation of Biochemistry I, with emphasis on the structure, chemistry and metabolism of biomacromolecules, biopolymers/biocomplexes. Laboratory exercises supplement classroom work.
Prerequisite: BIOC 3111K	3-3-4	General principles of biomolecular thermodynamics, cryogenics, kinetics, homeostasis, electrodynamics, and ultrasonics, and their applications to biological systems. Laboratory exercises supplement classroom work.

Chemistry

Prerequisite: MATH 1111	3-3-4	First course in a two-semester sequence covering the fundamental principles and applications of chemistry designed for science majors. Topics to be covered include composition of matter, stoichiometry, periodic relations, and nomenclature. Laboratory exercises supplement the lecture material.

Prerequisite: CHEM 1211K	3-3-4	Second course in a two-semester sequence covering the fundamental principles and applications of chemistry designed for science majors. Laboratory exercises supplement the lecture material.
Prerequisite: CHEM 1211K	3-3-4	This course emphasizes the source, transport, reactions and fate of pollutants and natural chemical substances that enter or compose the aquatic, air, and soil environments. Laboratory exercises focus on water and wastewater analysis.
Prerequisite: CHEM 1211K	3-0-3	A survey of the chemistry of the compounds of carbon. Topics include a study of the synthesis, reactions, and properties of acyclic and cyclic compounds and their derivatives.
Prerequisite: CHEM 1211K	3-3-4	An introduction to the chemistry of the compounds of carbon. Topics include a study of the synthesis, reactions, reaction mechanisms, and properties of acylic and cyclic compounds and their derivatives. Laboratory exercises supplement classroom work.
Prerequisite: CHEM 2511K	3-3-4	A continuation of the study of organic molecules. Topics include a survey of heterocycles, natural products and synthetic polymers. Laboratory exercises supplement classroom work.
Prerequisite: CHEM 1212K	3-6-5	An introduction to classical and instrumental methods of quantitative analysis and their underlying principles. Laboratory exercises supplement classroom work.
Prerequisite: CHEM 3100K	2-6-4	Principles of operation and application of instrumental methods including ultraf0ro euPrerequ Prerequisite: CHEM 3135 T7pi2K jsite530.252780728t(6)3 MATH 225 Tj -42Tc (-) - 3D 0 0angent cls.5 e5 4y96.5 4.5 0 907 Tc (-) sor1

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Prerequisite: SURV 2221	3-3-4	An overview of transportation engineering as it applies to land, air, and sea systems. Special emphasis is given to the design factors required in planning and constructing a highway including the planning process, traffic analysis and capacity, intersection design and signalization. The lab focuses on the preparation of highway design plans as well as data measurement techniques unique to transportation engineering.
Prerequisite: CET 3381 or (CET 3371 and CET 3302)	4-0-4	A study of the project cost measurement and analysis techniques unique to the civil engineering profession. Cost analysis procedures and their relationship with cost estimation methodologies are examined. Emphasis is placed on techniques for economy studies of multiple alternatives, uncertainties in forecasts, increment costs, taxes, and retirement and replacement of highways, transportation systems, bridges and publics works facilities. Current economic issues are also discussed.
Prerequisite: CET 2200 or CET 2214	3-3-4	A study of the basic principles of fluid mechanics and the application of these principles to practical problems. The subject matter will consist of fluid properties, fluid pressure, buoyancy, pipe flow analysis, open channel flow, and pump selection. Pressure pipe systems, flow measurement, and open channel systems are examined.
Prerequisites: CHEM 1211K, CET 3343	3-3-4	A study of the basic unit operations of Environmental Engineering Technology with emphasis on the design of water and wastewater treatment plants. Aspects of environmental chemistry and standard methods of industrial and municipal wastewater characterization are included.
Prerequisites: Junior standing, consent of the Department Chair.	1 to 4 hours	Special topics offered by the program on a demand basis.
Prerequisite: CET 2200	3-3-4	

Prerequisite: CET 3381	4-0-4	This is a continuation of the concrete design procedures covered in CET 3381. Topics include pre-stress member design, post-tensioned member design, retaining wall design, biaxial bending in short and long concrete columns, and two-way slab design.

Prerequisite: CET

Prerequisites: CET 3301, CET 3302, CET 3321	3-3-4	A study of the methods used to determine thickness and composition of the components of both flexible and rigid highway pavements. Class work will also include evaluation of paving materials, design of pavement drainage systems recognition of pavement distress, and the design of repair measures. Standard techniques and computer software such as that of PCA, ACPA, the Asphalt Institute and AASHTO will be utilized in pavement thickness design.
Prerequisite: CET 3344	3-0-3	Global and local effects of air pollution, pollution sources, emission controls, meteorology, plume dispersion and rise, particulate, sulfur oxides, nitrogen oxides, air quality and emission standards, and control systems and devices.
Prerequisite: CET 3321	3-3-4	A study of the principles and concepts employed in the design of multi-model transportation networks. Topics include: interaction of multi-model systems, terminal design, ports and harbors, airport design, and mass transit. Design projects will look at solutions to network problems facing metropolitan Atlanta.
Prerequisites: Senior standing, consent of the Department Chair	1-9-4	This course is designed to be the culmination of the undergraduate civil engineering technology education. Under the guidance of the professor, students will form small design teams, choose a proposed or ongoing project in the metropolitan area of Atlanta and redesign the project. Working as independent teams with guidance from the lead professor the projects will be completed and the results presented for review to a panel of faculty and students.
Prerequisites: Junior standing, consent of the Department Chair.	1 to 4 hours	Special topics offered by the program on a demand basis.

Prerequisite: MATH 1113 or concurrently	3-0-3	This course covers the beginning concepts of programming logic and algorithms using the C Programming Language. Procedural programming style is used in the labs. (CS and SWE majors may not receive degree credit for this course).
Prerequisite: MATH 2345	3-0-3	A study of the digital devices and circuits used in the implementation of computer systems. Pertinent topics include Boolean algebra and logic concepts, design and minimization of combinational and sequential logic circuits, and modern digital-design software tools such as VHDL.
Prerequisite: CS 1302 and CS 3223	3-0-3	A comparative study of programming languages covering their history, development, and different design criteria; their formal definitions of syntax and semantics; their concepts and constructs; and the similarities and differences between languages. This course includes examination of object-oriented, functional, and concurrent languages, exception handling, modularization, scoping, etc. The use of programming tools that enable the student to practice the course objectives are incorporated.
Prerequisite: CS 1302	3-0-3	The topics in this course span from a review of the traditional file processing systems to database management systems. Topics include files systems and file processing logic, planning, and major phases of database development: analysis, design and implementation. Labs use an SQL based database product such as Oracle.
Prerequisite: CS 2223 and CS 1301	3-0-3	A study of instruction set architectures; basic processor components such as control units, ALU's, and registers; memory; input/output; and performa.0891 Tj 4.5 0 TD 0.2527 Tc (-) Tj Tc (3r TcTc -0u97.5 cachThis) roces

Prerequisite: MATH 2345 and CS 3424	3-0-3	Application of digital image processing. Topics include image enhancement and restoration, image transforms, geometrical image modifications, edge detection, image segmentation and classification, image coding, feature extraction, morphological image processing, and parallel image processing.
Prerequisite: MATH 2345 and CS 3424	3-0-3	Application of brain-style computing models. Topics include fundamentals of artificial neural networks, pattern classification, perceptrons, back-propagation, counter-propagation networks, Hopfield nets, bi-directional associative memories, competitive learning algorithms, and adaptive resonance theory.
Prerequisite: SWE 4624	4-0-4	An introduction to the development of expert systems, with emphasis on the roles of domain knowledge, knowledge acquisition, expert knowledge representation, and implementation. A major project is required.
Prerequisite: CS 3243SWE 4624, TCOM 2010 and SPCH 2400	4-0-4	Team projects in software design, construction, and implementation for a complex real-world application project. The capstone project offers the opportunity to integrate the knowledge acquired in preceding courses. Components that are emphasized include analysis and design, effective documentation, team management, verification and validation of implementation, and communication skills. Additional material and topics related to current projects may also be included. Final projects will be evaluated by faculty and/or Industrial Advisory Board members. Students will be expected to present their final projects on one day that may be different from a scheduled class day.
Prerequisite: Senior standing	1 to 4 hours	Special topics selected by the department. Offered on a demand basis.

Computer Science Graduate

Prerequisite: CS 1301 or equivalent course	3-0-3	Transition course for graduate students with a limited background in programming. Topics include pointers, recursion, data structures such as lists, stacks, queues, trees, etc., sorting and searching, data abstraction, introduction to runtime analysis and the big-oh notation. Appropriate programming projects are also included.
Prerequisite: CS 5123 or CS 1302 or IT 5113	3-0-3	Transition course. This course provides an overview of various database models including relational, object-oriented, hierarchical, and network. Also covered are various file structures including sequential, indexed sequential, and direct. It covers planning,

Prerequisites: CS 5123/3424 and CS 5423	3-0-3	A study of the hardware and software of computer graphics and multimedia systems from the programmer's perspective. Includes a survey of display and other media technologies, algorithms and data structures for manipulation of graphical and other media objects, and consideration of user interface design. Major project included.
Prerequisites: CS 5423	3-0-3	A study of topics from theoretical computer science that includes automata and languages, computability theory, and complexity theory.
Prerequisites: CS 5123/3424 and CS 5423	3-0-3	Design and analysis of algorithms. Includes notations for representing algorithms, mathematical techniques for analyzing algorithms for appropriateness, efficiency, completeness, correctness, and decidability.
Prerequisites: CS 5123/3424, Matrix Algebra, and Probability and Statistics		

2-2-3 A study of the fundamentals of graphic language used by construction professionals, with an emphasis on developing skills in

1-2-2

Prerequisite: CNST 3410

	3-0-3	A study of the legal constraints encountered in the workplace. Topics included are drugs and drug testing, sexual harassment, labor management cooperation, discrimination, worker compensation, foreign labor regulation, minority/women's business enterprises and professional regulation.
Prerequisite: Consent of the department head	1 to 4 hours	Special topics in construction. Offered by the department at its discretion.
Prerequisite: CNST 3000	2-2-3	A study of the management techniques used in controlling the time and cost of construction projects, including development of schedules and budgets, organization and presentation of project information, and updating and monitoring progress using critical path methodology. Development of a construction schedule and budget is required. Commonly used commercial software packages are introduced.
Prerequisite: CNST 4510 or approval of the department head	1-2-2	Hands-on computer application of commonly used commercial construction scheduling software to construction projects. Instruction in use of the software.
Prerequisite: CNST 3160	3-0-3	A study of the management of field operations and administration of the construction contract. Contract documents, project organization, supervision, working with owners and design professionals, control of cash flow, procurement, management of subcontractors, job records, contract changes and payment procedures are discussed.
	4-0-4	This course is intended to provide the student with an understanding of the market forces that shape real estate development. The course will provide a familiarity of the principles and procedures employed in determining the feasibility of improvement of real property and with an elementary knowledge of the project appraisal process. Different tools and analysis techniques used in development feasibility are the main focus of this course.
Prerequisite: CNST 4560	3-0-3	Principles of construction project management as applied to building mechanical and electrical systems. Emphasis will be placed on how specialty project management influences and integrates with the overall construction project. Techniques for managing the construction of air cond59 Tc spre(1e) Tj 3 9 TD Tc 0.151ionst (m, heorg(m, plumbg(r

	4-0-4	A study of construction safety and loss control principles and practices. Topics include project security control, construction accident prevention, safety information sources, weather precautions, emergency planning, and OSHA procedures and regulations.
Prerequisite: CNST 4560	3-0-3	A study of Construction Contract Documents and Claims. Topics include: analyses of AIA B141, A101, A201, and contractual graphic and technical documents. Other supporting construction contract documents such as bid bonds, payment and performance bond and construction modifications are studied. The traditional tri-union construction contract formation process is examined in relation to the owner, contractor, material, men, and subcontractors. Discussions regarding damages for differing and unforeseen conditions, defective workmanship, and construction delay claims are surveyed in conjunction with AAA construction arbitration rules regarding emerging construction manager contracting processes.
Prerequisite: CNST 4570	3-0-3	An examination of real property law, elements of land ownership, title of land in Georgia, eminent domain questions, estates and interest in land, zoning and easements, tenant landlord law, real property contracts, deeds, covenants, title examination and closing transactions, and environmental regulations.

