Catalog Home

Undergraduate Academic Catalog
2013-2014

marketable and successful. We feel it is just as important that a Southern Polytechnic education also prepares students for the last job in their careers. Thus, our courses and programs are structured to enable men and women to adapt, grow, and continue to learn over the

Southern Polytechnic State University has an online Campus Directory available to contact offices on campus. This directory is available online at directory.spsu.edu.

Student Rules and Regulations

- • Construction Engineering, BS
- • Construction Management, BS
- • Electrical Engineering Technology, BS
- • Electrical Engineering, BS
- • Entrepreneurship Minor
- • Environmental Engineering Technology, BS
- • Environmental Science, B.S.
- • Industrial Engineering Technology, BS
- • Information Technology, BS
- • Information Technology, BS (Online) WebBSIT
- • International Business Minor
- • International Studies, BS
- • Marketing Minor
- • Mathematics, BS
- • Mechanical Engineering Technology, BS
- • Mechanical Engineering, BS
- • Mechatronics Engineering, BS
- • Physics, BS
- • Physics, Electrical Engineering Concentration, BS
- • Physics, Mechanical Engineering Concentration, BS
- • Physics, Teacher Education Concentration, BS
- • Political Science, BS
- • Psychology, BS
- • Software Engineering, BS
- • Structural Engineering Technology, BS
- • Surveying and Mapping, BS
- • Systems Engineering, BS
- • Technical Communication, BS
- • Telecommunications Engineering Technology, BS

Associate of Science Transfer Degree

- • General Studies, A.S.

Non-Degree

- • Accounting Minor
- • Aerospace Engineering Minor
- • Apparel and Textiles Minor
- • Architecture Minor
- • Biology Minor
- • Business Minor
- • Chemistry Minor
- • Computer Game Design and Development Minor
- • Computer Science Minor
- • Construction Minor
- • Engineering Design Graphics Minor
- • Environmental Science Minor
- • Finance Minor
- • Global Communication Minor

- • History Minor
- • Industrial Engineering Technology Minor
- • Information Technology Minor
- • International Studies Minor
- • Latin American Studies Minor
- • Leadership and Organizational Communication Minor
- • Logistics Minor
- • Management Information Systems minor
- • Management Minor
- • Management of Operations and Technology Minor
- • Manufacturing Engineering Technology Minor
- •

Falsification

Approval for admission is valid only for the term specified at the time of acceptance and does not imply that approval will be granted for a term not specified. The University reserves the right to withdraw admission prior to or following enrollment if the student becomes ineligible as determined by the standards of the University of the Board of Regents or if the student has falsified application materials.

Other Admission Requirements

SPSU reserves the right to require any applicant for admission to take appropriate standardized tests in order that the institution may have information bearing on the applicant's ability to pursue successfully the program of study for which the applicant wishes to enroll.

Special Students

Special students and all other students of classifications not covered in these policies shall be expected to meet all admission requirement -1 (i)innivpe-1 ( ) 2 (t) pra-0.21 (1 (eq) -5 (en-19)i) (-1 (eTT3/TT-1 (u) -1 (iP0.21 (1 (eq).24 0 r) -em)-19)i)ec 2 (b)

Unless otherwise noted for a specific admission type/category, the application file is complete and ready for review

Mathematics	4	Algebra I, Algebra II, and Geometry (Math 1, 2, and 3 for students who graduate from a Georgia Public School in 2012 or later) 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	4	Must include at least one lab course from Life Science and one lab course from the Physical Sciences
Social Science	3	Must include U.S. History and World History
Foreign Language	2	Must be in the same language and must emphasize speaking, listening, reading, and writing

Regular Freshman Admission Standards (Full Admission)

Regular freshmen are applicants who are recent high school graduates and who will be attending college for the first time.

SPSU's minimum requirements for admission as a regular freshman include the following:

- Graduation from
    - A regionally accredited high school
    - Or from a high school accredited by the Georgia Accreditation Commission
    - Or from a high school accredited by an approved University System of Georgia agency
    - Or from a public school under the authority of the State Department of Education
- Completion of the 17 required RHSC units.
- An academic High School GPA of at least a 2.5

Minimum scores on the ACT or SAT as follows:

Test	Minimum Score
SAT I Critical Reading	500
SAT I Math	500

ACT-

Limited Admission

The University System permits SPSU to admit a limited number of traditional freshmen each year who do not meet all the minimum requirements listed above, but whose records are sufficiently strong enough to show promise for success

SAT I – Total	1120

ACT English

- English Minimum required score of 530 on the SAT I Critical Reading (23 ACT-English)
- Social Studies Minimum required score of 530 on the SAT I Critical Reading (23 ACT-English)
- Mathematics Minimum required score of 530 on the SAT I Math (22 ACT-Math)

Students who do not necessarily meet all of the above criteria but who demonstrate very high academic abilities through their SAT performance may be permitted to enroll in appropriate college courses. Specifically:

- Students with a score of at least 700 on the SAT I Critical Reading (31 ACT-English) may be permitted to enroll in courses that require advanced verbal ability.
- Students with a score of at least 700 on the SAT I Math (31 ACT-Math) may be permitted to enroll in courses

- must provide course descriptions, syllabi, or other documentation on course content if requested by SPSU, and
- may be tested for proficiency in courses that were not USG Core courses.

The amount of transfer credit awarded can be limited by:

- Residency requirements defined in Academic Regulations
- The applicability of transferring courses to the chosen major
- Performance of the student during proficiency evaluations

Responsibility for transfer credit decisions at SPSU:

The Student has responsibility for providing complete and correct information (including course descriptions, syllabi, and other required documents).

The Chair of the department at SPSU in which the subject is taught has responsibility for determining whether transfer credit will be awarded.

The Chair of the student's major program of study has responsibility for determining whether transfer courses are applicable to that degree program.

The Registrar is responsible for determining restrictions and limits on amounts of transfer credit that can be granted.

! The institution at which the credit was earned:

- Must have been evaluated and endorsed/certified/accredited by a nationally-known evaluation agency, or have a well-established international reputation for quality instruction
- Must be offering degrees and course work at the college or university level

Technical College System of Georgia (TCSG) Transfer Program

Southern Polytechnic implemented a system-wide articulation with the Technical College System of Georgia (TCSG). This articulation will provide the opportunity for SPSU to offer a range of B.S. and B.A.S. level technological programs on a statewide basis, with the TCSG institutions as our partners. The initial set of programs were made

- Have not attended high school or college within the previous five years
- Have earned fewer than 30 transferable semester hours of credit
- Hold a high school diploma from an accredited secondary school or a GED certificate which satisfies the minimum requirement of the State of Georgia

Applicants eligible for review in this category are exempted from the SAT/ACT and Required High School Curriculum requirements; however, all other admission requirements must be met. These students will be required to take the COMPASS Exam and score 80 on the Reading, 74 on the Writing

- A non-refundable

- Academic performance as described by a certificate, diploma, or other documents generally equivalent to U.S. college preparatory studies
- Official or certified true copies of all secondary school records, with a certified English translation

(The University reserves the right to require foreign credentials to be evaluated by an approved professional foreign credential evaluation service at the expense of the applicant.)

English Proficiency

Students whose first language is not English and whose language of instruction throughout secondary school was not in English are required to demonstrate English proficiency.

Non-native speakers of English who:

- Transfer from institutions of higher education outside of the U.S. where English was not the language of instruction
- Have less than 30 semester hours of college credit

May be exempted from the SAT requirements; however, they must take the following tests with minimum scores as indicated:

Test	Minimum Score
Paper-based TOEFL or	550
Computer-based TOEFL or	213
Internet-based TOEFL	79
IELTS	6.5
AND	
COMPASS	80 Reading
	74 Writing
	43 Algebra

The COMPASS examination is administered on the campus of SPSU.

Academic Admissibility of Transfer Students Foreign Credentials

Students seeking to gain admissions as transfer students must have:

- Academic performance equivalent to a 2.0 transfer grade point average from all colleges/universities previously undertaken by the student
-

Additional Requirements for International Applicants

In addition to meeting the regular admission requirements, international applicants needing a student visa (F-1 or J-1) must complete a Financial Affidavit. The Financial Affidavit must show ability to meet the financial obligations of tuition, fees and living expenses before an I-20 or acceptance letter will be issued.

Current (less than one year old) letters of financial support must accompany the Financial Affidavit. Financial Affidavit forms are available in the Admission Office.

All international students must purchase medical insurance made available through Southern Polytechnic State University.

Sources for Test Scores and Required Forms

SAT I and II Tests	ACT Tests

Steps to Apply for Financial Aid and Cost of Attendance

Usually, step one in applying for financial aid is to fill out the Free Application for Federal Student Aid (FAFSA), which is available online at www.fafsa.ed.gov

Although applications are processed until all federal funds are expended, students who apply by the March 1st deadline have a greater chance of receiving financial aid than those who apply late.

Aid awarded to a student one year does not mean that he or she is eligible to receive aid in a subsequent year, unless the student continues to demonstrate need as defined by the U.S. Department of Education. An application, each year, is required to continue to receive financial aid.

Information concerning financial aid may be obtained by writing to:

Director of Financial Aid
Southern Polytechnic State University

Class	Dependent	Independent
Freshman	$5,500	$9,500

Failure to pay tuition and fees by the published deadline date can cause the cancellation of your registration.

Payment of fees and other charges may be made with:

- Cash

International Student Health Insurance

Based on the guidelines provided by the American College Health Association and NAFSA: the Association of International Educators, Southern Polytechnic State University requires international students on F-1 and J-1 visas to purchase the endorsed SPSU International Student Insurance policy. Payment of this fee is mandatory and should be paid directly to the Business Of

Southern Polytechnic State University is a member of the National Association of Intercollegiate Athletics (NAIA) and the Southern States Athletic Conference (SSAC). The University competes in four intercollegiate sports, including men's soccer in the fall, men's and women's basketball during the winter, and baseball in the spring. All four of the Southern Polytechnic teams have enjoyed much success over the years. The squads use the nickname "Hornets" and the school colors are forest green, white and black.

Athletic Facilities

Southern Polytechnic features several on-

Part of the career development process involves increasing self-understanding in such areas as values, life goals, interests, and skills. 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.

Academic concerns center on more effective time management, study skills and dealing with test anxiety. Counselors can assist students in identifying deficiencies in these areas to make the overall academic experience more successful. Many students find university work more difficult than they expected and find that it strains their abilities.

Counselors can assist students in developing skills to manage stress, overcome test anxiety, improve test-taking

Southern Polytechnic State University offers it's students the opportunity to gain valuable work experience directly related to their academic majors through a University sponsored experiential education program. Students interested in either program should attend an orientation session or should complete the online orientation session (dates and links posted on the Career and Counseling Center's website).

Benefits of participating in Cooperative Education or an Internship include:

- Providing career related hands-on work experience
- Earning a competitive salary for school and tuition expenses
- Learning the company culture
- Networking with professionals in your field
- Helping get your foot in-the-door for full-time employment
- Developing self-confidence
- Establishing valuable contacts for letters and references
- Gaining practical experience in the work environment
- Helps students in their career decision making process
- Provides substantial support for education expenses

Cooperative Education (Co-op)

Co-

Services, the bookstore, the Grill, and the Post Office. There are also many spaces within the student center that are available for student groups to reserve for events and meetings.

For more information about the Student Center go to www.spsu.edu/studentcenter

Student Health Services

The school nurse, who is on duty Monday through Friday in the clinic located in the Recreation and Wellness Center, provides limited outpatient services for minor illnesses and injuries. If further treatment is necessary, she will refer the student to an urgent care facility located near the campus. Due to the limits on the health services provided by Southern Polytechnic State University, each student is encouraged to have adequate heae 9ser u toaclieq

Student Center in rooms A-184 & A-185. The tutoring schedule can be viewed online at the ATTIC's website at www.spsu.edu/attic/tutoring.

* Please Note: The schedule may vary from semester to semester.