Prerequisite: CNS T 6100	4-0-4	This course will survey the growth of the alternate dispute resolution field, giving emphasis to alternative dispute resolution theory and its application to the construction industry. A student will be exposed to different resolution processes relative to the construction industry: namely, negotiations, meditation and arbitration.
Prerequisite: CNST 6100	4-0-4	This course is designed to explore the multiple contractual complication

	1 to 4 hours	Prerequisites: CNST 6000, completion of 28 hours of graduate Construction degree course work or consent of the department head, approval of thesis proposal Intensive research project that results in a formal written thesis. The thesis topic will usually be in an area of interest discovered by the student in early stages of the Construction program or work experience. Students may enroll for a maximum of 4 hours per term for thesis credit. The student works independently under the supervision of the thesis advisor on an inquiry that is significant to the construction industry. The topic must be approved before registration and the student must continue the work in a manner that is satisfactory to the thesis advisor. The student is expected to submit a substantial body of research work and to defend this submittal and the course work taken in the degree program. This course may be repeated with departmental approval but no more than 8 hours may be applied toward the requirements of graduation.

Design Foundation

	2-0-2	This course provides entry students with the educational requirements and the licensing procedures for design professionals. Development of the built environment, the study of professional architectural practice and associated disciplines are also introduced.
	0-12-4	Students investigate and document the spaces dedicated to a familiar activity as a means for developing basic skills and sensitivities toward the role of architecture in enhancing the quality of life.
Prerequisites: DFN 1000, DFN 1001	0-12-4	This course employs investigation, comparison, and evaluation of alternatives in order to understand the relationship between behavior and architectural form.
Prerequisite: DFN 1002	1-9-4	This course concentrates on shaping, organizing, and comparing architectural space using strategies developed by Architects.
Prerequisite: DFN 2003	0-9-3	The culmination of the Design Foundation incorporates and builds upon all previous course work. It adds the fundamental concept of typology to previous experiences with architectural space, composition, and program. Students investigate layers of functional zoning, geometric organization, three dimensional configuration, openings, physical texture, color, character, and symbolic meaning.
	3-0-3	The history of architecture is presented as a collection of buildings, each of which is seen as a concrete solution to a given set of culturally derived problems and issues. These buildings, as precedents, are not to be analyzed based on composition or aesthetic image, but rather as design solutions to complex socio-cultural problems. History is used as a didactic device to aid the design student in problem solving by presenting examples of how architects have successfully transformed the intellectual concerns of their day into built form.
Prerequisite: MATH 2253	3-0-3	This course is an introduction to architectural structures with an emphasis on [illegible]

Economics

Prerequisite: MATH 1111	3-0-3	An analysis of the economics of production in American society. Particular emphasis is given to the study of fiscal and monetary policies, and to the study of the impact of government upon the functioning of these industries. Topics include marginal productivity analysis, graphic models, national income analysis, and the importance of the labor market in American industry.
Prerequisite: MATH 1111	3-0-3	An analysis of the economics of production in American society. Particular emphasis is given to the study of fiscal and monetary policies, and to the study of the impact of government upon the functioning of these industries . Topics include marginal productivity analysis, graphic models, national income analysis, and the importance of the labor market in American industry.
Prerequisite: MATH 1111	3-0-3	This course deals principally with economic theory of consumer behavior and business decision-making. Concepts which will be studied include competitive environment; consumer equilibrium point; supply and demand curves; production and cost functions; determinations of optimum quantity; price, profit, cost and other relevant decision variables.

Electrical and Computer Engineering Tech

	2-0-2	This course will provide an introduction to Electrical and Computer Engineering Technology and to SPSU, to include: an introduction to the ECET faculty, an overview of career opportunities, available campus facilities, student organizations, etc. Some of the skills necessary to students will also be introduced. These include: writing formal lab reports and learning basic computer skills.
Prerequisites: ECET 1000 or concurrently, MATH 1113 or concurrently	1-3-2	A study of several skills necessary in ECET. This is to include: lab orientation with simple circuits, critical thinking concepts, an introduction to C++ programming and other computer skills.
Prerequisites: ECET 1010, ENGL 1101, MATH 2253 or concurrently	3-3-4	This course introduces basic electrical quantities. Techniques for analyzing resistive networks are heavily emphasized. In addition, the physical mechanisms underlying capacitance and inductance are examined along with analysis of transient responses in circuits containing resistors and capacitors or resistors and inductors. The Fu2hy29.. Drac r adda5 Twein ar T16Me is tos2212.2 c -0.1627 Tc adg1Dras 422.25 48i0n

Prerequisites: ECET 1200, ECET 2300	3-3-4	The study of digital design principles with emphasis on the use of LSI, MSI, and SSI circuits in the application and design of complex digital systems. Principles covered include: the study of an industry standard micro-controller, assembly language programming, logic family characteristics, system interfacing and system timing issues.

Prerequisites: ECET 2110 or concurrently, MATH 2254 or concurrently, PHYS 1111si7nDa10 -9.7500.1093 Tc 0.0658

Prerequisite: ECET 2110	3-3-4	This introductory course in the characteristics and applications of basic electric machinery will begin with a review of magnetic circuits and transformers. Single-phase, three-phase, auto-transformers, instrument transformers and buck-boost transformers will be covered. Three-phase and single-phase induction motors, synchronous motors and synchronous generator, dc motors and dc generators will also be included. The laboratory exercises will involve operating and testing transformers and machines to determine their operating characteristics. Among these characteristics will be the efficiency and voltage regulation as determined by direct and indirect methods.
Prerequisites: ECET 2210, ECET 2310	3-3-4	An introduction to test engineering principles with emphasis on computer-controlled instrumentation and data acquisition using industry standard bus structures such as the IEEE-488 bus and related protocol, D/A, A/D, and parallel I/O interfaces. Application software will be written in Visual Basic for testing a particular unit and interfacing various GPIB instruments. Visual Basic will be used as the overall project management software for the Unit Under Test. Design for testability and related topics will also be covered. Laboratory projects will emphasize automated testing using the principles covered in class.
Prerequisites: ECET 2310, MATH 2306	3-3-4	This course is a study of feedback control systems theory including practical applications of compensation and PID concepts. Control system modeling, transient and steady state characteristics, stability and frequency response are analyzed. Compensation and controller design using Root locus methods are covered. The use of control system software, such as MATLAB, in the analysis and design of control systems is emphasized.
Prerequisite: ECET 2210, ECET 3810	3-3-4	

Prerequisites: ECET 2210, ECET 2310	3-3-4	The fundamentals of specifications, standards, devices, circuits and systems used in audio are studied. Acoustics, power amplifiers, preamplifiers, frequency contouring circuits, signal processors, microphones, loudspeakers and sound reinforcement systems are covered. Laboratory investigations include proto-boarding, designing and analyzing selected practical audio circuits. P-Spice simulations and computer-aided testing are utilized in conjunction with several laboratory exercises. One of the lab periods will be utilized for a field trip to a local sound reinforcement facility.
Prerequisites: ECET 2310, PHYS 1112K	3-3-4	A study of radio frequency and optical-wavelength communications circuits and their applications. A variety of basic transmitter and receiver circuits are studied, including amplifiers, tuned oscillators, phase-locked loops, modulators and demodulators. Spectral analysis is introduced and the effects of noise in communications systems are investigated. Laboratory experiences demonstrate circuits and concepts discussed in the classroom.
Prerequisite: ECET 3410	3-3-4	This course investigates point-to-point radio frequency (rf) communications systems. The underlying principles, requirements, and characteristics of electromagnetic propagation and antennas are studied. Existing systems and recent advances in the area of wireless communications will be covered, including terrestrial and satellite applications. Topics covered include FDMA, TDMA, and CDMA based design. The application of wireless design principles to radar will also be discussed. Laboratory experiences and computer simulations supplement the classroom discussions.
Prerequisite: ECET 3410	3-3-4	A detailed study of optical-wavelength communications systems. The underlying principles, requirements, and characteristics of optic sources, detectors, and dielectric wave-guides (fibers) are studied. Heavy emphasis is placed on systems analysis, including power budgets, bandwidth budgets, and signal-to-noise ratios. Recent advances in the area of fiber optics will also be discussed. analysis, ire studied. w (t) Tjions 9 TD -w (com

3-3-4 An introduction to the devices, circuits and systems utilized in power electronics. An overview of power semiconductors: switches

Prerequisites: ECET 2310, ECET 3500

3-3-4 A study investigating the issues encountered by management in

Prerequisite: ECET 3400

Prerequisite: Communications background equivalent to ECET 3400, ECET 4820	3-3-4	A detailed study of local area networks emphasizing characteristics, standards, protocols, and performance. Topics include Ethernet, Token Ring, routing, domain and peer networking, and network security. The configuration and interaction of networking devices, operation systems, and applications will be examined. Lab exercises and projects illustrate concepts.
Prerequisite: Communications background equivalent to ECET 3400, ECET 3410	3-3-4	A detailed study of wireless communication networks with special emphasis on applications, access techniques and interconnection with other networks. Topics include cellular telephones, personal communication systems, wireless LANs, and satellite systems. Students will gain practical experience by studying networks used by enterprises to enhance productivity and competitiveness.
	3-3-4	This course is a thorough study of Modern Control Systems. Both time-domain and frequency domain methods of analysis, design and compensation of linear feedback control systems are covered. Topics include Laplace Transform methods, State Space analysis, stability analysis using Root Locus and frequency response methods, Nyquist criterion, and practical examples of design and compensation of feedback control systems. This course will make extensive use of computer-aided design packages such as MATLAB.
Prerequisite: Power system analysis background equivalent to ECET 4510	3-3-4	This is a course on modern power system analysis and design. The first part of the course is devoted to the typical topics in Power System analysis. In the second part of the course, emphasis is placed on topics such as power flow solutions, symmetrical faults, symmetrical components and sequence networks, unsymmetrical faults and power system stability.
Prerequisite: Undergraduate machinery course equivalent to ECET 3500	3-3-4	This course combines electric machinery, control and power electronics. The first part of the course is devoted entirely to Power Electronics. The second part is devoted to the application of power electronics in the speed control of electric machinery. Both dc and ac motor drive systems are covered. MATLAB and Spice will be extensively used for computation and verification purposes. Practical and hands-on experience will be gained using practical electric drive systems in the second part of the course.
Prerequisites: At least 24 hours completed toward degree and permission of project advisor	1-8-4	Guided by his/her Project Committee, the student will prepare a Proposal for his/her Masters Project. This proposal must conform to the published guidelines, be approved by the Project Committee and filed with the ECET office. In addition, the student will make substantial progress toward meeting the goals stated in the proposal and file an approved Progress Report. The filing of the Project-Committee approved Proposal and Progress Report will constitute completion of this course.
	1 to 5 hours	The topic election and credit for this course will be by written agreement among the student, the instructor and the department head.
Prerequisites: At least 28 hours completed toward degree and permission of instructor	2-6-4	A seminar in research and development methods, current industrial practice and application of new technologies. Guided by the instructor, each student will choose a current topic in Electrical or Computer Engineering Technology, become informed about the principles and applications of that topic and ultimately produce a research report which is presented during the ECET Forum.
Prerequisites: ECET 6704 and permission of project advisor	1-8-4	Guided by his/her Project Committee, the student will complete his/her Masters Project. The student must demonstrate completion of the project to his/her committee and obtain the committee's approval. The student will prepare a final report that completely documents the project and will present this report to the department. Written acceptance by the Committee of the Final Report will constitute the completion of this course.

Engineering Graphics

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1-3-2	An introductory course in engineering graphics for non-MET majors. This course introduces the students to a broad range of engineering graphics topics. Manual drafting, freehand sketching, and computer-aided design (CAD) assignments cover theory and application in such areas as fundamentals of engineering graphics, drafting technique, lettering, orthographic projection, sectional views, pictorial drawings, dimensioning, and industry practices. (MET students may not take this course for credit.)
3-3-4	An introduction to engineering graphics in mechanical engineering and manufacturing with an ed9actur1mouro euswithco 180 07 TD -0.0435154 0 Tw (3) Ter

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3-0-3

Prerequisite: ENGL 1102

Geography

	3-0-3	A survey of global patterns of resources, population, culture and economic systems. Emphasis is placed upon the factors contributing to these patterns and the distinctions between the technologically advanced and less advanced regions of the world. Includes cultural, political, urban, and economic geography.
Prerequisite: GEOG 1101 or consent of the department head	3-0-3	Examines the geography of the world and its impact on population, urbanization, trade resources, and development as an ongoing framework for analysis and global perspective.

Prerequisite: Junior standing or consent of the department head	3-0-3	Survey of developments in physical, biological, and human sciences and their connection to western culture from the sixteenth century to the present.
Prerequisite: Junior standing or consent of the department head	3-0-3	Survey of the development of technology and its impact on American society. Topics will include technology transfer and American innovation, the organization and mechanization of industrial production, and the technologies of cities, households, transportation, communication, and leisure.
Prerequisite: Junior standing or consent of the department head	3-0-3	Survey of the development of American science and medicine and their impact on American society. Topicswill include the development of various fields of science, the relationship between science and government, the relationship between science and medicine, and the development of medical knowledge and practice.
Prerequisite: Consent of the department head	1 to 3 hours	Special topics in American or world history. Offered by the department on a demand basis.

Humanities

Prerequisite: Consent of the department head	1 to 3 hours	Special topics in humanities. Offered by the department at its discretion.
Prerequisite: Consent of the department head	3-0-3	A colloquium. A study of the ways in which technology interacts with other areas of culture.

Industrial Engineering Technology

	1-0-1	A part of this course is devoted to an orientation to the department, to college policy, and to expectations for students. The rest of the course is devoted to an orientation to the field of Industrial Engineering.
	3-3-4	As an introduction to industrial systems and processes, this course will explore the basic production processes from the viewpoint of systems and design. The role and responsibilities of a graduate will be explored as well as the principles related to human, quality, and organizational, legal and ethical aspects of professional practice. The design and operation of production processes are studied as they relate to the areas in manufacturing, distribution and service industries.
	3-0-3	The first of a two-course sequence, the students will study and practice basic double entry accounting, including development of basic financial statements and the development and study of cash flow statements.
Prerequisite: MATH 1113 and IT 1113	4-0-4	As a study of descriptive and inferential statistics and applied probability, the course includes measures of central tendency and variability, statistical sampling and estimation, probability distributions, introduction to hypothesis testing and nonparametric statistics. Industrial applications rather than theoretical developments are emphasized. Computer based solution techniques are used when appropriate. This is the first of a two-course sequence.

3-0-3 An overview of the major service industries in the United States, including Health Care, Distribution, Banking, and Retail will emphasize the engineers' role in these industries. Case studies will be used to study the rising prominence of the service sector in

	3-0-3	This course offers a study of the planning of purchasing and materials activities. Topics covered will include specification and standardization, vendor evaluation, receiving and storage, pricing, reciprocity, negotiation, legal aspects, and computer based purchasing. Just-in-time (JIT) ordering, bar code labeling, and electronic data interchange (EDI) will also be examined.
	3-0-3	This course offers an analysis of decision making in the current logistics environment and the tools needed for finding solutions to problems relating to purchasing, inventory, transportation, and warehouse management.
Prerequisite: IET 4405	2-3-3	This is an in-depth study of simulation as applied to manufacturing, inventory and distribution systems. Topics will include basic simulation and system modeling techniques, random sampling procedures, production modeling, inventory modeling and system evaluation. Emphasis will be upon hands-on simulation of various operations using ARENA, a PC-based graphical simulation program.
	3-0-3	This course gives an in-depth approach to the proper ways to organize and operate a warehouse. Topics include warehousing, principles, site selection, facility design, facility size, JIT, automation, and advanced warehouse technology.
Prerequisite: IET 4422	1-6-3	This course focuses on the student completing a project that is a

Prerequisite: IT 1113 or 1301	4-0-4	This course includes topics of multi-dimensional arrays, searching, sorting, simple linked-lists, stacks and queues and applications development. The course will be taught using either a visual programming environment or state-of-the art language (such as JAVA). Applications will be developed integrating the various programming concepts learned.
Prerequisite: CS 1302 or IT 1124	4-0-4	This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an overview of computer organization and architecture, machine language and modern language.
Prerequisite: CS 1302 or IT 1124	4-0-4	This course examines the software engineering life cycle. Topics include problem definition, systems analysis, requirements gathering, designing systems, development of systems, testing and implementation. Team projects will be done.
	3-0-3 3-0-3	A study of the theory and practice of internet marketing. Emphasis will be placed upon the concepts of customer satisfaction in a web environment. Topics include total quality management, innovation in the marketplace, product distribution using the web, cooperative associations, advertising, and the development of brands and trademarks.
IT 34233-0-3 Prerequisites: IT 1124 and IT 3124	3-0-3	An introduction to basic operating system principles. Topics include memory management, peripheral device management, file 3-0-3Allmentser073ine14.11to basic operating tem principltes! IT .lud system management and process management. Different type7t9rent 3a ne14.1157 Tc1-0.012 sic

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Prerequisite: CS 5153 or equivalent	3-0-3	Issues in setting up and running a multi-user computer or data system. Includes RFP generation, vendor selection, project planning and control methods, backup and disaster recovery plans, site preparation, managing help desks, end user training, IT professional development, contract negotiation, outsourcing relationships and job scheduling.
Prerequisite: CS 5153 or equivalent	3-0-3	A study of the use of computer and information management systems in the management of organizations. Includes formal characterization of management structures, identification of information needs, and integrated tools for providing MIS support. Major project included.
Prerequisite: IT 5133 and CS 5153, or equivalent	3-0-3	This course covers the installation and management of operating systems and telecommunications networks, including cost-benefit

WebBSIT

	3-0-3	This course is an introductory course in information technology. Topics include foundations in hardware, software, data and an overview of the use of information technology in organizations.

Prerequisite: WBIT 2311	3-0-3	An advanced course in database design, development and deployment. Course emphasizes database design drawing distinctions between data modeling and process modeling using various modeling techniques including Entity-Relationship Modeling, Object Modeling and Data Flow Diagramming; database development using the relational model, normalization, and SQL; database deployment including control mechanisms, forms, reports, menus and web interfaces. Additional topics include procedures, functions, packages and triggers. Students will design, create and process a database to demonstrate competency in the course content.
	3-0-3	This course covers the basic design principles and tools for creating multimedia components used in web-based systems; use of tools to create and edit graphics, sounds, and animations to be used in multimedia presentations. Prerequisites: Introduction to Information Technology.
Prerequisite: WBIT 1100	3-0-3	The course provides a survey of techniques and tools for developing basic web pages for delivery of text and graphic information; focus on page markup languages, client-side scripting, page design principles, page layout techniques, markup language syntax, and page styling methods.
Prerequisite: WBIT 1100	3-0-3	This course introduces students to the architectures of computer systems and the operating systems that run on them. It explores and gives experience with some common computer designs and operating systems. Topics include basic computer architecture, instruction set architecture, memory, memory management, processes, and file systems.
Prerequisite: WBIT 3500	3-0-3	This course covers computer network and communications concepts, principles, components, and practices; coverage of common networking standards, topologies, architectures, and protocols; design and operational issues surrounding network planning, configuration, monitoring, troubleshooting, and management.
Prerequisite: WBIT 3110 and 3410	3-0-3	The emphasis of this course is on basic principles and practices of E-business and E-commerce. Topics include infrastructures and applications of E-commerce, E-Tailing, E-Marketing, advertisement, B2B, B2C, C2C, E-Government, M-Commerce, E-Learning, electronic payment systems, security, and legal issues. Students also learn to build simple dynamic E-commerce sites using server-side scripting.
Prerequisite: Senior standing	3-0-3	This course covers historical, social, economic and legal considerations of information technology. It includes studies of professional codes of ethical conduct, philosophy of ethics, risk analysis, liability, responsibility, security, privacy, intellectual property, the internet and various laws that affect an information technology infrastructure.
Prerequisite: Senior standing	3-0-3	A capstone course for BSIT majors that includes completion of a digital portfolio, an electronic resume representing skills acquired and projects completed. The portfolio will be introduced in an earlier course and students will be expected to add to the portfolio selected assignments during their last few semesters. Faculty will include Portfolio comments and students will be expected to record reflections on accomplishments. Finally, in cooperation with the IT industry, students will be expected to secure an internship and document internship hours, objectives and supervisor evaluations in the Portfolio.