Testing

The ATTIC administers the following tests:

Math Advisory Test (MAT)

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Introduction and Student Responsibility

Grading System

Grades

The following letter grades are used to specify the level of performance in academic courses and are computed into the grade point averages:

Grade	Definition

IP	In Progress
	The In Progess grade indicates that credit has not been given in a course that requires a continuation of work beyond the term for which the student signed up for the course. This symbol cannot be substituted for an Incomplete grade.
K	Credit by Exam
	The K grade indicates that a student was given credit for the course via a credit by examination program approved by the institution's faculty (CLEP, AP, etc.).

S   Satisfactory

Credit earned at other institutions, credit by examination, credits for which quality points are not assigned, institutional credit courses, and courses otherwise excluded by institutional policy are not considered when calculating the cumulative grade point average for graduation purposes.

Grade	Quality Points Assigned
A	Four
B	Three
C	Two
D	One

A student may not use the same course more than once in satisfying graduation requirements.

GPAs calculated for financial aid and other purposes may count all attempts.

Credit for Duplicate Courses or Dual Credit

Credit may not be awarded for the same course twice or for courses deemed so similar as to be considered the same. For example if a student completes PHYS 1111 and PHYS 1111L (Trigonometry based Physics I), and then takes PHYS 2211 and PHYS 2211L (Calculus based Physics I), only one course may be counted as hours earned. Only one course may be used for graduation purposes.

Exclusion of Previous Major Courses from the Institutional GPA

Students may request that certain courses taken for a previous major be excluded for graduation GPA and hours purposes. Students should discuss this action with their program advisor first to determine its benefit potential. All courses that were unique to the excluded program will be excluded under this rule.

For example, if a mathematics course is part of the degree requirements for a management degree, and the student requests exclusion, the mathematics course would be excluded along with all management and related courses.

In order to qualify for previous major course exclusion, the student must have officially declared the previous major at

Students may register for a maximum of 18 hours during fall and spring semesters and 12 hours during the summer. Academic department chairs can authorize up to 21 hours in fall and spring and up to 13 hours in summer. Requests for additional hours beyond what is administratively authorized must be requested as a Petition to the Faculty and approved by the Undergraduate Student Status committee.

Students who are on academic probation may only register for 13 hours.

Auditing Courses

Auditing a course gives a student the opportunity to attend a class without penalty or risk. The student must declare an audit status before or during the drop/add period for the term in the Registrar's office. Changes in audit status cannot be made after drop/add closes.

Courses taken under the audit status carry the same tuition and fees as courses taken in the usual way. Audit courses count at full value in determining the number of credit hours for which the student is enrolled.

To remain continuously enrolled, a student must not have an absence of two or more consecutive terms of matriculation at Southern Polytechnic, including summer semester. Continuous enrollment is required in order to

opportunities for enriched educational programs and experiences by permitting students at any ARCHE institution to take courses at any other member institution. A student may cross-register only for:

1. Department Chair of the faculty member
2. School Dean, as appropriate
3. Vice President for Academic Affairs (if necessary)

If a student is removed from a course under this provision, a grade of F will result. A grade of F issued under these

General Requirements

An undergraduate student is eli(e) 4 3 (a)6ble for graduation when he or she has:

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Minors require 15-18 hours of credit and nine hours at the upper division level (3xxx-4xxx) in a specified minor area. Six hours of the upper division requirement must be completed at Southern Polytechnic. Transfer credit may be used to satisfy the other requirements for the minor.

Residency Requirement (Hours Earned in Residence)

Students who wish to earn a degree from Southern Polytechnic State University must have completed 25% of the major required hours as course work in residence at the institution. "In residence" is defined as courses for which a student has registered at SPSU.

Courses for which the student registers at SPSU including cross-registration are considered to be in residence.

Credit by Examination

Awarded at the Discretion of the Department Chair

Student evaluation by standardized and/or program examinations may be used at the discretion of the Department Chair as a basis for awarding credit for some courses. These evaluations are available only to currently enrolled students. A fee will be charged before the evaluation.

Learning Goal B: Institutional Options

Students will critically analyze the role in and impact of science and technology on society.

Students will demonstrate an ability to analyze and interpret oral and written arguments and materials.

Listed below are Southern Polytechnic State University core-curriculum courses and the credit hours for those courses.

Learning Goal A1: Communication Outcomes

Both courses are required.

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits

Area Total: 6 Credits

Learning Goal A2: Quantitative Outcomes

One course is required. See your academic advisor for information regarding course selection.

- MATH 1111 - College Algebra 3 Credits
- MATH 1113 - Pre-calculus 4 Credits
- MATH 2253 - Calculus I 4 Credits

Area Total: 3-4 Credits

Learning Goal B: Institutional Options

Both courses are required.

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area Total: 4 Credits

Learning Goal C: Humanities, Fine Arts and Ethics

Two courses are required. Take one course from the group Literature of the World and one course from Art and Culture of the World.

Literature of the World

Take one course from this group.

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits

- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1

- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits

Behavioral Science Perspectives Group

Take one course from this group.

- ECON 1101 - Introduction to Economics 3 Credits
- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

Global Perspectives Group

Take one course from this group. This course will satisfy the Global Perspectives overlay requirement as well.

- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- POLS 2401 - Global Issues 3 Credits
- RELG 1200 - World Religion 3 Credits

Area Total: 12 Credits

Area F: Courses Related to the Major Program of Study

Eighteen credits are required. This Area is made of lower division courses (numbered below 3000) that are related to the program of study. Courses in this Area are prerequisites to major courses at higher levels. See your academic advisor or your academic department for the required courses in this area.

NOTE: Additional hours from Areas A and D may carry over to Area F or general degree requirements.

Area Total: 18 Credits

Learning Goal I: US Perspectives

One course is required. The course used in the American Perspectives group of Area E may be used for this requirement as well.

- HIST 2111 - United States Histos 0.s 0 2 27 (s) 4 (e) 4 (s) 4 ( )n̊ C(͏g)4 (8)T̥d./TT6.0 1 Tf ()3 (r) Td 0 0.24 90 370.08 c

Learning Goal II: Global Perspectives

One course is required. The course used in the Global Perspectives group of Area E may be used for this requirement as well.

- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- POLS 2401 - Global Issues 3

Vision and Mission

The mission of the Architecture Department is to expand and extend the University's mission into the realm of Architecture, preparing students for professional practice in the design, planning, development and stewardship of the built environment. The Architecture Program fosters invention, creativity and craft through hands-on exploration that is the foundation of technological innovation. Moreo

Pegah Zamani   *Assistant Professor*

Departmental Staff

Cathy Smith   *Administrative Assistant*

Mary Neely   *School of ACM Advisor*

David Easterwood   *Media and Digital Resources Supervisor*

Dave Peeples   *Architecture Wood Shop, Digital Fabrication Lab, and Building Operations Supervisor*

NAAB Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture and the Doctor of Architecture. A program may be granted a 6-year, 3-year or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of

requirements. Students complete a major in a Program to be awarded with a Minor in Architecture. Minor in Architecture will not be substituted with Certificate in Architectural Studies. All studio and lecture courses must be passed with a minimum grade of "C". All studios should be taken in sequence.

Architecture Minor

- DFN 1001 - Design Foundation I 4 Credits
- DFN 1002 - Design Foundation II 4 Credits
- DFN 2003 - Design Foundation III 4 Credits
- DFN 2004 - Design Foundation IV 4 Credits
- DFN 1241 - Design Communication I 2 Credits
- DFN 2242 - Design Communication II 2 Credits
- DFN 2311 - Environmental Tech I -Systems Selection and Materials 3 Credits
- DFN 2112 - Architecture Culture II - The Renaissance through 1850 3 Credits
- DFN 2211 - Architecture Structures I - Introduction to Structures 3 Credits

Minor Program Total: 29

Bachelor of Architecture

[5 Year Professional Degree]

Requirements

- Area E Group 4 Cultures and Societies, One Course [See ARCH Matrix] 3 Credits

Design Foundation

- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- DFN 1000 - Orientation to Architecture (Summer Design Workshop) 2 Credits
- DFN 1001 - Design Foundation I 4 Credits
- DFN 1002 - Design Foundation II 4 Credits
- DFN 1241 - Design Communication I 2 Credits
- DFN 2003 - Design Foundation III 4 Credits
- DFN 2004 - Design Foundation IV 4 Credits
- DFN 1111 - Architecture Culture I: Early Civilizations & Medieval 3 Credits
- DFN 2112 - Architecture Culture II - The Renaissance through 1850 3 Credits
- DFN 2211 - Architecture Structures I - Introduction to Structures 3 Credits
- DFN 2311 - Environmental Tech I -Systems Selection and Materials 3 Credits
- DFN 2242 - Design Communication II 2 Credits

Architecture

- ARCH 3011 - Architecture Studio I 4 Credits
- ARCH 3012 - Architecture Studio II 4 Credits
- ARCH 3113 - Architecture Culture III - 1850 through 1945 3 Credits
- ARCH 3116 - Urban Planning and Design Theory 3 Credits
- ARCH 3211 - Architecture Structures II: Steel and Wood 4 Credits
- ARCH 3212 - Architecture Structures III: Concrete and Lateral Loads 3 Credits
- ARCH 3313 - Environmental Technology II: Human Comfort, Sustainability and HVAC Systems: 3 Credits
- ARCH 3314 - Environmental Technology III: Natural & Artificial Lighting, Electrical Systems & Vertical Circulation: 3 Credits
- ARCH 4013 - Architecture Studio III 4 Credits
- ARCH 4014 - Architecture Studio IV 4 Credits
- ARCH 4114 - Architecture Cultures IV: 1945-Current 3 Credits
- ARCH 4224 - Environmental Technology IV: Codes and Technical Documentation 3 Credits
- ARCH 4411 - Design Cost Control 2 Credits
- ARCH 5313 - Professional Practice and Ethics 3 Credits
- ARCH 5593 - Thesis Prep/Research 2 Credits
- ARCH 5998F - Focus Studio 4 Credits
- ARCH 59

Degree Program Total: 153

Construction Management

Offering:

The Bachelor of Science in Construction Management
The Masters of Science in Construction Management

General Contracting
Land Development
Specialty (MEP) Construction
Facilities Management

We also offer a minor in Construction Management for students in other majors.

What can I do with a Construction Management Degree?

Construction Management graduates work in various organizations including, but not limited to: general contracting firms, developers, specialty contractors, Fortune 500 companies, banks, highway construction and others.

Typical job titles for Construction Management graduates are:

Construction Manager
Project Engineer
Project Manager
Estimator
Owner/Representative
Office Engineer

- Facilities Management -

- Project Management Certificate
- Highway Project Management Certificate
- Land Development Certificate
- Specialty Construction Certificate (also available online)
- Facilities Management Certificate

Certificate programs are offered to provide training and education for students and working pr

- Group 1 -

- MGNT 3105 - Management and Organizational Behavior 3 Credits
- ECON 1101 - Introduction to Economics 3 Credits (if needed)
- PHYS 1111 - Introductory Physics I 3 Credits (if needed)
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits (if needed)

Concentration

Choose one Concentration from below.

General Concentration

- CM 3210 - Applied Structures 4 Credits
- CM 3260 - Temporary Structures 3 Credits
- CM 3420 - Construction Estimating and Bid Preparation 4 Credits
- CM 3620 - Construction Finance and Feasibility 4 Credits
- CM 4560 - Construction Project Management 3 Credits
- CM 4800 - Construction Process Simulation 3 Credits

Development Concentration

- CM 3310 - Introduction to Development 3 Credits
- CM 3430 - Construction Estimating for Development 3 Credits
- CM 3710 - Site Planning 4 Credits
- CM 4570 - Development Process I 4 Credits
- CM 3620 - Construction Finance an ( )]( )3b(p) 2 ( )3 (m) - ( )3 Q q-024 0 0 0.24 230.5591 312.243 BT 37 00 0 37 0

Facilities Management Concentration

- CM 3190 - Sustainable Construction 3 Credits
- CM 3620 - Construction Finance and Feasibility 4 Credits
- CM 3290 -

redits

- CM 4560 - Construction Project Management 3 Credits
- CM 4760 - Construction and Real Property Law 3 Credits

Highway Project Management Certificate

The Certificate in Land Development provides training and education to members of the real estate and land

Required Courses:

- CM 2000 - Construction Graphics 3 Credits
- CM 3000 - Computer Applications in Construction 3 Credits

- CM 3110 - Resi4 297.3602 (0)37 0 011Jc 2 (n)y 374 cm 4 cHi2 (n)yL 4 (e) 47(g 4 (e) 2 (p602 (0) 7 (n) 2 ( ) 6 (Co) 2 (

Biology career options:

Agribusiness expert
Conservation manager
Dentist
Dietitian
Drug design and developer
Environmental lawyer
High school teacher or university professor
Laboratory technician
Pharmacist
Physician
Physical or occupational therapist
Research molecular biologist or biochemist
Scientific editor
Veterinarian

Chemistry

Offering:

Bachelor of Science in Chemistry

Rajnish Singh, *Ph.D., Associate Professor*

Zvi Szafran, *Ph.D., Professor and Vice President for Academic Affairs*

Wei Zhou, *Ph.D.,* Associate *Professor*

Environmental Sciences

Offering:

Bachelor of Science in Environmental Science

Students completing this program will be prepared for positions in federal and state agencies, industry, or graduate and advanced professional programs in the environmental sciences. Graduates will be education in assessment and regulation of environmental pollution, sustainable management and conservation of wildlife and natural resources, and

students in multiple school settings, and prepares them for a successful career in teaching mathematics or science in the middle school or high school.

Teacher certification will be provided by the Georgia Professional Standards Commission (PSC) after SPSU is

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- MATH 2253 - Calculus I 4 Credits
  Take any 2 of the courses below (with labs):
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1

- Group 3 - Behavioral Science 3 Credits
- Group 4 - Cultures and Societies 3 Credits

Area F

Take any 4 courses (with labs) from the list below. Courses used as Area D requirements may not be selected.

- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits

Credits   1

- Credits   3

C   -

CHEM 1212L Chemistry II La

- Free Electives 10-14 Credits

Cellular Form and Function group

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- Free Electives 3 – 6 Credits

Biotechnology Track Requirements

- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 Take One Course from the Literature Group 3 Credits
- Area C Group 2 Take One Course from the Art and Culture Group 3 Credits
- Area E Group 1 American Context 3 Credits
- Area E Group 2 World History 3 Credits
- Area E Group 3 Behavioral Science 3 Credits
- Area E Group 4 Cultures and Societies 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- CHEM 2511K - Organic Chemistry I 4 Credits
- CHEM 2512K - Organic Chemistry II 4 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- BIOL 3000K - Genetics 4 Credits
- BIOL 3300K - Ecology 4 Credits
- BIOL 3400K - Cell Physiology 4 Credits
- BIOL 4200K - Zoology 4 Credits
- BIOL 4400K - Human Physiology 4 Credits
- BIOL 4460K - Human Anatomy 4 Credits
- BIOL 4440K - 0 Tf [T 47 0c 37 0 00757 7 (60 0 41 0 0 41 0 0 7 0 0 37 Tf( )P q 0.24 1 0 37 Tc (4)c (4)c (4)c 0 37 0 0 4

- MATH 2253 - Calculus I 4 Credits

  Take any 2 of the courses below (with labs):
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 -

- CHEM 3300K - Instrumental Analysis 4 Credits
- CHEM 4411 - Inorganic Chemistry 3 Credits
- CHEM 4111K - Physical Chemistry I 4 Credits
- CHEM 4112 - Physical Chemistry II 3 Credits
- CHEM 4112L - Physical Chemistry II Lab 1 Credits
- BIOC 3111K - Biochemistry I 4 Credits
- TCOM 2010 - Technical Writing 3 Credits
- A Chemistry major must complete one program track (see below).

General Chemistry Track

- Four additional BIOC, CHEM, MATH, or Science electives at the 3000 level or higher. 12-16 Credits
- Free electives 11-

- Area C2 - Course in Art and Culture 3 Credits
- Area D - Two courses in Laboratory Science (Physics recommended) 8 Credits
- Area E1 - American Perspective 3 Credits
- Area E2 -

Requirements

-

- STS 2400 - Science, Technology, and Society 2 Credits
- COMM 2400 - Public Speaking 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

Environmental Science majors MUST take the courses listed below to satisfy Area D

- MATH 2253 - Calculus I 4 Credits

Ava Werner, *Instructor*
Jim Werner, *Assistant Professor*
Misty York, *Lecturer*

The Program:

The Bachelor of Arts in English and Professional Communication is designed to prepare students for a variety of communication careers.

Possible positions include:

Technical writer
Documentation specialist
Technical editor
Professional writer
Information designer
Multimedia specialist
Proposal writer
Corporate communications specialist
Public relations
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 professional and
technical communication
A concentration in one area of professional communication
Additional elective courses in the major
Free electives

Students must make a grade of at least a C in all major courses.

New Media Arts

Offering:

The Bachelor of Arts in New Media Arts

The Bachelor of Arts in New Media Arts provides students with an opportunity to develop the technical and artistic skills needed to serve as practitioners in the fields of multimedia development and design, web design, and video production. As a degree that straddles two worlds--the fine and the applied arts--the degree program encourages both creativity and practical application. Students will have an opportunity to develop a strong foundation in the traditional fine arts and learn to translate these skills to new media contexts. They will also learn to approach the technical aspects of new media applications from the sensibilities of an artist as well as a technician.

With its balance between the artistic and technical aspects of new media production, the new media arts degree program should prepare students to meet a growing marketplace need for multimedia artists and to rise to the top of the pack of individuals competing for these positions. While providing an undergraduate degree option for students interested in entering careers in the fine and applied arts, it would also provide appropriate preparation for graduate study.

The Faculty:

Kami Anderson, *Assistant Professor*
Carol Barnum, *Professor*
Terry Carter, *Associate Professor*
Donna Colebeck,

Technical College System of Georgia Transfer Program

support them. You will get a solid grounding in rhetoric as well as hands-on experience with new media tools and technologies.

With our TCOM degree, you will learn much more than just how to use words effectively—you will have opportunities to learn document design, graphics, multimedia, web design, and video production as well as science and environmental writing, proposal writing, and medical communication.

Students in other majors can minor in technical communication through a range of campus-based and online course offerings. For students interested in distance learning options, Southern Polytechnic also offers a 15-credit undergraduate certificate in technical communication delivered entirely online.

Many TCOM courses are taught using a combination of on-site and online sessions that students with jobs especially appreciate. We make sure we offer enough late-afternoon and evening courses so that working students can make steady progress toward their degree.

The Faculty:

Kami Anderson, *Assistant Professor*
Carol Barnum, *Professor*
Terry Carter, *Professor*
Donna Colebeck, *Lecturer*
Laura Beth Daws, *Instructor*
Jeff Greene, *Assistant Professor*
Kim Haimes-Korn, *Professor*
Kelsey Harr-Lagin, *Instructor*
Keith B. Hopper, *Professor*
Monique Logan, *Instructor*
Matthew McCool, *Assistant Professor*
Michelle Nichols, *Lecturer*
Mark Nunes, *Professor and Department Chair*
Betty Oliver, *Professor*
Iraj Omidvar, *Associate Professor*
Jeffrey Orr, *Instructor*
Laura Palm /TT 0 0 0.24 90 307.92 cm BT 0.0081cm BT ET Q q ET Q qo

The Bachelor's program in Technical Communication is designed to prepare students for a variety of communication

- ENGL 1101 - English Composition I 3 Credits
-

- ENGL 3030 - English Grammar for Professional Writing 3 Credits
- ENGL 3100 - Rhetoric: History, Theory, and Practice 3 Credits

- TCOM 4170 - Film and Video Production 3 Credits

Degree Program Total: 121

For additional information about the B.A. program, contact the English, Technical Communication, and Media Arts Department at 678-915-7202, or email to TCOM@spsu.edu. You can also visit our website at etcma.spsu.edu.

Minors:

International Studies (15 Credits)

In place of a concentration, students can choose to complete the BA in English and Professional Communication with an International Studies minor . To be eligible for a minor in International Studies, the student must complete all courses with a grade of C or better.

Spanish (15 Credits)

In place of a concentration, students can choose to complete the BA in English and Professional Communication with a Spanish Minor . To be eligible for a minor in Spanish, the student must complete all courses with a grade of C or better.

- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits
- Additional courses in Spanish at the 3000 level 9 Credits

Global Communication Minor

After taking COMM 2500—Advanced Public Speaking and COMM 2150—Ethics and Communication, you will take only 9 more hours of coursework

Requirements

- SPSU 1001 - Hitchhikers Guide to SPSU 1 Credits
-

Students whose major already requires TCOM 2010 should take TCOM 2020

- TCOM 2010 - Technical Writing 3 Credits
- TCOM 2020 - Intro to Professional & Technical Communication 3 Credits

Area F Required Research Methods Course (3 Credits; Choose One)

- TCOM 2030 - Research in Technical Communication 3 Credits or
- ENGL 2030 - Research in Professional and Critical Writing 3 Credits

Area F Electives (6 Credits; Choose Two)

- ARTS 2020 -

- TCOM 3020 - Proposal Writing 3 Credits
- TCOM 3030 - Instructional Design 3 Credits
- TCOM 3045 -

Mathematics is the foundation upon which all other technical fields rest, and as such, is the perfect choice for students who have a profound mathematical curiosity, and a desire to apply their problem solving skills. The soaring demand for employees with specialized mathematical expertise allows graduates to follow a wide variety of career paths. Many work in fields that, while not specifically described as mathematical, require clear reasoning, logical thought, and a love and understanding of mathematics. Persons with degrees in mathematics may be found pursuing such diverse careers as actuarial science, education, coneTJ 37 0 e a pro, logicanroi( ) 2 (s2 ( ) 2 6 (p) 2(o) - (i)2 s2 (i) 2 ( ) 2 6 (p) 3 (i(n)n) -1 6 (i(n) (u

Mathematics Minor

To obtain a minor in Mathematics, the student must complete:

- MATH 2255
- An additional 14 semester hours of Mathematics courses at the 2300 level or higher

At least 9 of these additional 14 hours must be at the 3000 level or higher.

Courses used to fill other requirements at SPSU (excluding core areas A through E) may also be used to obtain a minor in Mathematics.

For example, if you take MATH 2306 to fulfill a requirement in the Management curriculum, you may also use it in a math minor. However, you may not use MATH 1113 to fulfill the math minor because it is in area A of the core curriculum.

Mathematics, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course From the Literature Group 3 Credits
- Area C Group 2 - Take One Course From the Art and Culture Group 3 Credits
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - As and Societies   3 Credit
- ASE 11   - Compr Science I

- MATH 3320 - Introductory Real Analysis I 4 Credits
- MATH 3321 - Introductory Real Analysis II 4 Credits
- MATH 4407 - Vector Analysis 3 Credits
- MATH 4440 - Abstract Algebra 4 Credits
- MATH 4451 - Capstone Mathematics Project 3 Credits

Mathematics Electives (9 Credits)

Any mathematics course numbered 2300 or above, excluding those for which dual credit is not allowed.

Guided Electives (20 Credits)

May include additional mathematics courses or other courses chosen in consultation with an advisor. May not include mathematics courses numbered less than 2000, or courses for which dual credit is not allowed.

Degree Program Total: 121

Mathematics Second Major

A student completing the B.S. degree in a field other than Mathematics may receive a second major in Mathematics at the same time to accompany that degree by completing the following courses. Note that additional courses, which are the prerequisites to these courses, are required by implication.