Prerequisite: WBIT 3110, 3200, and 4520	3-0-3	Most IT applications used by organizations are configured from components that have been purchased from third-party vendors. This includes both hardware components and, increasingly, software components. In this course, students will study the component acquisition process, and methods and techniques for integrating these components into an existing IT infrastructure.
Prerequisite: WBIT 2311	3-0-3	Fundamentals of human-machine interfaces, both cognitive and physical. Learning styles and effects of short-term memory on cognition and reaction will affect hardware and software development. Students will design a prototype interface.
Prerequisite: WBIT 3500 Corequisite: WBIT 3510	3-0-3	This course is an introduction to information security in computing. Topics include computer, network (distributed) system and cyber security, digital assets protection, data backup and disaster recovery, encryption, cryptography, computer virus, firewalls, terrorism and cyber crimes, legal, ethical and professional issues, risk management, information security design, implementation and maintenance.
Prerequisite: WBIT 3111, 3200, and 3600	3-0-3 M 3	The applications of IT applications has3allowed many organizations to collect large amounts of data on their clients and to use such data to improve the relationships with their customers. In this course, students will study customer relationship management systems, including the reasons for their emergence, the functionalities that theip management

Prerequisite: MATH 2254	4-0-4	An axiomatic treatment of real vector spaces, including computational and theoretical basics. Topics include bases, subspaces, linear transformations, matrix operations, diagonalization, inner product spaces, and eigenvalues.
Prerequisite: MATH 2254	4-0-4	The structure of the real number system line from a topological and analytical point of view. Topics include the continuous nature of the real line, open and closed sets, sequences and formal convergence, compactness, topics related to functions of a real variable.
Prerequisite: MATH 3320	4-0-4	A continuation of MATH 3320. Topics include continuity, uniform continuity, formal definitions of the derivative and integral, covers, and composite functions.
Prerequisites: MATH 2306, MATH 2335	3-0-3	A continuation of MATH 2335. Systems of equations, approximation theory, and differential equations. Understanding the nature and limitations of each method is emphasized.
	1 to 5	Special topics in mathematics. Either a course taught on a one-time basis or a pre-arranged project conducted by specific written arrangement with an individual instructor.
Prerequisite: MATH 2306	3-0-3	Topics include orthogonal functions, Sturm-Liouville problem, boundary value problems for partial differential equations, the heat equations, wave equation, Laplace equation and power series solutions. Included are Bessel functions, Legendre polynomials, and their applications.
Prerequisite: MATH 2255	3-0-3	Scalar and vector fields, the del operator, curl, divergence, line integrals, conservative fields and potentials, and surface integrals. The divergence theorem and Stokes' theorem. Applications to electromagnetic fields and to heat and fluid flow.
Prerequisites: MATH 2255	3-0-3	An elementary introduction to complex analysis, the complex plane, mappings and analytical functions of a complex variable, continuity,

Prerequisite: Consent of the Department Chair	1 to 5 hours	Special topics selected by the program. Offered on a demand basis.
Prerequisites: EG 1212, MET 1000, MET 1321	2-3-3	An introduction to the use and operation of selected Computerized Numerical Control (CNC) machine tools. Laboratory projects will apply selected manufacturing processes, geometric dimensioning and tolerancing and CNC programming logic. Emphasis is placed on the following: safety, operational planning, design considerations, bonus tolerance, virtual condition, work holding requirements and manufacturing problems associated with engineering materials.
Prerequisite: Consent of the Department Chair	1 to 5 hours	Special topics selected by the program. Offered on a demand basis.
Prerequisites: ENGL 2010, MATH 2254, MET 3121	3-3-4	A study of the fundamentals of fluid statics and dynamics including hydrostatic forces on submerged plates, continuity of fluid flow and fluid flow principles. Applications of turbulent and laminar flow in conduits are emphasized. The systems approach is practiced in analyzing the application of flow measuring devices, piping, pumps and turbines. The laboratory reinforces the principles of fluid mechanics as they apply to incompressible fluid flow and low speed air flow. Developing experimental data into effective laboratory reports is emphasized.
Prerequisites: MATH 2254 or concurrently, PHYS 1111K or PHYS 2211K	3-0-3	The calculation of forces and moments acting on machine parts, frames, and structures. The equilibrium of force systems, shear and moment diagrams for beams, and friction are studied.
Prerequisite: MET 3121	3-0-3	A study of the mechanics of particles and rigid bodies. Topics covered include: kinematics and kinetics of particles; work and kinetic energy; impulse and momentum; rigid body motions; relative motion and moving coordinate systems; and an introduction to mechanical vibrations.
Prerequisites: CS 2123, MET 3122	3-0-3	The analysis of motion, velocity, acceleration, and forces in mechanisms and machines. Emphasis is placed on the analytical methods suitable for computerized analysis as well as graphical methods for visualization and preliminary design studies. Mechanical vibration isolation is also discussed.
Prerequisites: ENGL 2010, MET 3121	3-3-4	A study of stress and strain of deformable bodies in tension, compression, bending, and torsion. Topics covered include: axial stress and strain; thermal stress and strain; statically indeterminate systems; torsional stress and strain; power transmission in shafts; bending stresses in beams; beam deflections; combined stresses; elastic buckling in columns; and finite element analysis methods.
Prerequisites: CHEM 1211K; Co-requisite: MET 3131	3-3-4	A study of metals, ceramics, polymers, and composites as related to design. Areas include corrosion, atomic structure, mechanical properties, failure theories, fatigue, creep, cold working, heat treating, alloying, and non-destructive testing. The lab work includes tensile testing, heat treating, impact testing, hardness testing, and corrosion.

Prerequisites: MET 2322, MET 3131	3-0-3	Jigs and fixtures for production machining processes are covered. Specific subjects include methods of gauging work pieces, ease and simplicity of operation, assembly methods, capital evaluation, techniques for locating and holding work pieces, time studies, tool steels, bending allowances, and reverse engineering techniques. The course is design project oriented. Projects include calculations of tooling forces and costs as well as complete production drawings of the tool design.
Prerequisites: MATH 2253, PHYS 1111K or PHYS 2211K	3-0-3	A study of the fundamental laws of thermodynamics and heat transfer for non-MET students. Properties of ideal gases, mixtures of ideal gases, real substances as related to heat engines, heat pumps, refrigerators, and heat exchangers are covered. Basic applications of thermodynamics in the study of power plants, internal combustion engines, refrigeration systems and air conditioning systems are included. Heat transfer topics are introduced with applications for conduction, convection, and radiation. (This course may not be taken for credit by MET students).
Prerequisites: MATH 2253, PHYS 1111K or PHYS 2211K	3-0-3	Covers the fundamentals of thermodynamics. Use of steam and gas tables is introduced. Property relations for ideal gases and incompressible liquids are introduced. Applications of the First and Second Laws to closed and open systems are studied. Heat engines, refrigerators, heat pumps, availability and irreversibility are studied.
Prerequisites: MET 3101, MET 3401	3-0-3	Continuation of Thermodynamics I with emphasis on applications. Transient flow analysis, combustion, internal and external combustion cycles, gas turbines, compressors, refrigeration and air conditioning processes are studied. Fundamentals of heat transfer are also covered.
Prerequisite: Consent of the Department Chair	1 to 5 hours	Special topics selected by the program. Offered on a demand basis.
Prerequisites: MATH 2306, MET 3123	3-0-3	Theory of mechanical vibrations with applications to machinery and the kinematics and kinetics of three dimensional motion of rigid bodies are covered. Conventional and computer methods are used.
Prerequisite: MET 3132	3-0-3	The course covers polymers, ceramics, composites, and advanced topics in ferrous and non-ferrous metallurgy. Advanced topics in mechanics of materials, including failure theories and analysis of composites are studied. Traditional methods and Finite Element Modeling and Analysis (FEM/FEA) are used.
Prerequisites: EG 1212, MET 3122, MET 3123, MET 3132	4-0-4	The design of machines and machine elements, and cost considerations. The course focuses on power transmission in machines including gears, belts, pulleys, bearings, lubrication, clutches, brakes, chains, power screws, and gear trains. Stress calculations and material selection are discussed. Broad design issues such as safety, ethics, patents, product liability, time value of money, return on investment, and breakeven analysis are covered. Students work in design teams on a major design project.
Prerequisite: MET 4141	3-0-3	A continuation of Machine Design I, with emphasis on topics related to the design of machine elements for structural integrity, reliability, and economy. Application of advanced topics in strength of materials to machine design. The course includes a major design project.

3-0-3

Prerequisite: MET 3331

	1 to 5 hours	Independent study on topics of mutual interest to faculty and

Prerequisite: Consent of the Department Chair

	3-0-3	This course emphasizes on essential management skills in the health care industry such as planning, organizing, directing, and controlling. This course addresses the supply chain of health care services involving physicians and health care organizations. Topics include health care finance, accounting, billing, budgeting, and theories of human resources management.
Prerequisite: MGNT 3105	3-0-3	The course introduces the technical and legal aspects of human resources management. Topics include: human resources planning, recruitment, selection, training and development, performance appraisal, compensation, labor relations, occupational health and safety, and the evaluation of human resources management programs.
Prerequisite: MGNT 3105	3-0-3	An examination of the impact of private enterprise decisions on the commonweal. Consideration will be given to various technology policy topics and ethical considerations in business decision-making.
Prerequisite: MGNT 3105	3-0-3	This course will provide a comprehensive, balanced view, one which emphasizes both the behavioral and quantitative sides of project management. A study of the systems philosophy, systems development process, human organizations and behavior, methods and procedures, and managing systems will provide the background necessary for managers to "do" project management.
	3-0-3	This course deals with the components of a telecommunications/data communication system for business. Concepts associated with the development of communication networks include network structures, local area networks, PC communications, voice/data integration, and wide area networks.
Prerequisites: Junior standing, ECON 1101, MGNT 3125, MGNT 3135	3-0-3	This course is designed to provide students with better understanding of the key issues, legal and socioeconomic environments, opportunities, challenges, and managerial processes that are unique to international business.
Prerequisites: MGNT 3105, MGNT 3505	3-0-3	A first course in production/operations management. Topics include productivity, competitiveness, strategy, product and service design, process selection, capacity planning, facility layout, design of work systems, and location planning.
Prerequisites: MGNT 3105, MGNT 3505	3-0-3	A second course in production/operations management. Topics include quality management, aggregate planning, inventory management, materials requirement planning, just-in-time systems, scheduling, and project management.
Prerequisite: MGNT 3105	3-0-3	This course focuses on the management of technologies within organizations. Specific topics include the management of innovation, technological development, research and development, the justification and strategic implications of new technologies, and the development of a technological strategy. The management of both manufacturing and information technologies will be emphasized.
Prerequisite: MGNT 3105	3-0-3	This course will examine how technology impacts public issues. The content of the course will be based on the issues currently of concern and will range from ecology to health care to telecommunications.
Prerequisites: Senior standing	3-0-3	An examination of the process of managing the total organization. Emphasizes innovations in structure, product, markets, and long-term organizational commitments as these relate to organizational success.

	1 to 5 hours	Special topics offered by the department on a demand basis.