Mathematics Second Major Requirements

- MATH 2255 - Calculus III 4 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- MATH 2345 - Discrete Mathematics 3 Credits
- MATH 3310 - Introduction to Advanced Mathematics 3 Credits
- MATH 3312 - Linear Algebra 4 Credits
- MATH 3320 - Introductory Real Analysis I 4 Credits
- MATH 3321 - Introductory Real Analysis II 4 Credits
- MATH 4407 - Vector Analysis 3

- MATH 4451 - Capstone Mathematics Project 3 Credits
- Math Electives - 3 Credits (Any mathematics course numbered 2300 or above, excluding those for which dual credit is not allowed.)
- EDUC 1101 - UTeach Step 1 1 Credits
- EDUC 1102 - UTeach Step 2 1 Credits
- EDUC 2010 - UTeach Knowing and Learning 3 Credits
- EDUC 2020 - Classroom Interactions 3 Credits
- EDUC 4030 - Project Based Instruction 3 Credits
- MAED 2010 -

Our graduates have been hired by respected organizations like Applied Decision Analysis, Inc., Argonne Labs, Barco Chromatics, BellSouth Mobility, Cape International Management, Inc., Flexible Products Company, Georgia Department of Agriculture, Gallet & Associates, Hulsey Seed Laboratory, Inc., Institute of Paper Science & Tech, Inc., Law Engineering & Environment Serv. Inc., Lockheed, Lucas Body Systems NA, NASA, National Science Foundation, Nortel Telecommunications, Nova Engineering & Environment, Osmose Wood Preserving, Inc., Southern Company, and VA's CDI Corporation.

SPSU physics majors meet the educational portion of requirements for registration as a professional engineer in most

Questions should be directed to the Teacher Education Office in J-

- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)
- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F)
- MATH 2254 - Calculus II 4 Credits
- MATH 2255 - Calculus III 4 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- PH0 0.24 112.5996 587.52 cm PH

- PHYS 3500K -

- EE 4201 - Control Systems 4

- EDG 2160 - Civil Graphics and Computer Aided Drafting 3 Credits
- ENGR 2214 - Engineering Mechanics – Statics 3 Credits
- ENGR 3122 - Dynamics 3 Credits
- ENGR 3131 - Strength of Materials 3 Credits
- ENGR 3132 - Strength of Materials Lab 1 Credits
- ENGR 3343 - Fluid Mechanics 3 Credits
- ENGR 3345 - Fluid Mechanics Laboratory 1 Credits
-

multiple school settings, and prepares them for a successful career in teaching mathematics or science in the middle school or high school.

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course from the Literature Group

- EDUC 2020 - Classroom Interactions 3 Credits
- EDUC 4030 - Project Based Instruction 3

The Faculty:

Richard Bennett, *Associate Professor and Director of International Studies*
Albert Churella, *Associate Professor*
J. LaJuana Cochrane, *Associate Professor and Psychology Coordinator*
Jamye Hickman, *Assistant Professor*
Marianne Holdzkom, *Assistant Professor*
Julie Newell, *Professor and Chair of Department*
Thomas J. Nisley, *Assistant Professor*
Bernice Nuhfer-Halten, *Professor and Language Coordinator*
Thomas E. Rotnem, *Associate Professor and International Studies Coordinator*
William Skutans, *Lecturer*
Roger Soiset, *Lecturer*
Carl Snook, *Assistant Professor*

The Associate of Science General Studies Transfer Program is designed for students who wish to complete the core at SPSU and then transfer to another institution.

- PHYS 1211K - Principles of Physics I (ECORE) 4 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits

Math:

- MATH 1113 - Pre-calculus 4 Credits
  (or other math as specified in the University core)

Area E: Social Sciences (12 credits)

Group 1 Amerian Perspectives- (3 credits):

Group 4 Global Perspectives (3 credits):

Satisfies the Global Perspectives overlay.

   Choose ONE of the following:
- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- POLS 2401 - Global Issues 3 Credits
- RELG 1200 - World Religion 3 Credits

Elective Courses:

- At least one additional course in humanities (Area C) 3 Credits
- At least one additional course in social sciences (Area E) 3 Credits
- Any humanities, social science, math, lab science or any area F course from any program. 11-12 Credits

Total Program Hours: 60

History Minor

All courses must be completed with grade of C or better. No more than 9 hours may also be used to satisfy requirements in a major or another minor except free electives. No courses used to satisfy Core Areas A-E may be used in a minor.

World History (3 credits):

Choose ONE course not used to satisfy core Area E-2:

- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 -

Upper-Division History courses (9 credits):

Any 9 credits of 3000- or 4000-level HIST courses.

Total Program Hours: 18

International Studies Minor

All courses must be completed with grade of C or better. No more than 9 hours may also be used to satisfy requirements in a major or another minor *except free electives.* No courses used to satisfy Core Areas A-E may be used in a minor.

Regional Studies (3 credits):

Choose ONE of the following:

- IS 4000 - Regional Studies -

- HIST 3200 - History of Science Survey 3 Credits
- HIST 3301 - Diplomatic and Military History since 1815 3 Credits
- HIST 3401 - Modern Social and Cultural History Twentieth Century 3 Credits
- HIST 3501 - Colonization and Rebellion in the Trans-Atlantic World 3 Credits
- HIST 3601 - History of the Pacific Rim 3 Credits
- HIST 3801 - Contemporary World History since 1945 3 Credits
-

International Studies, BS

By offering an International Studies degree with a required minor, SPSU seeks to produce graduates who not only understand the political and economic processes of globalization, but also possess field-specific skills and knowledge that will allow them to deal with the new demands of the global economy. Companies that will employ our graduates will be global ones, so it is necessary for their employees to understand the political, economic, cultural, as well as technical contexts in which their companies function. The International Studies degree will prepare graduates for graduate study in a number of possible fields and for employment in:

- Government
- Intelligence
- International business
- Pre-law
- Public policy
- The military
- The non-profit sector

Area C: Humanities / Fine Arts (6 credits)

C-1: Literature (3 credits)

Choose ONE of the following:

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132 - American Literature Mid 1800s to Present 3 Credits
- ENGL 2141 - Early Western Literature

- BIOL 2107 -

Choose ONE of the following:

- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits

E-3: Behavioral Science Perspectives (3 credits)

Choose ONE of the following (ECON 1101 Introduction to Economics is requir

- POLS 4301 - International Political Economy 3 Credits
- PSYC 3101 - International Social Psychology 3

International Studies majors must complete at leat one of the minors offered at SPSU (in any department or program).

- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits

Core Areas A-E

Area A: Essential Skills (9 credits)

Grade of C or better required in courses used to satisfy this requirement. Freshmen must complete Area A by the time they have attempted 30 semester hours of course work.

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
  (or other math as specified in the SPSU core)

Area B: Institutional Options (4 credits)

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C: Humanities / Fine Arts (6 credits)

C-1: Literature (3 credits)

Choose ONE of the following:

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112

C-2: Humanities (3 credits)

Choose ONE of the following (language recommended):

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

- RELG 1200 - World Religion 3 Credits

Core Area F (18 credits)

- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits
  or 6 credits of any non-English language at an equivalent level
- ECON 1101 - Introduction to Economics 3 Credits
- POLS 1101 - American Government 3 Credits
- POLS 2100 -

Degree Program Total: 121

Pre-Law Minor

All courses must be completed with grade of C or better. No more than 9 hours may also be used to satisfy requirements in a major or another minor except free electives. No courses used to satisfy Core Areas A-E may be used in a minor.

Required Courses (6 credits):

Take TWO of the following courses NOT used to satisfy Core Area E-1:

- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits

Elective Courses (12 credits):

Pick any FOUR of the following:

-

(If PSYC 1101 has been used for Core Area E-3, any 2000-Level PSYC course may be substituted in the minor)

- IET 2227 - Introduction to Statistics 3 Credits
-

- SPAN 1002 - Elementary Spanish II 3 Credits
- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits

Area D: Science and Math (11-12 credits)

D-

- PSYC 2011 - Cognitive Psychology 3 Credits
- PSYC 2270 - Engineering Psychology 3 Credits
- PSYC 2271 -

- PSYC 3040 - Motivation and Emotion Credits
- PSYC 3305 - Developmental Psychology 3 Credits
- PSYC 4000 - International Psychology 3 Credits
- PSYC 4130 - Psychology of Aging 3 Credits
- PSYC 4220 -

Spanish Minor

All courses must be completed with grade of C or better. No more than 9 hours may also be used to satisfy

- SPAN 4902 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4903 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4904 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4905 - Special Topics for Professional Spanish 1 to 5 Credits

Learning Project (3 credits):

- SPAN 4003 - Service Learning Project 3 Credits

Oral Proficiency Interview (OPI):

After all coursework is comy08 9.0099 8(l) 6 (l2 0.24 ET)ol2 0.24 i 0.2s2i24   s2sil 2rco2 lmyT6.0 lc22sI rl22cIewol(6 (2) 3 (2) ol2 0.L

in our classrooms, professors teach using networked computers and smart boards, and technologies that allow for interactive demonstrations of programs at work, and other innovative pedagogical techniques.

About the Program

As preparation for diverse employment opportunities, the Computer Science program offers a wide range of

- Software Engineering graduates will be successful professionals in the field with solid fundamental knowledge of software engineering, who can effectively analyze, design, and develop high-quality software systems.
- Graduates utilize and exhibit strong communication and interpersonal skills, as well as professional and

Minor in Game Design and Development Program Objectives:

- Provide students with game design and development knowledge that can be applied in their major area of study
- Provide students with fundamental game design and development skills

Minor in Game Design and Development Learning Outcomes

- Demonstrate skills fundamental to game design and development
- Demonstrate knowledge in at least two subfields of game design and development

Required Courses

- CSE 1301 - Programming and Problem Solving 1 *4 Credits*
- CGDD 2002

- CSE 1302 Programming & Problem Solving II 4 Credits
- CSE 1002 - Introduction to the Computing Disciplines 2 Credits
- CSE 3642 - Professional Practices and Ethics 2 Credits
- CS 3224 - Computer Organization & Architecture 4 Credits
- CS 3424 - Data Structures 4 Credits
- CS 4363 - Computer Graphics and Multimedia 3 Credits
- CS 4523 - Artificial Intelligence 3 Credits
- SWE 2313 - Introduction to Software Engineering 3 Credits
- SWE 3643 - Software Testing and Quality Assurance 3 Credits
- SWE 4324 - User-Centered Design 4 Credits
- CGDD 2002 - Fundamentals of Game Design 2 Credits
- CGDD 3103 - Application Extension and Scripting 3 Credits
- CGDD 4003 - Digital Media and Interaction 3

Distributed-Mobile

- SWE 3683 - Embedded Systems Analysis & Design 3 Credits
- CS 4253 - Distributed Computing 3 Credits
- CS 4263 - Computer Networks 3 Credits

Educational-Serious

- 6 hours of approved TCOM courses
- CGDD 4313 - Designing Online Learning Content and Environments 3 Credits

Planning-Management (pick 3 of 4)

- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 4185 - Technology Management 3 Credits
- SWE 3623 - Software Systems Requirements 3 Credits
- SWE 4663 - Software Project Management 3 Credits

Simulation-Informatics

- CSE 3153 - Database Systems 3 Credits
- CS 4253 - Distributed Computing 3 Credits
- CGDD 4703 - Data Modeling and Simulation 3 Credits

BS CGDD Program Objectives

Meet the educational needs of students and prepare them for careers within the discipline

Expand the visibility of SPSU and the University System of Georgia (USG) in the field of game design and development

Create a strong community of students and alumni

Serve the community and industry

BS CGDD Learning Outcomes

Upon graduation, students will be able to:

- Decompose and solve complex problems through artifacts of computing such as hardware, software specifications, code and other written documents
- Demonstrate an understanding of computing principles in the areas of programming, data structures, architecture, systems, graphics, and artificial intelligence and how they relate to computer game design and development
- Utilize mathematics and science in game design and development
- Apply principles of game design and development to generate a portfolio showcasing their successful industrial experience, research, and/or creative works
-

BACS Program Objectives

- To meet the educational needs of the students and prepare them for careers using their computing knowledge. Students should be well versed in not only the fundamentals but also develop skills in problem solving, logic, organization, and ethics.
- To provide graduates with a thorough grounding in key principles and practices of computing.
- To provide graduates with an understanding of the ethical aspects of computing within society.
- To provide graduates with applicable communication and team skills to be used in computing careers.
- To provide graduates with another area of study where they can apply their computing knowledge or expand the context for their computing knowledge.
- To prepare graduates for employment using their computing knowledge.

BACS Learning Outcomes

Each graduate of the program should be able to:

-

- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- CSE 1002 - Introduction to the Computing Disciplines 2 Credits
- CSE 1301 - Programming & Problem Solving I 4 Credits
- CSE 1302 - Programming & Problem Solving II 4 Credits
- CSE 3642 - Professional Practices and Ethics 2 Credits
- CS 3123 - Programming Language Concepts 3 Credits
- CSE 3153 -

- Describe and explain the major concepts in the areas of operating systems, programming languages, architecture, and distributed computing.

Degree Program Total: 122

The Five-Year BSCS-MSSWE Program

This program is likely to be of great

Minor in Software Engineering

- CSE 1302 - Programming & Problem Solving II 4 Credits
- SWE 2313 - Introduction to Software Engineering 3 Credits
- Three additional upper-level SWE courses 9 Credits

Note:

SWE 1302 has a pre-requisite of SWE 1301.

- CSE 3153 - Database Systems 3 Credits
- CS 3224 - Computer Organization & Architecture 4 Credits
- CS 3424 - Data Structures 4 Credits
- CS 3243 - Operating Systems 3 Credits
- SWE 2313 - Introduction to Software Engineering 3 Credits
- SWE 3623 - Software Systems Requirements 3 Credits
- SWE 3633 - Software Architecture & Design 3 Credits
- SWE 3643 - Software Testing and Quality Assurance 3 Credits
- SWE 4324 - User-Centered Design 4 Credits
- SWE 4663 - Software Project Management 3 Credits
- SWE 4713 - SWE Application Domain 3 Credits
- SWE 4724 - Software Engineering Project 4 Credits
- SWE Upper Level Electives - Choose 2 courses from the approved list, at least one must be an SWE course 6 Credits
- Free Electives - (Excludes MATH 1111, PHYS 1111, 1111L and PHYS 1112, 1112L) 5 Credits

Degree Program Total: 128+

Note:

In lieu of PHYS 2211, 2211L, an additional lab science course may be taken to form a sequence with one of the science

- IT 3203 - Introduction to Web Development 3 Credits
- IT 3223 - Software Acquisition and Project Management 3 Credits
- IT 3423 - Operating Systems Concepts & Administration 3 Credits
- IT 3883 - Advanced Applications Development 3

- MATH 2240 - Survey of Calculus 3 Credits

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society

Enterprise Systems Track

- IT 4203 - Advanced Web Development 3 Credits
- IT 4153 - Advanced Database 3 Credits
- IT 4333 - Network Configuration & Administration 3 Credits
- IT 4903 - Special Topics in Information Technology 3 Credits
- IT 4673 - Virtual IT Systems 3 Credits
- IT 4713 - Business Intelligence Systems 3 Credits

Information Assurance & Security Track

-

WebBSIT Curriculum

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
- MATH 1113 - Pre-calculus 4 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take one course from the Literature Group 3 Credits
- Area C Group 2 -

consulting and design firms. Graduates have the qualifications to enter careers in areas such as, but not limited to, transportation engineering, structural engineering, environmental engineering, geotechnical engineering, water resource engineering, and construction engineering. Typical job titles for graduates include civil engineer, construction engineer, project engineer, planner, project supervisor, consulting engineer, and design engineer.

Civil Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of construction projects and the associated systems and resources. Graduates in the area of Civil Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of civil engineering projects and to serve in key leadership positions within the engineering profession.

Faculty:

The Construction Engineering curriculum offers a balance of course work in engineering analysis, engineering design, construction practice, and construction management. Graduates

**or equivalent as approved by CCE Chair
- MATH 2306 -

- CE 4709 - Matrix Structural Analysis 3 Credits

Construction Engineering, BS

Requirements

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2254 - Calculus II 4 Credits
- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- MATH 2335 - Numerical Methods I 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C1 - Course in English Literature 3 Credits
- Area C2 - Course in Art and Culture 3 Credits
- Area E1 - Course in History: American Perspective 3 Credits
- Area E2 - World History 3 Credits
- Area E3 - Course in Behavioral Science 3 Credits
- Area E4 - Cultures and Societies 3 Credits
- EDG 2160 - Civil Graphics and Computer Aided Drafting 3 Credits
- ENGR 2214 - Engineering Mechanics – Statics 3 Credits
- ENGR 3131 - Strength of Materials 3 Credits
- ENGR 3132 - Strength of Materials Lab 1 Credits
- ENGR 3324 - Project Cost Analysis 4 Credits
- ENGR 3343 - Fluid Mechanics 3 Credits
- CE 1000 - Orientation to Engineering and Surveying Professions 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- CE 3201 - Structural Analysis 3 Credits
- CE 3501 - Materials for Civil & Construction Engineering 3 Credits
- CE 3502 - Materials for Civil & Construction Engineering Lab 1 Credits
- CE 3701 - Geotechnical Engineering 3 Credits
- CE 3702 - Environmental Engineering 3 Credits
- CE 4177 - Transportation Engineering 3 Credits

- CE 4178 - Highway Design and Construction 3 Credits
- CE 4703 - Engineering Hydrology 3 Credits
- CE 4800 - Senior Project 3 Credits
- CM 3160 - Commercial and Heavy Construction Methods 3 Credits
- CM 3420 - Construction Estimating and Bid Preparation 4 Credits
- CM 4510 - Construction Scheduling 3 Credits
- CM 4560 - Construction Project Management 3 Credits
- CM 4639 - Construction Safety & Law 4 Credits
- SURV 2221 - Surveying I 4 Credits
- CE 4202 - Steel and Concrete Design 4 Credits

Degree Program Total: 130

The Construction Engineering degree requires a grade of "C" or better in all CE, SURV, ENGR and CM courses applied to degree requirements.

Electrical and Mechatronics Engineering

Electrical Engineering

Offering:

Bachelor of Science degree in Electrical Engineering

The Electrical Engineering program is part of the School of Engineering at Southern Polytechnic State University. Electrical Engineering is arguably the largest discipline of engineering. It focuses on the application of the principles of electricity and its use with electrical devices and systems. In this energy conscious world, a thorough understanding of energy and its uses is essential to the success of an electrical engineer.

Nearly every industry utilizes electrical engineers. Graduates have the qualifications to enter careers in areas such as, but not limited to, telecommunications, computer engineering, manufacturing, the aerospace industry, power generation and distribution, alternative energy, robotics, and automation. Typical job titles for graduates may include electrical engineer, electronics engineer, telecommunications engineer, project engineer, planner, project supervisor, consulting engineer, and design engineer.

Electrical Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of design projects and the associated systems and resources. Graduates in the

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C1 - Course in Literature 3 Credits
- Area C2 - Course in Art and Culture 3 Credits
- Area E1 - American Perspective 3 Credits
- Area E2 - World History 3 Credits
- Area E4 - Course in Cultures and Societies 3 Credits
- ECON 2107 - Introduction to Economic Analysis 3 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
-

Degree Program Total: 129

- MTRE 3710 - Mechatronics Engineering Fundamentals 4 Credits
- EE 2501 - Digital Logic Design 4 Credits
- ENGR 3131 - Strength of Materials 3 Credits
- ENGR 3132 - Strength of Materials Lab 1 Credits
- ENGR 3125 - Machine Dynamics & Vibrations 3 Credits
- MTRE 4000 - Advanced Controls 3 Credits
- MTRE 4200 - Robotics Analysis and Synthesis 3 Credits
- MTRE 4400 - Mechatronics System Design 4 Credits
- CSE 1301E - C++ Programming for Engineers 4 Credits
- Math Elective 3 Credits

Degree Program Total Hours: 130

The Mechatronics Engineering degree requires a grade of "C" or better in all MTRE, EE, ME and ENGR courses applied to degree requirements.

Systems and Mechanical Engineering

Mechanical Engineering

Offering:

Bachelor of Science degree in Mechanical Engineering

Mechanical engineering is one of the largest

Kamran Moghaddam, Ph.D., P.E., *Assistant Professor*

Woodrow W. Winchester, III, Ph.D., *Associate Professor*

Areas of Study

Aerospace Engineering Minor

Requirements

- SYE 3801 - Aerodynamics (Aeronautic Elective) 3 Credits
- SYE 4803 - Aeronautics Project 3 Credits

Choose 3 courses from the following:

- SYE 3802 - Aircraft Design and Performance (Aeronautic Elective) 3 Credits
- SYE 3803 - Fundamentals of Avionics 3 Credits
- SYE 4801 - Aircraft Propulsion 3 Credits
- SYE 4802 - Helicopter Theory 3 Credits
- SYE 4804 - Special Topics Credits related to aerospace engineering

- MATH 2335 - Numerical Methods I 3 Credits * May substitute MATH 3312 Linear Algebra (4 credits) or equivalent as approved by SME Chair department chair.
-

Technical Electives

Technical Electives can be any non-required 3000 and/or 4000 level courses from ME, including Special Topics (ME
3

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Technical Electives can be 3000 and/or 4000 level courses from SYE, SWE, MTRE, ME, CE, EE or MATH. Other courses may be approved by the department chair. Students may focus their technical electives in Aerospace Engineering or Nuclear Engineering.

School of Engineering Technology & Management

Offering

The Bachelor of Applied Science in Business Management
The Bachelor of Arts in Management
The Bachelor of Science in Accounting
The Bachelor of Science in Business Administration

The Masters of Business Administration (See the graduate catalog)
The Masters of Science in Accounting (See the graduate catalog)

The baccalaureate programs in Business Administration prepare students for successful careers in management and marketing. Graduates of the program advance into supervisory and management positions in service and industrial enterprises.

The

Bor-Yi Tsay, Professor, Accounting
Sandra Vasa-Sideris, Professor, Management

Accounting Minor

Students who wish to receive a concentration or minor in Accounting must take:

Accounting Minor Courses

- ACCT 3230 - Intermediate Accounting I 3 Credits
- ACCT 3231 -

Area B Institutional Options

- COMM 2400 - Public Speaking 2 Credits
-

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistryb

- MGNT 2201 - Business Computer Applications 3 Credits

Common Professional Core

- MGNT 1000 - Orientation to Business 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- MGNT 3125 - Business Finance 3 Credits
- MGNT 3145 - Legal Environment of Business 3 Credits
- MGNT 3205 - Management Information Systems 3 Credits
- MGNT 4135 - Project Management 3 Credits
- MGNT 4151 - Operations Management 3 Credits

Core Accounting Courses

- ACCT 3230 - Intermediate Accounting I

Degree Program Total: 122

Business Administration, BS

Area A - Essential Skills (10 hours)

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 -

- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D1 - Mathematics (4 hours)

- ECON 1101 - Introduction to Economics 3 Credits
- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

Area E4 - Cultures and Societies (3 hours)

- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- POLS 2401 - Global Issues 3 Credits
- RELG 1200 - World Religion 3 Credits

Area F (18 hours)

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- ACCT 2102 - Principles of Managerial Accounting 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- ECON 2105 - Principles of Macroeconomics 3 Credits
- ECON 2106 - Principles of Microeconomics 3 Credits
- MGNT 2201 - Business Computer Applications 3 Credits

Required Courses

- MGNT 1000 - Orientation to Business 1 Credits
- IET 2227 - Introduction to Statistics 3 Credits
-

- MGNT 4595 - Business Strategy 3 Credits

Finance Concentration Electives (12 Credits)

- MGNT 3231 - Management of Financial Institutions 3 Credits
- MGNT 4232 - Financial Planning and Capital Budgeting 3 Credits
- MGNT 4233 - Investment Analysis and Portfolio Management 3 Credits
- MGNT 4234 - International Finance 3 Credits

Management Concentration Electives: Select 4 courses from the list below

The Bachelor of Applied Science degree is designed to cap designated associate degree programs. Admission to this program requires completion of an associate of applied science or associate of applied technology degree in Business

Area E3 - Social Sciences - Behaviorial Science (3 hours)

- ECON 1101 - Introduction to Economics 3 Credits
- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

Area E4 - Social Sciences - Cultures and Societies

- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- RELG 1200 - World Religion 3 Credits
- POLS 2401 - Global Issues 3 Credits

Technical Block

3

- MGNT 4234 - International Finance 3 Credits

International Business Minor

International Business Minor

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3125 - Business Finance 3 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- MGNT 4145 - International Management 3 Credits
- POLS 4301 - International Political Economy 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits
  or equivalent language course

Management BA

The Bachelor of Arts

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132 - American Literature Mid 1800s to Present 3 Credits
- ENGL 2141 - Early Western Literature 3 Credits
- ENGL 2142 - Western Literature 1600s to Present 3 Credits
- ENGL 2300 - African-American Literature and Culture 3 Credits

Area C2 - Humanities/Fine Arts - Art and Culture (3 hours)

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D - Science, Mathematics, and Technology (12 hours)

- MATH 1113 - Pre-calculus 4 Credits
  Take any two courses of the following (course must have a lab that is taken concurrently)
- ASTR 1000K - Introduction to the Universe 4 Credits
- BIOL 2107 - Principles of Biology I 3

- PHYS 1112L -

Professional Registration:

Registered Land Surveyor: Graduates exceed the educational requirements to become licensed as a Registered Land Surveyor (RLS) in Georgia. In addy:

Area A:

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area B:

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C:

- ENGL Literature 3 Credits
- ARTS 2001, 2002, 2003, 2004 or FRENCH, GERMAN, SPANISH 1002 3 Credits

Area D

-

Additional Requirements

- CE 1000 - Orientation to Engineering and Surveying Professions 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
-

EvET students are required to earn a grade of "C" or better in all courses required in the major and all courses used as electives.