Prerequisite: Senior standing

Management Graduate

	3-0-3	Students are introduced to fundamental principles of accounting for economic events and the use of basic financial statements. The business finance component presents an overview of financial analysis, budgeting, asset management and financial strategy in business decision-making. Transition course for the undergraduate common professional core (CPC).Covers the concepts from ACCT 2101 and MGNT 3125.

-making. Transition cour3s br 0.1308 Tw (2101 and MGNT 3125.) Tj 81 0 TD 0 Tc -0.0435

Prerequisite: MGNT 3105 or equivalent	3-0-3	or equivalent This course examines the working relationship between management and professional employees in high technology organizations. Using management theory as a foundation, the course emphasizes experiential learning in order to develop effective leadership and team building skills which students can apply immediately. Learning methods include case studies, team exercises, role playing, individual and group presentation, experiential and group discussions.
	3-0-3	This course will examine how technology impacts public issues. The content of the course will be based on the issues currently of concern and will range from ecology to health care to telecommunications.
Prerequisites: MGNT 3105, MGNT 3505 or equivalent	3-0-3	A study of the project planning, organizing, control concepts and techniques. Coverage will include projects and specifications. Work Breakdown Structures (WBS), the Critical Path Method (CPM), the Program Evaluation and Review Technique (PERT), Gantt charting, and time/resource management.
Prerequisites: MGNT 3105 or equivalent	3-0-3	The concepts of TQM will develop leadership and interpersonal skills along with an understanding of planning and customer satisfaction, in addition to process analysis. The discussion will focus on quality and how to use project teams, such as selecting a project and choosing team members. Topics will be covered concerning setting up meetings and guidelines for productive meetings. Team aspects and team building and activities will also be discussed.
Prerequisites: MGNT 3105, MGNT 3125, MGNT 3135 and MGNT 6005 or equivalent	3-0-3	This course addresses the management challenges associated with starting and successfully running a new venture. It provides students with an opportunity to apply the theories and tools that they have learned elsewhere in the curriculum to the venture creation process.
Prerequisites: MGNT 3105, MGNT 3125, MGNT 3135, MGNT 6005 or equivalent	3-0-3	

Management Information Systems

Prerequisite: MGNT 2201	3-0-3	This course provides an understanding of database analysis, design, and implementation in the end-user computing environment. The focus is on issues and principles of managing organizational data. Students will get extensive experience in developing data models, creating databases, and formulating and executing queries and reports.
Prerequisite: CS 1113 or equivalent programming experience	3-0-3	This course provides practice in structured analysis and design of business processes with emphasis on the development of business applications. Methods of system documentation are examined through use of tools and techniques for describing process flows, data flows, files, input/outputs and program specifications.

Management Information Systems Graduate

	3-0-3	A comprehensive study of the application of information technology within organizations. Includes focus on data generation, retrieval, analysis, and utilization in managing and decision-making activities.
Prerequisite: MIS 6010	3-0-3	This course provides an understanding of the system development and modification process. It enables students to evaluate and choose a system development methodology. It emphasizes the factors for effective communication and integration with users and

	3-0-3	The purpose of marketing research is to generate information to improve decision making. This course focuses on determining when research should be conducted and designing the appropriate means for gathering and interpreting information. The course examines issues from the perspective of both the manager and the researcher by relying on extensive readings, cases, and assignments.
Prerequisite: MGNT 3505		
	3-0-3	The marketplace has been transformed from a historical production
Prerequisite: MGNT 3135		

Operations Management Graduate

Prerequisite: MGNT 4151 or equivalent	3-0-3	A survey of service and production management. Topics include productivity, forecasting, competitiveness, operations strategy, product and service design, process design selection, capacity planning, facility layout, design of work systems, and location planning.
Prerequisites: MGNT 4151 or equivalent, OPSM 6005	3-0-3	This course is a continuation of OPSM 6005. Topics include aggregate planning, inventory management, quality assurance, materials requirement planning, shop floor management, scheduling, performance measurement, Just-in-Time, synchronous operations, and global enterprise operations.
Prerequisites: MGNT 3145, MGNT 4151 or equivalent	3-0-3	Study of the activities, responsibilities, relationships and system involved in the purchase of materials, services and capital equipment. Topics include identifying requirements; evaluating and selecting "best value" vendors; techniques for planning and executing the purchasing function, including fundamentals of negotiating, ethical and legal aspects of purchasing; interactions with the engineering, quality, manufacturing, materials management, transportation and legal functions and with suppliers; and international aspects of purchasing. Purchasing responsibility for quality, delivery, inventory, price and contribution to profit are also covered.

Philosophy

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thermg920 8.25 Tf 0 Tc -0.0435 435255c -0.2786 T0inciples of Physics I

Prerequisite: ENGL 1101	3-0-3	An exploration of the nature of philosophy. The course addresses such topics as knowledge and belief, God and the problem of evil, freedom and determinism, language and meaning, and appearance and reality.

Physics

Prerequisite: MATH 1113	3-3-4	An introductory course which will include material from mechanics, thermodynamics, and waves. Elementary algebra and trigonometry will be used. Laboratory exercises supplement classroom work.
Prerequisite: PHYS 1111K or PHYS 2211K	3-2-4	An introductory course which will include material from electromagnetism, optics, and modern physics. Elementary algebra and trigonometry will be used. Laboratory exercises supplement classroom work.
Prerequisite: MATH 2253	3-3-4	An introductory course which will include material from mechanics, thermodynamics, and waves. Elementary differential calculus will be used. Laboratory exercises supplement classroom work. This

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algebra [illegible] ex2rcises supplem2nt clas13cs. Elementary

	3-0-3	Fundamentals and applications of geometric and physical optics.
Prerequisite: PHYS 2212K		
	1-3-2	A study of discrete and integrated circuits that are commonly found in the physics laboratory.
Prerequisite: PHYS 2212K		
Prerequisite: PHYS 2212K	1-3-2	An introduction to computational physics problem solving, primarily using Windows-based MathCad but also including an introduction to Maple. Topics include equation solving, the use of vectors and matrices, 2-D and 3-D graphics, differential equation solving, simple programming, and the analysis and simulation of physical processes. Both numeric and symbolic methods are covered.
Prerequisite: PHYS 1112K or PHYS 2212K	4-0-4	An introduction to the concepts and calculations involved in understanding the structure of matter and the world of the quantum. Topics include the Planck theory of radiation, particle/wave duality, Schrodinger equation solutions for simple potentials, and properties of the one-electron atom. Applic998 Tcthian solutions foo998 Tcth79 sn0,

Prerequisite: PHYS 1112K or
PHYS 2212K

Prerequisite: A course in statistics, such as MATH 2260 or QA 6610	3-0-3	The application of advanced statistical methodologies to the analysis and solution of quality and management problems, including probability theory, control charts, sampling, regression analysis, and design of experiments. The focus is on statistical process control and related quality technologies.
Prerequisite: QA 6611	3-0-3	Analysis of statistical experimental design strategies, and planning of experiments for the best strategy and objectives. The use of existing computer applications packages will be stressed.
Prerequisite: QA 6612	3-0-3	Analysis of appropriate probabilistic models for system reliability, including the exponential, Weibull, normal, and lognormal distributions, life prediction techniques, reliability test program plans, failure mode and effect analysis, Markov models, and maintainability concepts.
Prerequisite: QA 6610	3-0-3	Understanding inspection systems, measurement principles, and limitations. Included are acceptance sampling plans such as ANSI Z1.4, ANSI Z1.9, Dodge Romig, and stipulated risk, chain, sequential, and continuous plans.
	3-0-3	Adult learning theory, the development and management of training programs, presentation techniques, instructional aids, and assessment will be investigated.
Prerequisite: QA 6602	3-0-3	A detailed analysis of cost reductions involved in continuous improvement. Supplier evaluation, including quality audits, is reviewed to establish capability. The concept of partnerships is explored.
Prerequisite: QA 6602	3-0-3	The development of the quality organization, systems, and procedures necessary for effective participation in world markets. Creating and documenting methods and procedures are stressed.
Prerequisite: QA 6611	3-0-3	The application of simulation to quality systems. Topics covered include fundamental simulation modeling techniques, random sampling procedures and methods of estimating performance measures from simulation outputs. Emphasis will be upon hands-on simulation of various quality systems using PC based simulation languages.
Prerequisite: QA 6600 or QA 6602	3-0-3	A comprehensive survey of human factors theory, research, and applications which are of particular relevance to quality assurance. Emphasis will be placed on operator constraints in the design of work processes, workplaces, and instrumentation.
	3-0-3	The Personal Software Process (PSP) is a technology that brings discipline to the practices of individual software engineers, dramatically improving the quality, predictability, and cycle time for software-intensive systems. PSP makes engineers aware of the processes they use to do their work and the performance of those processes. The course covers quality assessment, cost estimation, configuration management, software performance measures, proof of correctness, validation and verification, and management of the total quality environment for software.
	1 to 3 hours	Students may arrange to study and perform independent research on a topic approved by a graduate faculty member. An appropriate research paper will be required and the student may be required to make an oral presentation to faculty, graduate students, and/or quality professionals.
Prerequisites: QA 6602, QA 6611 or consent of the department head	3-0-3	The course is designed to cover various topics within the field of quality assurance which are not taught in other courses. These topics might include acceptance sampling, risk analysis, regression analysis, SPC training methods, and others. This course may be used in lieu of QA 7503 or QA 7603.

Prerequisites: QA 6602, QA 6611 or consent of the department head	3-0-3	This course is designed to guide the student in a thorough and in-depth written examination of one or more topics relevant to the application of quality assurance. Emphasis is placed upon students using both traditional and electronic means to perform the research.
	3-0-3	This course is designed to guide the students through a thorough and in-depth application of quality principles in the workplace environment. Emphasis will be on the application of the princ iples and measurable outcomes.

Regents' Remedial Courses

Texas Higher Education Coordinating Board (Regents'

(Institutional Credit Only)	2-0-2	Prepares the student for taking the Reading component of the Regents' Test by providing simulated experience in the test-taking situations. Covers general test-taking strategies, reading strategies, and strategies for controlling test anxiety.
(Institutional Credit Only)	2-0-2	Prepares students for taking the Writing component of the Regents' Test by providing instruc75 re-0.75 re 75TD -905 A 35bsEmp03ti

3-0-3

	1 to 3 hours	Special topics in international issues. Offered by the department on a demand basis.
	3-0-3	Focuses on the political, economic, and social forces within a particular region or regions of the world to be designated by the instructor. A significant study abroad experience (e.g. a semester or more) may substitute for this course with Social and International Studies department approval.
	3-0-3	Focuses on the political, economic, and social forces within Latin America.
	3-0-3	Focuses on the political, economic, and social forces within China.
	3-0-3	Focuses on the political, economic, and social forces within Japan.
	3-0-3	

3-0-3 Focuses on the political, economic, and social forces within

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	3-0-3	A continuation of SPAN 2001. Not open to native speakers of Spanish.
Prerequisite: SPAN 2001 or equivalent		
	3-0-3	Development of oral fluency and listening comprehension in Spanish through linguistic and culturally appropriate activities. Expansion of general, business, scientific and technical vocabulary, among others. Not open to native speakers of Spanish.
Prerequisite: SPAN 2002 or equivalent.		
	3-0-3	Review of Spanish
Prerequisite: SPAN 2002 or equivalent		

Prerequisite: Completion of international studies upper division core and senior status OR permission of the instructor	3-0-3	This seminar course serves as the capstone course for the student majoring in International Studies: Global Technology. Students will research and complete a self-directed project in which they will integrate the interdisciplinary aspects of their program, while demonstrating their grasp of technology issues within the international context, as well as their mastery over their specific area of specialization.
	3-0-3	This course addresses current issues relating to computers, ethics, and social values. Topics include computer ethics, computer crime, abuse, social responsibility, risk analysis, computer law and cultural impact. Library and internet research components are included, and a major research paper is required.