Geographical Information Systems Certificate

The Geographical Information Systems (GIS) Certificate program is designed to prepare students with a practical set of GIS marketable skills who have a background in GIS applications such as surveying, real estate, marketing, geography or business background. There are five courses required in the certificate program.

Required Courses (19 Credits)

- SURV 2110 - Introduction to Mapping 4 Credits
- SURV 3421 - Geographic Information Systems I 4 Credits
- SURV 4420 - Remote Sensing 4 Credits
- SURV 4422 - Geographic Information Systems II 4 Credits
- SURV 4110 - Geographical Information Systems (GIS) Practice 3 Credits

Certificate Program Total: 19

Land Surveying Certificate

The Land Surveying Certificate program is designed to prepare surveyors with the basic education necessary to take the Fundamentals of Land Surveying Exam and exceeds the State of Georgia academic registration requirements to become a Registered Land Surveyor. There are six courses required in the certificate program.

Required Courses (22 Credits)

- SURV 2221 - Surveying I 4 Credits
- SURV 3222 - Surveying II 4 Credits
- SURV 4465 - Legal Aspects of Land Surveying 4 Credits
- SURV 4475 - Land Surveying Practice 2 Credits
- SURV 4470 - Land Development Design 4 Credits
- CET 4310 - Stormwater Management and Erosion Control 2 Credits

Certificate Program Total: 21

Structural Engineering Technology, BS

(pending BOR approval)

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits

CET Electives

Take a minimum 8 hours from the courses listed below:

- CET 4220 - LFRD Steel Design 4 Credits
- CET 4310 - Stormwater Management and Erosion Control 2 Credits
- SET 3240 - Hydraulic Structures 3 Credits
- CET 4420 - Earth Dam and Levee Design 3 Credits

Degree Program Total 130

CET students are required to earn a grade of "C" or better in all courses required in the major and all courses used as electives.

Surveying and Mapping, BS

Requirements:

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
-

- CET 3130 - Applied Fluid Mechanics and Hydraulics 2 Credits
- CE 1000 - Orientation to Engineering and Surveying Professions 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- EDG 2160 - Civil Graphics and Computer Aided Drafting 3 Credits
- CET 2200 - Introduction to Structures 4 Credits
- CET 3510 - Traffic Analysis and Road Design 2 Credits
- CET 4310 - Stormwater Management and Erosion Control 2 Credits
- CET 3120 - Cost Estimating and Scheduling in CET 3 Credits
- SURV 2221 - Surveying I 4 Credits
- SURV 3222 - Surveying II 4 Credits
- SURV 4410 - Surveying Computations and Adjustments 4 Credits
- SURV 3421 - Geographic Information Systems I 4 Credits
- SURV 4465 - Legal Aspects of Land Surveying 4

The Bachelor of Science in Computer Engineering Technology
The Bachelor of Science in Electrical Engineering Technology
The Bachelor of Science in Telecommunications Engineering Technology

Scott Larisch, *Assistant Professor*
Florian Misoc, *Associate Professor*

- Recognize the value of diversity, and identify ethical and social issues in business and technical tasks.
- Demonstrate a commitment to quality timeliness and continuous improvement.

The degree program in computer engineering technology utilizes a core of mathematics, physics, and electronics

division (3XXX/4XXX) ECET course, with the exception of ECET 3000, ECET 3010 & ECET 4830, may be used for the remainder of their EET electives. Students may also choose one course from outside the major to count as an EET elective. Contact the ECET Department to obtain a list of acceptable courses from outside the major that count as an EET elective.

Students may wish to focus their EET electives in a particular area of Electrical Engineering Technology. Suggested choices in the areas of biomedical, communications, digital, power, and telecommunications are listed below: EET Electives

Biomedical electronics, instrumentation, and devices represent one of the fastest growing segments of the health care industry. Recognizing the demand, and the importance of producing graduates for this growth area, the ECET department offers a Biomedical Engineering Technology Option under the Electrical Engineeering Technology (EET) degree. Students wishing to take this option must declare so in DegreeWorks. Upon completion of the EET-BMET Degree Option, students will receive the BS-EET degree with the Option inscribed on their transcripts.

Bachelor of Science in Telecommunications Engineering Technology

The ever-increasing popularity of the Internet combined with significant advances in communications software and hardware has spawned an immense demand for individuals possessing the knowledge and skills required to design, implement, and maintain computer networking systems of all types. The bachelor of science degree program in

Areas of Study

- ECET 4610 - Control Systems

Electrical Engineering Technology, BS

Requirements

- CHEM 1211 - Principles of Chemistry I 3 Credits *

Degree Program Total: 128

Note:

PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L may be substituted for PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L

-

Technology (3)

*ECET 3010 -

- ECET 2300 - Electronics I 4 Credits
- ECET 2210 - Digital II 4 Credits
- ECET 2310 - Electronics II 4 Credits
- ECET 3400 - Data Communications 4 Credits
- ECET 3410 - High Frequency Systems 4 Credits
- ECET 3810 - Applications of C++, JAVA and HTML 3 Credits
- ECET 4820 - Communications Networks and the Internet 4 Credits
- ECET 4830 - Telecommunications Management 3 Credits
- ECET 4840 - Advanced Telecommunications 4 Credits
- ECET 4850 - Telecommunications Project 4 Credits
- ECET 4860 - Network Security 4 Credits
- EDG 1210 - Survey of Engineering Graphics 2 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 4135 - Project Management 3 Credits
- TCET Electives 6 Credits

Degree Program Total: 128

Note:

PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L may be substituted for PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L .

TCET majors are required to earn a "C" or better in their ECET courses, except one "D" in a 3000 or 4000 level non-prerequisite course may be used for graduation purposes. A grade of "C" or better is required in the project-based capstone course.

TCET Electives

Students may take any *non-required* 3000 or 4000 level ECET or MGNT course to satisfy the TCET elective requirement of 6 credit hours.

Industrial Engineering Technology

Industrial Engineering Technology

Offering:

Bachelor of Science in Industrial Engineering Technology

to add people or machinery for maximum impact? If you like to be at the center of the action, designing creative solutions that make business and industry work safer, faster, and leaner, the career for you is industrial engineering technology.

The Industrial Engineering Technology program prepares students to help make organizations more efficient, productive, and cost-effective. These skills add directly to a company's—and the students own—bottom line.

Who makes a good industrial engineering technology student? Those

Program Educational Objectives:

Graduates of the Industrial Engineering Technology Program will:

- Meet industry expectations for expertise in the design, improvement, and installation of integrated systems of manpower, machines, materials, information, energy and logistics,
- Possess a balance of knowledge that encompasses the specialties in the industrial engineering spectrum,
- Be capable of combining the knowledge and practice of engineering technology with the science of decision making in business, manufacturing, and service,
- Be capable of using the sciences together with methods of engineering analysis and design to evaluate, specify, and predict the results to be obtained from integrated systems,
-

Rhonda Freeman, *Part Time Faculty*
Mark Kyle, *Part Time Faculty*
Walter Thomas, *Part Time Faculty, Professor Emeritus*

BAS Manufacturing Operations

Offering:

Bachelor of Applied Science

The Bachelor of Applied Science in Manufacturing Operations has been specifically designed for students who have completed an Associate of Applied Science Degree from a Technical College System of Georgia institution.

The goal o

Applicants must meet all undergraduate admission requirements.

Apparel Textile Technology-Fashion Design & Product Development

Offering:

Fashion Design and Product Development
Bachelor of Apparel and Textiles

Fashion is clothing that is in style at a particular time. The focus of the Fashion Design and Product Development program is the "concept to distribution" design and development of fashions for the ready-to-wear clothing market. Men's wear, women's wear, active and leisure apparel, children's wear and many other sewn products are all part of the fashion/apparel industry, one of the largest and most important industries in the United States. Excellent starting salaries, rapid advancement, job diversity, and travel are just some of the benefits to graduates of this program. The industry offers employment in all 50 states, and many opportunities around the world. Graduates work with technologies, computers and software to design and create quality products in a fast-paced, ever changing fashion environment.

The Faculty:

Thomas Ball, *Assistant Professor and Department Chair*
Keely Clay, *Assistant Professor*
Walter Thomas, *Part Time Faculty and Professor Emeritus*

Program Educational Objectives

- To prepare graduates with the fundamental understanding of concept, product development, sourcing, marketing and merchandising of the ready-to-wear apparel industry.
- To provide graduates with an understanding of the political and ethnical aspects pertaining to global product development.
- To prepare graduates with the basic knowledge for various entry level positions in the fashion/apparel industry.
- To provide a challenging curriculum consistent with industry needs.

Program Outcomes

Graduates of the program should be able to:

- Demonstrate a conceptual knowledge of the fashion/apparel industry;
- Communicate effectively in written and presentation skills;
- Demonstrate an ability to plan, execute and critique their concepts and ideas;
- Identify, critique and evaluate emerging technologies and concepts applicable to their chosen field;
- Demonstrate sound business principles and practices of the fashion/apparel industry.
- Demonstrate the ability to perform effectively in team environments.

- Recognize the need for life long learning.

Areas of Study

Apparel and Textiles Minor

To be eligible for a minor in Apparel and Textile Technology, the student must complete 15 credit hours from the following courses with at least 9 hours of upper division course work.

Requirements

- ATT 1200 - Apparel Design Graphics 2

- MGNT 3205 - Management Information Systems 3 Credits
- MGNT 4145 - International Management 3 Credits
- Free Electives 6 Credits

Degree Program Total: 120

* At least six hours of Related Elective must be upper level courses

- IET 2305 - The Role of Industrial Engineering Technology in Industrial Systems 4

Note 2 – Chemistry I is the preferred Area F Science, however, any Lab Science from the approved list is permissible.

A grade of "C" or better is required in all courses used in the major prescribed for the bachelor degree program.

Concentration in Logistics

Total: 21

Students who successfully complete the Concentration with a grade of "C" or better in each course will be awarded a Green Belt Certificate.

Logistics Certificate

The primary objective of the Certificate in Logistics is to provide training and education to members of the Supply Chain industry that need to improve skills and knowledge in the latest technology available in their field. Students can complete the requirements in 4

- IET 3620 - Warehousing Systems 3 Credits

Students choose one from the following:

- IET 3403 - Advanced Statistics with Application 3 Credits
- IET 3410 - Principles of Team Dynamics 3 Credits
- IET 3511 - Sustainability Engineering 3 Credits
- IET 4405 - Operations Research - Concepts, Models and Methods 3 Credits
- MGNT 4115 - Human Resource Management 3 Credits
- MGNT 4135 - Project Management

- MATH 1111 - College Algebra 3 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- Sciences - Lab Sciences 8 Credits
- MATH 1113 - Pre

Quality Principles Certificate

The primary objective of the Certificate in Quality Principles is to provide training and education to members of the Industrial Engineering field in quality system principles, methodology, elements and standards. Students can complete the requirements in 3–4 semesters. These courses may also be applied toward completing a B.S. degree in Industrial Engineering technology upon acceptance to SPSU.