Software Engineering

Prerequisite: CS 1002 and Math 1113 or concurrently	3-2-4	This course provides an introduction to software development with a focus on structured programming. Topics include an overview of programming, problem-solving and algorithm development, simple data types, arithmetic and logical operators, selection and repetition structures, text files, arrays, procedural abstraction and software design, and modular programming including subprograms. Programming assignments focus on the techniques of good programming style and how to design, code, debug, and document programs. The student will be able to solve problems using top-down design and modularize their solutionswith proper use of abstraction mechanisms.
Prerequisite: SWE 1301 and CS 1002	3-2-4	This second course in software development provides a focus on both abstraction and advanced programming techniques of object-oriented programming. Topics include abstract data types, multidimensional arrays and records, recursion, pointers and linked lists, use of parameterized types, software engineering concepts, and introduction to the usage of dynamic data structures (stacks, queues, and trees) to solve application problems. The student will be able to solve problems using objects, including designing and writing their own. Programming assignments emphasize good software development principles such as information hiding, re-use, use of symbolic debuggers, and separate compilation.
Prerequisite: SWE 1302 or CS 1302	2-0-2	This course provides an overview of the software engineering discipline, introducing the student to the fundamental principles and methods of software engineering. This course highlights the need for an engineering approach to software. The course presents software development processes at the various degrees of granularity. This ranges from organizational processes to team and individual engineer's processes. The role of standards (i.e., IEEE) is illustrated. CS majors may not receive degree credit for this course.
Prerequisite: CS 1002 and either CS 1302 or SWE 1302 or IT 1124	2-0-2	This course covers the historical, social and economic consideration of the discipline. It includes studies of professional conduct, risks, and liabilities, and intellectual property relative to the software engineering and computing professions. Software engineering/computing case studies will be used.
Prerequisite: SWE 2312 and MATH 2345	3-0-3	The process of extracting and validating software requirements from a customer will be explored, including levels of user/customer involvement, the dynamics of interviewing, etc. A large part of the course will be devoted to problem domain modeling using current analysis methods and supporting tools, including rapid prototyping aids. Another important part of the course covers the role of formal specifications in the validation process of requirements specifications, and the use formal reasoning during software design, and the ability to perform proofs of correctness. Working knowledge of a formal specification language (i.e., the Z language) will be demonstrated by a project.

	3-0-3	This course covers discrete time signals, operations, linearity, sampling of continuous time-signals, and discrete-time fourier transform. Frequency domain representation and analysis as well as the design and the operators of filters will be covered.
Prerequisite: SWE 3633 and MATH 2254		
	3-0-3	
Prerequisites: SWE 2623 and CS 3424		

Prerequisite: SWE 3643	3-0-3	This course addresses both technical aspects and engineering tradeoffs involved in creating reusable software and in reengineering existing software to enhance its reusability. Reuse-driven development process are described. Alternative methods for domain analysis, domain design, and component implementation are presented, comparisons drawn, and examples shown. Language design elements, assignment of functionality and physical distribution will be covered.
Prerequisite: SWE 3643	3-0-3	This course covers quality assessment, cost estimation, configuration management, software performance measures and management of the total quality environment for software development. The course presents methods, tools, and techniques for estimating effort, scheduling, resource requirements, and risk factors as determined by required product features and quality attributes.
Prerequisite: SWE 3643	3-0-3	This course focuses on organizational and technical roles in software engineering. Models of software engineering life cycle, software maturity framework, strategies of implementing software, software process assessment, project planning principles and tools, software configuration management, managing software quality and usability, leadership principles and legal issues will be covered. A required team project combines technical and managerial techniques of software design and development.
Prerequisite: SWE 4624, ENGL 2010 and SPCH 2400	4-0-4	This major project course is a follow-up to CS 4624. Emphasis is placed on completing the entire software engineering life cycle in team projects. Topics include software development, testing, implementation, and user manuals. Software engineering methodologies and some formal methods are covered. Software CASE tools are utilized in the projects from planning and analysis

	3-0-3	This course covers the entire software development life-cycle. Emphasis is placed on advanced topics including prototyping,
Prerequisite: SWE 6623		verification and validation, formal methods, and quality

Prerequisite: Satisfactory completion of the MSSWE core (SWE 6623, SWE 6633, SWE 6723, SWE 6743, SWE 6763, and SWE 6883)	3-0-3	This course is designed for students to give a professional focus to their degree. The students work in designated teams under the supervision of the course instructor (a CSE faculty member), on a project of practical significance in software engineering. Each of the teams will deliver a final working product, generate a substantial final report, and give a final presentation on the project.

Surveying and Mapping

Prerequisite: MATH 1113	3-3-4	Use and care of engineers level, transit and tape; leveling, traversing, stadia, contours, horizontal and vertical field layouts for buildings; reading and interpretation of site survey maps. (No credit for CET or Surveying and Mapping majors.)
Prerequisites: CET 2160, MATH 1113	3-3-4	Angles, distances, elevations; horizontal and vertical location using total station and level; simple horizontal and vertical curves; contouring; introduction to the Global Positioning System; introductory coordinate computations; simple topographic survey project.

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SURV 3320

	3-3-4	Continuation of GIS I; data collection techniques; advanced systems and macro programming.

Prerequisite: SURV 3421

	2-6-4	Emphasis placed on production s

Prerequisite: SURV 3222

Prerequisites: TCOM 2010; either TCOM 2020 or 2030 or concurrently	3-0-3	A study of the foundations of multimedia including theory, planning, scripting, storyboarding, and production. Students will submit research work on the theory of multimedia.
Prerequisite: TCOM 2010; either TCOM 2020 or 2030 or concurrently	3-0-3	Introduction to the process and principles of writing manuals, with emphasis on user manuals. Students write and produce all or part of a manual. Course includes study of structured writing. Course also includes discussion of (1) production issues and (2) theory relevant to designing usable, readable manuals.
Prerequisite: TCOM 2010; either TCOM 2020 or 2030 or concurrently	3-0-3	Study of the theory and practice of group interaction and teamwork as it applies to group process. Focuses on such topics as the function of roles in groups, conflict resolution, leadership in the small group, gender differences, listening and negotiation skills, and managing meetings. A collaborative project and workshop activities reinforce these principles.

Prerequisite: Senior standing, completion of 24 hours of TCOM courses.	3-0-3	Course examines portfolios as professional tools for technical communicators. The course includes portfolio and writing theory along with a collaborative workshop environment. Students develop a professional portfolio of sample documents based on course project, internship experiences, and/or work history. In addition, students write a reflective paper examining their growth and maturity as technical communicators. Interviewing techniques, resume writing, and the job search process are included in the course.

Information Design and Communication Graduate

	3-0-3	Overview of technical writing and editing. Emphasis on drafting and editing many documents that reflect the variety of writing done in the field of technical communication. Both experienced and inexperienced writers will benefit from this course, which must be taken the first semester of enrollment in the master's program.
Prerequisite or Co-Requisites: IDC 6001, IDC 6030	3-0-3	Study of the main design elements in technical communication, with emphasis on theoretical underpinnings and research. Provides an introduction to research methodologies that flow largely from practical issues related to information design. Requirements include a report on document design that demonstrates solid application of theoretical principles. Should be taken as soon as possible after admission.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course examines the responsibilities of an editor, including the skills and talents necessary to become a successful editor. Focus is on developmental editing, copyediting, editing graphics, and editing electronic documents. Also covers (a) interpersonal skills relative to editing, (b) organizational aspects of editing, and (c) production issues such as selecting paper stock, bidding jobs, binding documents, and inspecting presses on site for major jobs.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course prepares students to write a journal-quality article or a master's thesis. Introduces methods of quantitative and qualitative inquiry used in technical communication research, develops the skills for conducting a search and review of literature, teaches techniques of collecting and analyzock, 7) interpersonal skills

Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	A study of the foundations of multimedia including theory, planning, scripting, storyboarding, and production. Students will submit research work on the theory of multimedia. This course is double-listed for both undergraduate and graduate students. Graduate students will be required to complete additional work that emphasizes theory and research over application. Thus they must demonstrate a higher level of learning than undergraduates. MSTPC students who took TCOM 4045 Foundations of Multimedia as undergraduates may not count IDC 6045 for credit toward their graduate degree.
Prerequisite: IDC 6001, IDC 6030, IDC 6045; Co- or Pre-Requisite: IDC 6002	3-0-3	Study of specific applications of multimedia in technical and professional communication, education, marketing, and training, including authoring for Web pages. Projects emphasize hypermedia, hyperlinks, and interactive design for use in technical manuals, proposals, informational kiosks, marketing presentations, resumes, and electronic information systems.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Survey of the major issues that affect technical communication from a global perspective. Topics may include cultural influences on communication, challenges associated with technical translation, differing uses of graphics, communicating within multinational organizations, and theoretical issues related to international communication.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Introduction to the process and principles of writing manuals, with emphasis on user manuals. Students write and produce all or part of a manual. Course includes study of structured writing. Course also includes discussion of (1) production issues and (2) theory relevant to designing usable and readable manuals. This course is double-listed for both undergraduate and graduate students. Graduate students will be required to complete additional work that emphasizes theory and research over application. Thus they must demonstrate a higher level of learning than undergraduates. MSTPC students who took TCOM 4070 User Documentation as undergraduates may not count IDC 6070 for credit toward their graduate degree.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course designed to enhance students' presentation skills in a technical and business environment. Students practice various speech types such as briefings, interviews, formal technical presentations, panels, and impromptu presentations. Course also includes an overview of communication theory as it applies to oral presentations.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course examines the scope of medical communication, with emphasis on opportunities for technical communication professionals. Students will analyze, edit, and revise various medical document types, such as medical research abstracts, patient education materials, professional medical training documents, medical advertisements, and pharmaceutical package inserts. Students will independently study medical terminology and develop a portfolio of medical writing samples.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course introduces and applies the literature, tools, and techniques of professional project management. Includes major online course elements. Students will choose a project in technical communication and apply the major phases of project management: definition, planning, execution, and closing. Topics of emphasis include communication skills, project management software tools, and project team dynamics.

Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002 odst 0 egc (3f 0 0435 Tw (6110) T02and techni90 TD -0.pd apply tcon Ttply turse 5 0yz Tc a t87 ject Tc1258 Tperf 0m project man07w (pac

Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Study of the design and development of effective online Help systems and web-based documentation. Presents principles of usable online information design, task-based user analysis, and advanced tools and technologies for developing and delivering online information products, including single-sourcing, SGML, and XML. Students design and develop an HTML Help system. Instruction will be provided in the use of RoboHelp and alternative HTML Help authoring tools. Students entering the course without basic HTML knowledge will be expected to learn the basics of HTML on their own. This course is double-listed for both undergraduate and graduate students. Graduate students will be required to complete additional work that emphasizes theory and research over application. Thus they must demonstrate a higher level of learning than undergraduates.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Advanced theoretical study and application of best practices for the design and delivery of information on the World Wide Web. Students learn the fundamentals of HTML, use of HTML authoring tools, web content writing and editing, page layout, design of web graphics and multimedia elements, and website architecture and content management. Students work individually and in teams to design and develop websites. Some classroom instruction is provided in basic HTML and XHTML coding, the composition of cascading style sheets, and the use of DreamWeaver and FrontPage. Course includes a theory and research component.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course introduces and applies the literature, tools, and techniques of systematic instructional design. Includes substantial online course elements. Students will study major models of instructional design and apply them to develop and refine a unit of instruction. The course addresses the literature and theory underlying formal instructional development -- particularly cognitive psychology – and provides practice in goal analysis, team instructional development, formative evaluation, and evaluation.
Prerequisite: TCOM 6001 and TCOM 6030; Co- or Pre-Requisite: TCOM 6002	3-0-3	Course introduces and applies the literature, tools, and techniques of performance technology. The performance technologist analyzes and solves human productivity and efficiency problems in the workplace. Students will examine major models of performance improvement, and adapt and apply them to simulated corporate productivity challenges, and to real opportunities in their own work experience. This highly participatory course is a natural complement to graduate courses in instructional design and instructional technology.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course examines those aspects of technical communication that include advertising, brochures, catalogs, press releases, and other means of marketing in both print and other media. Includes analysis of web pages and the uses of the World Wide Web for marketing purposes.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Course introduces rhetoric as the relationship between thought and expression. Explores connections between rhetoric and writing, between a public act and a personal thinking process, by examining classical and contemporary accounts of rhetorical history and theory. Students apply theory to their own writing as they explore the relationship between writers, readers, and subjects and the range of options available to communicators. This course is double-listed for both undergraduate and graduate students. Graduate students will be required to complete additional work that emphasizes theory and research over application. Thus they must demonstrate a higher level of learning than undergraduates.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	This course examines writing style in the workplace. Topics include grammar, paragraphs, sentence structure, diction, spelling, and revision, as well as some larger issues surrounding style (persuasion, discourse communities, appropriateness, tone, bias, ethos). The objective of the course is to make students better writers of technical prose by understanding how to make effective stylistic choices.

Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	Introduction to the role and use of video production for technical and professional communication. Topics include scripts, storyboards, shot selection, continuity, lighting, sound, in-camera editing, and fundamental post-production techniques. Students complete at least two assigned videos as individual or team projects. This course is double-listed for both undergraduate and graduate students. Graduate students will be required to complete additional work that emphasizes theory and research over application. Thus they must demonstrate a higher level of learning than undergraduates. MSTPC students who took TCOM 4170 Video Production as undergraduates may not count IDC 6170 for credit toward their graduate degree.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	1 to 3 hours	A course on a special topic of Importance and relevance to the field of technical and professional communication not covered in the graduate curriculum. Offered when needed.
Prerequisite: IDC 6001 and IDC 6030; Co- or Pre-Requisite: IDC 6002	3-0-3	A directed study for a graduate student who wishes to pursue a special interest in technical and professional communication not covered in the curriculum. The student submits to the IDC Graduate Program Director a proposal that clearly defines the course of study and the benefits to be obtained. The proposal must be submitted at least one semester prior to registration for independent study hours. Once the proposal is approved, the student is assigned a faculty advisor and registers for 3 credit hours.
Prerequisites: Completion of 27 hours of IDC coursework or consent of the department chair, confirmation of approved internship	1 to 3 hours	Course provides student with hands-on experience in technical communication in a professional environment. Work should be typical of technical communicators. Work may be either an extended project or a variety of shorter assignments. (Total of 6 hours of Master's Internship required.)
Prerequisites: Completion of 30 hours of IDC coursework or consent of the department chair, approval of thesis proposal	1 to 3 hours	Intensive research project that results in a formal written thesis. Usually flows from an area of interest discovered by the student in early stages of the Technical and Professional Communication program or through work experience. Thesis work will be closely supervised by the student's advisor. Students may enroll for a maximum of 3 hours per term for thesis credit, with exceptions at the discretion of the department chair. (Total of 6 hours of Master's Thesis required.)

Southern Polytechnic State University
Senior Administration

Ph.D., Princeton
M. A., Princeton
M. A., State University of New York at Binghamton
B. S., Dickinson College

M.B.A, Samford University
B. A., Howard College (Samford University)

M. S., Georgia College
B. A., West Georgia College

Ed.D., University of Kansas
M.Ed., University of Kansas
B.S.Ed., Pittsburg State University

Ph.D., Georgia Institute of Technology
M. S., Vanderbilt University
B. S., West Virginia University Institute of Technology

M. S., Cleveland State University
B.I.E, Cleveland State University

Faculty of the School of Architecture, Civil Engineering Technology, and Construction

Dr. Wilson C. Barnes - Dean

Architecture Faculty

Dr. Curtis Sartor, Department Chair

Carpenter, William J. Associate Professor	M. Arch.,Virginia Polytechnic B. Arch., Mississippi State University F.A.I.A., Reg. Arch N.C.A.R.B. Certificate Holder
Cole, C. Richard Professor	M. Arch., Georgia Institute of Technology B.S., Georgia Institute of Technology A.I.A., N.C.A.R.B. Certificate Holder Reg. Arch.
Couch, Virginia Assistant Professor	M.Arch, Yale School of Architecture B.S., Georgia Institute of Technology
Farooq, Ameen Associate Professor	Ph.D., Georgia Institute of Technology M. Arch. University of Idaho B. Arch., University of Idaho B. of Environmental Science, University of Punjab A.P.A., A.I.A.,Reg. Architect.
Itzkowitz, Howard F. Professor	M. Arch.,Cranbrook Academy of Art B. Arch., Rice University Arch. Cert., Cooper Union Reg. Arch.
Kaufman, Harry F. Professor	M. Arch., Harvard University B.C.E., Villanova University Reg. Arch., A.I. A., N.C.A.R.B. Certificate Holder P.E., Indiana, Georgia
Rizzuto, Anthony Assistant Professor	M. Arch., University of Illinois, BA of Design, University of Florida Assoc A.I.A.
Sargent, Kenneth L., Jr. Assistant Professor	Master of Construction Management, Southern Polytechnic State University B.E.T., Southern Polytechnic State University Reg. Arch.
Sartor, Curtis J., Department Chair and Associate Professor	Ph.D., The Union Institute and University, M. Arch, Tuskegee University BA. Architecture, Tuskegee University Reg. Arch., N.O.M.A.
Sobti, Manu F. Assistant Professor	Ph.D., Georgia Institute of Technology M.Arch, Massachusetts Institute of Technology B.S., School of Architecture – CEPT – Ahmedabad, India

Architecture Faculty Emeriti

Fausett, James G., Professor Emeritus, Architecture
Muller, Edward J., Professor Emeritus, Architectural Engineering Technology
Myatt, Robert L., Jr., Head and Professor Emeritus, Architectural Engineering Technology
Vaughn, Wilton W., Professor Emeritus, Architectural Engineering Technology

Civil Engineering Technology Faculty

Prof. Tim Zeigler, Department Chair

Beadles, Samuel J. P. Professor	M.S.C.E., University of California at Los Angeles B.S.C.E., Northern Arizona University P.E., Georgia
Currin, Thomas R.	Ph.D., University of Connecticut

Professor	M.C.E., North Carolina State University B.S.C.E., Southeastern Massachusetts University P.E., Connecticut, Georgia, Massachusetts, Kentucky
Mesbahi, Mehrdad Associate Professor	M.S.C.E., University of Alabama B.S.C.E., Clemson University P.E., Georgia, Alabama, South Carolina, Florida, North Carolina
Orlandella, Michael R. Associate Professor	M.S., Michigan State University B.S., Michigan State University A.C.E., Mohawk Valley Community College
Ortiz, Carlos A. Associate Professor	Ph.D., Vanderbilt University M.E., University of Louisville B.S., Universidad del Valle
Wilson, Matthew M. Associate Professor	M.S., University of Florida B.S., Southern Polytechnic State University R.L.S., Georgia
Zeigler, Timothy W., Associate Professor and Department Chair	M.S., University of Illinois, Urbana B.S., University of Illinois, Urbana P.E., Illinois

Civil Engineering Technology Faculty Emeriti

Bennett, David M., Professor Emeritus
Holladay, Charles T., Head and Professor Emeritus
Troemel, Hans A., Associate Professor, Emeritus

Construction Faculty

Dr. Khalid Siddiqi, Department Chair

Banik, Gouranga C. Associate Professor	Ph.D., Iowa State University M.S., University of Manchester (UK) M.S., Bangladesh University of Engineering and Technology B.S., Bangladesh University of Engineering and Technology
Barnes, Wilson C. Professor	Ph.D., University of Central England M. Arch., Harvard University M.A., University of Pennsylvania B.S., United States Military Academy Reg. Arch, A.I.A., N.C.A.R.B., A.I.C., F.C.I.O.B.
El-Itr, Zuhair Associate Professor	Ph.D., Georgia Institute of Technology M.S.C.E., Georgia Institute of Technology B.S.C.E., American University-Beirut
Mench, John Instructor	Ph.D. California Coast University M.B.A. Ohio University B.S.E.E. University of South Carolina P.E. Ohio & Georgia
Moore, Brian Assistant professor	Ph.D., M.S. Georgia Institute of Technology B.S. Marine Engineering, Maine Maritime Academy

Pierce, David R. Professor	M.B.A. University of West Florida B.S. Virginia Polytechnic State University
Siddiqi, Khalid M. Department Chair and Associate Professor	Ph.D., Georgia Institute of Technology M.S., Asian Institute of Technology B.S., University of Engineering and Technology, Karachi, Pakistan
Toy, G. Arlan Professor	Ph.D., University of Florida M.B.C., University of Florida M.A.T., Rollins College B.S.B.A., University of Florida

Construction Faculty Emeriti

Hall, Allan J., Professor Emeritus

Faculty of the School of Arts and Sciences
Dr. Alan Gabrielli - Dean

Social and International Studies Faculty

Dr. LaJuana Cochrane, Department Chair

Bennett, Richard Associate Professor and Director International Programs	Ph.D., Florida State University M.Div., Asbury Theological Seminary B.S., Stevens Institute of Technology
Churella, Albert J. Assistant Professor	Ph.D., The Ohio State University M.A., The Ohio State University B.A., Haverford College
Cochrane, J. LaJuana Associate Professor and Department Chair	Ph.D., University of Alabama M.A., University of Alabama B.A., Fisk University
Newell, Julie Associate Professor	Ph.D., University of Wisconsin-Madison M.A., University of Wisconsin-Madison B.S., Boise State University B.A., Boise State University
Nuhfer-Halten, Bernice Associate Professor	Ph.D., Florida State University M.A., Middlebury College, Madrid B.A., Florida State University A.A., Palm Beach Junior College