Admission Requirements:

Applicants must meet all undergraduate admission requirements.

Required Courses:

- IET 2227 - Introduction to Statistics 3 Credits
- IET 3339 - Statistical Quality Control

- IET 3403 - Advanced Statistics with Application 3

- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- Sciences - Lab Sciences 8 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area E

- Group 1 - American Context 3 Credits
- Group 2 - World History 3 Credits
- Group 3 - Behavioral Science 3 Credits
- Group 4 - Cultures and Societies 3 Credits

Area F

- Technical Block - Up to 17 Semester Hours 17 Credits
- Major Technical Block - Up to 21 Semester Hours 21 Credits

Major Courses

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- IET 2449 - Logistics and Supply Chain Management 3 Credits
- IET 3320 - Advanced Logistics 3 Credits
- IET 3339 - Statistical Quality Control 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 3424 - Engineering Economy 3 Credits
- IET 3511 - Sustainability Engineering 3 Credits
- IET 3620 - Warehousing Systems 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3135 - Principles of Marketing 3

Degree Program Total: 120

Mechanical Engineering Technology

Offering:

Offering: Bachelor of Science in Mechanical Engineering Technology

Mission Statement

The Mechanical Engineering Technology Program at Southern Polytechnic State University prepares graduates with the necessary knowledge and skills to perform in professional positions in mechanical engineering. Positions include careers in the design, development, implementation, analysis, manufacturing, testing, evaluation, sales, or maintenance

Educational Objective

Graduates of the mechanical engineering technology program will:

- Be prepared for applied mechanical engineering positions that require specialized knowledge and skills in a particular area of mechanical engineering, such as mechanical design; manufacturing and automation; plant engineering; or heating, ventilation, air conditioning, and refrigeration (HVAC-R).
- Be aware of the impacts of their decisions on the health and safety of workers and on the environment, and of ethical and societal concerns.
- Solve problems that require critical thinking, use of teamwork, research, and communication skills.
- Understand the need for lifelong learning and continued professional development, including Professional Engineer registration.

Outcomes

Graduates of the Mechanical Engineering Technology program will demonstrate:

- an ability to apply knowledge of engineering materials, applied mechanics, thermal sciences, fundamentals of electricity, manufacturing processes, mechanical design, computer-aided engineering graphics, and electro-mechanical devices and controls.
- an ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology
- an ability to conduct, analyze and interpret experiments and apply experimental results to improve processes
- an ability to apply creativity in the design of systems, components, and processes
- an ability to function effectively on teams,
- an ability to identify, analyze and solve technical problems,
- an ability to communicate effectively,
- a recognition of the need for, and an ability to engage in lifelong learning,
- an ability to understand professional, ethical and social responsibilities,
- a respect for diversity and a knowledge of contemporary professional, societal and global issues.
- a commitment to quality, timeliness, and continuous improvement.
- technical expertise in engineering materials, statics, dynamics, strength of materials, solid and fluid mechanics, thermodynamics, industrial electronics.
- technical expertise with added depth in mechanical design and computer-aided design.
- added technical depth in at least one of the following (selected by the student): analysis and design of HVAC&R systems, including economic analysis and computerized energy evaluation methods; engineering materials; or manufacturing.
- ability to use calculus to solve applied physics problems in mechanics and thermodynamics.

The Faculty

Jeffrey Ray, *Professor and Dean*
    John F. Sweigart, *Associate Professor and Department Chair*

Joseph A. Como, Lecturer
Gregory M. Conrey, *Associate Professor*

See Energy Concentration Courses
See Engineering Design Graphics Concentration Courses
See Machine Design Concentration Courses
See Manufacturing Concentration Courses

Machine Design Concentration:

The Machine Design concentration is concerned with the application of fundamental principles of design to new and existing machines, machine parts and mechanical structures; the fabricating, testing and assembly of components into production of mechanical systems; and the operation of machines and mechanical equipment.

Graduates with a Machine Design concentration may be employed as designers of machinery and/or machine parts for the improvement of production operations and cost; supervisors of fabricating facilities, manufacturing plants, maintenance and repair shops; sales and service representatives of industrial and manufacturing firms.

The Machine Design Concentration requires the following course:
MET 3123 Dynamics of Machines

Select three additional courses which count toward the MET Major Electives from the following:
MET 3332 Rapid Design and Manufacture
MET 4112 Computer Aided Engineering & Analysis
MET 4124 Vibration and Advanced Dynamics
MET 4133 Advanced Engineering Materials
MET 4142 Mechanical Systems Design
MET 4341 Automation Systems and Controls

Manufacturing Concentration:

The Manufacturing concentration is concerned with both traditional manufacturing processes and advanced additive manufacturing technology. Students may obtain industry ready skills in CNC machining, tool design, 3D printing, 3D scanning, rapid tooling, PLC's, and automation.

Graduates may be employed in manufacturing industries such as: aircraft, automotive, biomedical, racing, heavy equipment, steel production and fabrication, plastics production, injection molding, and aluminum production. Titles for graduates may be: Manufacturing Engineer, Project Engineer, Tool Designer, Tooling Engineer, Process Engineer, Mold Designer, PLC programmer, and Automation Engineer.

The Manufacturing Concentration requires the following course:
MET 3331 Tool Design

Select three additional courses which count toward the MET Major Electives from the following:
MET 3332 Rapid Design and Manufacture
MET 4133 Advanced Engineering Materials
MET 4341 Automation Systems and Controls
MET 4342 Numerical Control of Machines
MGNT4135 Project Management

Engineering Design Graphics Minor

Students who wish to receive a minor in Engineering Design Graphics must take:

- EDG 1212 - Engineering Graphics II 4 *credits*

Select four additional courses from the following:

- EDG 3112 - Advanced Engineering Graphics 3 *credits*
- EDG 4111 - Surface Modeling 3 *credits*
- EDG 4222 - CAD Customization and Standards 3 *credits*
- EDG 4224 - Engineering Graphics for Manufacturing 3 *credits*
- MET 3332 - Rapid Design and Manufacture 3 *credits*
- MET 4112 - Computer Aided Engineering & Analysis 3 *credits*

- MATH 2254 - Calculus II 4 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- MATH 2253 - Calculus I 4 Credits (the extra hour is applied to Major Req.)
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course From the Literature Group 3 Credits
- Area C Group 2 - Take One Course From the Art and Culture Group 3 Credits
-

Note:

Note 1. MET majors are required to earn an overall 2.0 average in all courses designated as MET and ENGR.

Note 2. PHYS 1111, PHYS 1111L and PHYS 1112, PHYS 1112L may be substituted for PHYS 2211, PHYS 2211L and PHYS 2212, PHYS 2212L .

Note 3. The Free Elective may not be MATH 1111 .

Environmental Engineering Technology

Programs of Study

Major

Accounting, BS

- COMM 2400

- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 1112L - Introductory Physics Laboratory II 1 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- GEOL 1101K - Introductory Geosciences 4 Credits
- ENVS 2202K - Introduction to Environmental Science 4 Credits

Area E Social Sciences

Group 1: American Context (select one)
- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits

Area E-2: World History (select one)
- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits

Area E-3: Behaviorial Science (select one)
- ECON 1101 - Introduction to Economics 3 Credits
- ECON 2107 - Introduction to Economic Analysis 3 Credits
- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

Area E-4: Cultures and Societies (select one)
- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- POLS 2401 - Global Issues 3

- MGNT 1000 -

Major Courses

- ATT 1000 - Orientation 1 Credits
- ATT 1400 - Principles of Merchandising 3 Credits
- ATT 2301 - Apparel Computer-Aided Technical Design I 4 Credits
- ATT 3100 - Fashion Merchandising 3 Credits
- ATT 3505 - Fabric Formation and Design 3 Credits
- ATT 3600 - Apparel Analysis and Product Development 3 Credits
- ATT 3602 - Apparel Computer-Aided Technical Design II 4 Credits
- ATT 3800 - Fashion Forecasting, Data Analysis & Consumer Trends 3 Credits
- ATT 4444 - Quality Assurance for Textiles and Apparel 4 Credits
- ATT 4670 - Apparel/Textile Business Practices 3 Credits
- ATT 4750 - Advanced Design and Product Development 3 Credits
- ATT 4840 - Textile/Apparel Business Project 3 Credits
- IET 4810 - Ethics and Safety 1 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
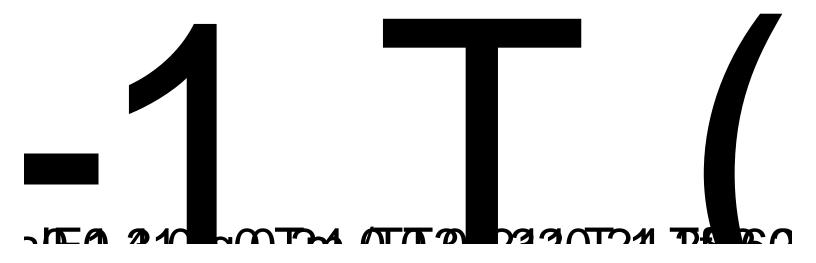
ATT Related Electives: Select four courses: * 12

- ARTS 2010 - Introduction to Drawing 3 Credits
-

USG Core

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 Take One Course from the Literature Group [See ARCH Matrix] 3 Credits
- Area C Group 2 Take One Course from the Art and Culture Group [See ARCH Matrix] 3 Credits
- MATH 1113 - Pre-calculus 4 Credits
- MATH 2253 - Calculus I 4 Credits
- Area D Lab Sciences (Two courses with Labs) – PHYS 1111L [required] – 8 Credits Hours Total
- Area E Group 1 American Context, One Course [See ARCH Matrix] 3 Credits
- Area E Group 2 World History, One Course [See ARCH Matrix] 3 Credits
- Area E Group 3 Behavioral Science, One Course [See ARCH Matrix] 3 Credits
- Area E Group 4 Cultures and Societies, One Course [See ARCH Matrix] 3 Credits

Design Foundation

- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- DFN 1000 - Orientation to Architecture (Summer Design Workshop) 2 Credits
- DFN 1001 - Design Foundation I 4 Credits
- DFN 1002 - Design Foundation II 4 Credits
- DFN 1241 - Design Communication I 2 Credits
- DFN 2003 - Design Foundation III 4 Credits
- DFN 2004 - Design Foundation IV 4 Credits
- DFN 1111 - Architecture Culture I: Early Civilizations & Medieval 3 Credits
- DFN 2112 - Architecture Culture II - The Renaissance through 1850 3 Credits
- DFN 2211 - Architecture Structures I

- ARCH 3212 - Architecture Structures III: Concrete and Lateral Loads 3 Credits
- ARCH 3313 - Environmental Technology II: Human Comfort, Sustainability and HVAC Systems: 3 Credits
- ARCH 3314 - Environmental Technology III: Natural & Artificial Lighting, Electrical Systems & Vertical Circulation: 3 Credits
- ARCH 4013 - Architecture Studio III 4 Credits
- ARCH 4014 - Architecture Studio IV 4 Credits
- ARCH 4114 - Architecture Cultures IV: 1945-Current 3 Credits
- ARCH 4224 - Environmental Technology IV: Codes and Technical Documentation 3 Credits
- ARCH 4411 - Design Cost Control 2 Credits
- ARCH 5313 - Professional Practice and Ethics 3 Credits
- ARCH 5593 - Thesis Prep/Research 2 Credits
- ARCH 5998F - Focus Studio 4 Credits
- ARCH 5999R - Thesis Research S/U Credits
- ARCH 5999T - Thesis Project 5 Credits
- Electives 17 Credits

Degree Program Total: 153

Biology, B.S.