Biology, Chemistry, and Physics Faculty

Department Chair

Beach, Michael B. Assistant Professor	Ph.D., University at Albany B.S., University at Albany
Burnett, William C., Jr. Associate Professor	Ph.D., University of Georgia M.S., Auburn University B.S., Auburn University
Duff, Jack L. Lecturer	M.S., Georgia Institute of Technology B.S. University of West Florida at Pensacola
Gabrielli, Alan M. Professor and Dean	Ph.D., University of South Carolina B.S., Francis Marion College
Lawrence, Dana C Assistant Professor	Ph.D., Florida State University at Tallahassee B.A., Jacksonville University at Jacksonville, Florida
Patrick, Russell S Professor aTj 0 Tc -0.252 Tw 49.25 0 Td ( )Tj 0-9.25 010.5 Td ( )Tj 0.04849Tc -0.29069Tw 117.75 21 Td (Ph.D., UDrexl Bniversity)Tj 0 Tc	P.S., AClark Atan taUniversity

Haimes -

Faculty of the School of Computing and Software Engineering
Dr. Michael Murphy - Dean

Computer Science Faculty

Dr. Venu Dasigi , Department Chair

Bobbie, Patrick O. Professor	Ph.D., University of Southwestern Louisiana M.S., Marquette University B.S., University of Science & Technology, Ghana
Dasigi, Venu Professor and Chair of Computer Science	Ph.D., University of Maryland M.S., University of Maryland M.E.E., Philips International Institute of Technological Studies B.E., Andhra University
Faruque, Abdullah Associate Professor	Ph.D., Clarkson University M.S. EE, B.S. EE, Bangladesh University of Engineering & Technology.
Guzman, Juan Carlos Associate Professor and Coordinator of Graduate CS Programs	Ph.D., Yale University M.S. M.Phil., Yale University M.S., B.S., Univertidad Simon Bolivar [Venezuela]
Harbort, Bob Professor	Ph.D., Emory University M.S., Georgia Institute of Technology B.S., Emory University P.E., Georgia
Hung, Chih-Cheng Professor	Ph.D., University of Alabama-Huntsville M.S., University of Alabama-Huntsville B.S., Soochow University
Karam, Orlando A. Assistant Professor	Ph.D., Tulane University M.S., Tulane University B.S., University of Yucatan [Mexico]
Morrison, Briana B. Assistant Professor	M.S., Southern Polytechnic State University B.S., Tulane University
Murphy, Michael G. Professor and Dean, School of CS and SWE	Ph.D., Louisiana State University M.S., Louisiana State University B.A., Florida State University
Roth, Patricia H. Instructor	M.S.S.W.E., Southern Polytechnic State University B.A., Dunbarton College of Holy Cross
Rupf, John A. Associate Professor	Ph.D., Purdue University E.E., Massachusetts Institute of Technology M.S., Massachusetts Institute of Technology M.S., Southern Polytechnic State University B.S., University of Kansas P.E., Kansas
Schroeder, Ronald N. Associate Professor and Coordinator of Undergraduate CS Programs	

Information Technology Faculty

Department Chair

Halstead-Nussloch Richard Professor	Ph.D., University of Michigan B.A., Macalester College
Hartfield, Fred D., Jr. Associate Professor	Ed.S., University of Georgia M.S., Atlanta University B.A., Morehouse College
Rutherfoord, Rebecca Professor	Ed.D., Indiana State University M.S., Southern Polytechnic State University M.S., Indiana State University B.S., Indiana State University CDP

Faculty of the School of Engineering Technology and Management

Dr. C. Wayne Unsell - Dean

Electrical and Computer Engineering Technology Faculty

Charles Bachman, Department Chair

Asgill, Austin B. Associate Professor	Ph.D., University of South Florida M.Sc., University of Aston in Birmingham M.B.A., Florida State University B.Eng.(Hons), Fourah-Bay College, University of Sierra Leone P.E., Florida.
Bachman, Charles L. Professor and Department Chair	M.Engr., Pennsylvania State University M.S.E.E., University of Pittsburgh B.S.E.E., Pennsylvania State University P.E., Pennsylvania
Crimm, Lance C. Associate Professor	M.S.E.E., Georgia Institute of Technology B.E.E., Georgia Institute of Technology
Davis, Kim Associate Professor	M.S.E.T., Rochester Institute of Technology B.E.E.T., Southern Polytechnic State University P.E., California
Fallon, Thomas Associate Professor	Ph.D., Georgia State University M.S.E.E., Georgia Institute of Technology B.S.E.E., Georgia Institute of Technology
Frinzi, Pamela S. Associate Professor	M.S., Southern Polytechnic State University B.S., Southern Polytechnic State University
Hodges, William R. Associate Professor	M.S.E.E., Georgia Institute of Technology B.E.E., Georgia Institute of Technology P.E., California
Jenkins, L. Brent Assistant Professor	M.S.E.E., Georgia Institute of Technology B.S.E.E., University of Missouri – Rolla
Larisch, Scott Assistant Professor	M.S.E.E., University of Southern California B.S.E.E., University of Colorado
Thain, Walter E., Jr. Associate Professor	Ph.D., Georgia Institute of Technology M.S.E.E., Georgia Institute of Technology B.E.E., GIT
Tippens, Scott J. Associate Professor	M.S.E.E., Georgia Institute of Technology B.E.E., Georgia Institute of Technology
Wagner, Jeff H. Assistant Professor	M.S.E.E., Georgia Institute of Technology B.S.E.E., Georgia Institute of Technology
Wilcox, Daren R. Assistant Professor	M.S.E.E., University of Central Florida B.S.E.E., University of Central Florida
Zia, Omar Professor	Ph.D., Warsaw Technical University M.S.E.E., Warsaw Technical University B.S.E.E., Warsaw Technical University P.E., California, Oregon, Georgia

Electrical and Computer Engineering Technology Faculty Emeriti

Burton, Walter E., Professor Emeritus
Castellucis, Richard L. Professor Emeritus
Carter, Robert C., Professor Emeritus
Cowan, Clifford W., Professor Emeritus
Dreyer, Robert N., Professor Emeritus
Keown, John L., Professor Emeritus
Summers, David E., Professor Emeritus
Wojnowiak, Paul, Professor Emeritus
Wilson, Julian, Professor Emeritus

Industrial Engineering Technology Faculty

David Caudill, Interim Department Chair

Industrial Engineering Technology Faculty Emeriti

Bannerman, James W., Professor Emeritus
Brooks, Glen E., Professor Emeritus
Carmichael, Thomas H., Professor Emeritus
Franklin, Patricia S., Professor Emeritus
Hamrick, Janes, Professor Emeritus
McClure, Hoyt L., Professor Emeritus
McGuire, Richard W., Professor Emeritus
McPherson, Jack, Professor Emeritus
Stephens, Kenneth S., Professor Emeritus
Wimberly, Charles A., Professor Emeritus

Management Faculty

Dr. Muhammad Obeidat, Department Chair

Davis, Sidney Professor	Ph.D., Georgia State University M.B.A., Georgia State University B.I.E., Georgia Institute of Technology P.E., Georgia
Obeidat, Muhammad A. Professor & Department Chair	Ph.D., Illinois Institute of Technology M.S., Western Michigan University B.S., Yarmouk University
Richardson, Ronny Professor	Ph.D., Georgia State University M.S., Georgia State University M.B.A., Georgia State University B.S., University of Southern Mississippi
Vasa-Sideris, Sandra Associate Professor	Ph.D., Georgia State University M.B.A., Georgia State University M.A., University of Tennessee B.A., University of Tennessee
Warsi, T. A. Associate Professor	M.B.A., Atlanta University M.A., Gorakhpur University B.A., Agra University B.Ed., Gorakhpur University
Yancy, Robert J. Professor	Ph.D., Northwestern University M.B.A., Atlanta University B.A., Morehouse College

Mechanical Engineering Technology Faculty

John Sweigart, Department Chair

Allen, Robert Glenn Associate Professor	M.S., Southern Polytechnic State University B.M.E.T., Southern Polytechnic State University
Conrey, Gregory M. Associate Professor	M.Ed., Georgia State University B.S., Eastern Kentucky University
Horton, Donald D. Associate Professor	M.S.M.E., Michigan Technological University B.S.M.E., Michigan Technological University P.E., Georgia
Pearce, Britt K. Professor	Ph.D., Georgia Institute of Technology M.S.M.E., Georgia Institute of Technology B.S.M.E., Clemson University P.E., Texas
Russell, Norman A. Associate Professor	Ph.D., Institute of Paper Chemistry 5uTc 0 Tw -Td (5uTc 0 T6stry)Tj 0 T B

Library Faculty

Dr. Joyce Mills, Director

Mills, Joyce White Librarian-Associate Professor and Director	Ph.D., Florida State University D.A.S.L., Emory University M.S.L.S., University of Wisconsin B.A., Spelman College
Hall, Leigh McNichols Librarian-Assistant Professor	M.S.L.S., Clark Atlanta University B.A., University of Georgia
Ma, Yongli Librarian-Associate Professor and Assistant Director	M.L.I.S., University of South Carolina M.Ed., University of South Carolina B.A., Shanghai Foreign Languages Institute
Vincent, Steven F. Librarian-Associate Professor	M.A., Western Michigan University M.S.L., Western Michigan University A.B., University of Michigan
Chen, Li Librarian, Assistant Professor	M.L.I.S., University of Western Ontario B.A., Beijing Foreign Language University

Institutions of the University System of Georgia

Universities

Georgia Institute of Technology	Atlanta
Georgia State University	Atlanta
Medical College of Georgia	Augusta
University of Georgia	Athens

Regional Universities

Georgia Southern University	Statesboro
Valdosta State University	Valdosta

State Universities

Albany State University	Albany
Armstrong Atlantic State University	Savannah
Augusta State University	Augusta
Clayton College & State University	Morrow
Columbus State University	Columbus
Fort Valley State University	Fort Valley
Georgia College & State University	Milledgeville
Georgia Southwestern State University	Americus
Kennesaw State University	Marietta
North Georgia College & State University	Dahlonega
Savannah State University	Savannah
Southern Polytechnic State University	Marietta
State University of West Georgia	Carrollton

Associate Degree Colleges

Abraham Baldwin Agricultural College	Tifton
Atlanta Metropolitan College	Atlanta
Bainbridge College	Bainbridge
Coastal Georgia Community College	Brunswick
Dalton State College	Dalton
Darton College	Albany
East Georgia College	Swainsboro
Floyd College	Rome
Gainesville College	Gainesville
Georgia Perimeter College	Decatur
Gordon College	Barnesville
Macon State College	Macon
Middle Georgia College	Cochran
South Georgia College	Douglas
Waycross College	Waycross