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 -

Area D

- MATH 2253 - Calculus I 4 Credits
  Take any 2 of the courses below (with labs):
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
-

- PHYS 1112L - Introductory Physics Laboratory II 1 Credits

Note:

PHYS 2211/PHYS 2211L

- BIOL 4110 - Parasitology 3 Credits
- BIOL 4200K - Zoology 4

- BIOL 3400K -

Area C1 - Humanities (3 hours)

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132 - American Literature Mid 1800s to Present 3 Credits
- ENGL 2141 - Early Western Literature 3 Credits
- ENGL 2142 - Western Literature 1600s to Present 3 Credits
- ENGL 2300 - African-American Literature and Culture 3 Credits

Area C2 - Fine Arts (3 hours)

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D1 - Mathematics (4 hours)

- MATH 2240 - Survey of Calculus 3 Credits

Area D2 - Science (8 hours)

- ASTR 1000K - Introduction to the Universe 4 Credits
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- PHYS 1111 - Introductory Physics I 3 Credits

- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2212 - Principles of Physics II 3 Credits

Area E1 - Social Sciences - American Context (3 hours)

- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits

Area E2 - Social Sciences - World History (3 hours)

- HIST 1111

- COMM 2400 - Public Speaking 2 Credits
- ECON 2105 - Principles of Macroeconomics 3 Credits
- ECON 2106 - Principles of Microeconomics 3 Credits
- MGNT 2201 - Business Computer Applications 3 Credits

Required Courses

- MGNT 1000 - Orientation to Business 1 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 4405 - Operations Research - Concepts, Models and Methods 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3125 - Business Finance 3 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- MGNT 3145 - Legal Environment of Business 3 Credits
- MGNT 3205 - Management Information Systems 3 Credits
- MGNT 4115 - Human Resource Management 3 Credits
- MGNT 4125 - Technology and Public Issues 3 Credits
- MGNT 4135 - Project Management 3 Credits
- MGNT 4145 - International Management 3 Credits
- MGNT 4151 - Operations Management 3 Credits
- MGNT 4595 - Business Strategy 3 Credits

Business Administration Options

Concentration, Business Electives, Directed Electives, or a Minor in Another Discipline

Students in the Bachelor of Science in Business Administration program may complete the remaining 17 hours of credit by taking electives in a concentration (management, marketing, management of information systems), directed electives, or by completing a minor in another field. At least three courses must be at the 3000-level or above.

Option 1: Concentration

Students may complete 12 hours (four courses) in Accounting, Management, Marketing, or MIS by completing four electives in the selected area (see the elective lists that follows). At least three courses must be at the 3000-level or above.

Option 2: Business Electives

Students may complete 12 hours of elective credit from all of the business electives. At least three courses must be at the 3000-level or above.

Option 3: Directed Electives

Management Information Systems Concentration Electives (12 Credits)

- IT 1113 - Programming Principles 3 Credits
- MGNT 3500 - Database Management 3 Credits
- MGNT 4100 - Business Systems Analysis and Design 3 Credits
- MGNT 4140 - Management of Networks and Telecommunications 3 Credits

Marketing Concentration Electives (12 Credits)

- MGNT 3210 - Professional Selling and Customer Relationship Management 3 Credits
- MGNT 3224 - Business Marketing 3 Credits
- MGNT 3228 - Market Research 3 Credits
- MGNT 4103 - Marketing Management 3 Credits
- MGNT 4903 - Special Topics in Marketing

Business Management, BAS

The Bachelor of Applied Science degree is designed to cap designated associate degree programs. Admission to this program requires completion of an associate of applied science or associate of applied technology degree in Business Management or Marketing from a SACS accredited school in the Technical College System of Georgia. The program covers the common professional component in Business Administration with additional courses to fulfull the requirements of Areas A through E of the core. This coursework will prepare a candidate for a supervisory role in business or industry.

Area A - Essentials Skills

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits

Area B - Institutional Options (4 hours)

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

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Area C

- Group 1 -

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C1 - Course in Literature 3 Credits
- Area C2 - Course in Art and Culture 3 Credits
- Area D

Degree Program Total: 120

Civil Engineering Technology, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 Take One Course from the Literature Group 3 Credits
- Area C Group 2 Take One Course from the Art and Culture Group 3 Credits
- Area D CHEM 1211, CHEM 1211L and PHYS 2211, PHYS 2211L 8 Credits
- Area E Group 1 American Context 3 Credits
- Area E Group 2 World History 3 Credits
-

- CET 3430L

- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- ENGR 2214 - Engineering Mechanics –

Computer Engineering Technology, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)
- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F)
- MATH 2254 - Calculus II 4 Credits
- MATH 2335 - Numerical Methods I 3 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- TCOM 2010 - Technical Writing 3 Credits
- Area C Group 1 Take One Course from the Literature Group 3 Credits
- Area C Group 2 Take One Course from the Art and Culture Group 3 Credits
- Area E Group 1 American Context 3 Credits
- Area E Group 2 World History 3 Credits
- Area E Group 3 Behavioral Science 3 Credits
- Area E Group 4 Cultures and Societies 3 Credits
- ECET 1001 - Orientation 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- ECET 1012 - Design Fundamentals 2 Credits
- ECET 1101 - Circuits I 4 Credits
- ECET 1200 - Digital I 4 Credits
- ECET 2111 - Circuits II 4 Credits
- ECET 2300 - Electronics I 4 Credits
- ECET 2210 - Digital II 4 Credits
- ECET 2310 - Electronics II 4 Credits
- ECET 3220 - Digital III 4 Credits
- ECET 3400 - Data Communications 4 Credits
- ECET 3600 - Test Engineering 4 Credits
- ECET 3410 - High Frequency Systems 4 Credits
- ECET 3701 - Embedded PCs 4 Credits
- ECET 3710 - Hardware Programming and Interfacing 4 Credits
- ECET 3810 - Applications of C++, JAVA and HTML 3 Credits
- ECET 4610 - Control Systems 4 Credits
- EDG 1210 - Survey of Engineering Graphics 2 Credits
- CpET Electives 11 Credits

Degree Program Total: 128

Note:

* PHYS 1111/PHYS 1111L and PHYS 1112 /PHYS 1112L may be substituted for PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L .

CpET majors are required to earn a "C" or better in their ECET courses, except one "D" in a 3000 or 4000 level non-prerequisite course may be used for graduation purposes. A grade of "C" or better is required in the project-based capstone course.

CpET Electives

Embedded Systems (take 2 of the following courses)

Graduate will specialize in the design and implementation of smart devices used in products ranging from audio to medical

Students must earn a C or better in all the major courses (CSE, CS, SWE, and CGDD).

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2254 - Calculus II 4 Credits
- MATH 2345 - Discrete Mathematics 3 Credits
- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 Take One Course From the Literature Group 3 Credits
- Area C Group 2 Take One Course From the Art and Culture Group 3 Credits
- Area D See your advisor before you select science courses 8 Credits
- Area E Group 1 American Context 3 Credits
- Area E Group 2 World History 3 Credits
- Area E Group 3 Behavioral Science 3 Credits
- Area E Group 4 Cultures and Societies 3 Credits
- CSE 1301 Programming & Problem Solving I 4 Credits
- CSE 1302 Programming & Problem Solving II 4 Credits
- CSE 1002 - Introduction to the Computing Disciplines 2 Credits
- CSE 3642 - Professional Practices and Ethics 2 Credits
- CS 3224 - Computer Organization & Architecture 4

- SWE 4663 - Software Project Management 3 Credits

Simulation-Informatics

- CSE 3153 - Database Systems 3 Credits
- CS 4253 - Distributed Computing 3 Credits
- CGDD 4703 -

- CS 3123 - Programming Language Concepts 3 Credits
- CSE 3153 - Database Systems 3 Credits
- CS 3224 - Computer Organization & Architecture 4

This program is likely to be of great interest to those who pursue the BSCS program and are interested in entering the job market with a high degree of preparedness by completing the requirements for a Master's degree in Software Engineering. On top of a strong CS foundation, graduates from this combined program will be trained in software project management, an in-depth understanding of requirements, design, testing, support, metrics, etc. and the processes of software development and management. Students can start taking MSSWE core graduate classes right away,

- Area E3 - Course in Behavioral Science 3 Credits
- Area E4 - Cultures and Societies 3 Credits
- EDG 2160 - Civil Graphics and Computer Aided Drafting 3 Credits
- ENGR 2214 - Engineering Mechanics – Statics 3 Credits
- ENGR 3131 - Strength of Materials 3 Credits
- ENGR 3132 - Strength of Materials Lab 1 Credits
- ENGR 3324 - Project Cost Analysis 4 Credits
- ENGR 3343 - Fluid Mechanics 3 Credits
- CE 1000 - Orientation to Engineering and Surveying Professions 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- CE 3201 - Structural Analysis 3 Credits
- CE 3501 - Materials for Civil & Construction Engineering 3 Credits
- CE 3502 - Materials for Civil & Construction Engineering Lab 1 Credits
- CE 3701 - Geotechnical Engineering 3 Credits
- CE 3702 - Environmental Engineering 3 Credits
- CE 4177 - Transportation Engineering 3 Credits
- CE 4178 - Highway Design and Construction 3 Credits
- CE 4703 - Engineering Hydrology 3 Credits
- CE 4800 - Senior Project 3 Credits
- CM 3160 -

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C:

- Group 1 - Take One Course from the Literature Group 3 Credits
- Group 2 - Take One Course from the Art and Culture Group 3 Credits

Area D: Laboratory Sciences

- Group 1 - Any Two Lab Sciences (PHYS 1111, PHYS 1111L required and CHEM 1211, CHEM 1211L recommended) *See Note 2 for PHYS 1111, PHYS 1111L 8 Credits
- PHYS 1111 - Introductory Physics I 3 Credits recommended for Area D– See Note 2
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- Group 2 - MATH 2240 -

* PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L may be substituted for PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L

EET majors are required to earn a "C" or better in their ECET courses, except one "D" in a 3000 or 4000 level non-prerequisite course may be used for graduation purposes. A grade of "C" or better is required in the project-based capstone course.

EET Electives

Students may wish to focus their EET electives in a particular area of Electrical Engineering Technology. Suggested choices in the areas of biomedical, communications, digital, power, and telecommunications are listed below:

Biomedical

- ECET 4820 - Communications Networks and the Internet 4 Credits

Power

- ECET 4510 - Power System Analysis 4 Credits
- ECET 4520 - Industrial Distribution Systems, Illumination, and the NEC 4 Credits
- ECET 4530 - Industrial Motor Control 4 Credits
- ECET 4540 - Introduction to Power Electronics 4 Credits
- ECET 4560 - Electric Drives 4 Credits

Telecommunications

- ECET 3810 - Applications of C++, JAVA and HTML 3 Credits
- ECET 4820 - Communications Networks and the Internet 4 Credits
- ECET 4840 - Advanced Telecommunications 4 Credits
- ECET 4850 - Telecommunications Project 4 Credits
- ECET 4860 - Network Security 4 Credits

Electrical Engineering Technology - Biomedical Engineering Technology Option, BS

The ECET department offers a Biomedical Engineering Technology Option under the Electrical Engineeering Technology (EET) degree.

In addition to the above required courses, Students are required to take ECET 4050 - Biomedical Capstone (Project or Internship) as well as at least one Technical Elective in the Biomedical Engineering Technology area.

Electrical Engineering, BS

Requirements

- •• ENGL 1101 - English Composition I 3 Credits
- •

Required Area F Foundations Courses (9 Credits)

- COMM 2000 - Business Communication 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- TCOM 2020 - Intro to Professional & Technical Communication 3 Credits

Area F Required Research Methods Course (3 Credits; Choose One)

- TCOM 2030 - Research in Technical Communication 3 Credits or
- ENGL 2030 - Research in Professional and Critical Writing 3 Credits

Area F Electives (6 Credits; Choose Two)

- ARTS 2020 - History and Principles of Design 3 Credits
- ENGL 2xxx - Any 2000-level literature survey 3-6 Credits
- COMM 2065 - Cross-Cultural Communication 3 Credits
- COMM 2170 - Introduction to Media Studies 3 Credits
- COMM 2150 - Ethics and Communication 3 Credits
- Other coursework appropriate to major, as approved by the department (3 credits max) 3 Credits
- Any foreign language, 2001 or higher 3 Credits

Bas

Professional Writing and Communication (15 Credits)

- COMM 3035 - Organizational Communication 3 Credits
- COMM 3040 - Health Communication 3 Credits
- COMM 3050 - Journalism 3 Credits
- COMM 3150 - Public Relations Practice 3 Credits
- ENGL 3010 - Science Writing 3 Credits
- ENGL 3015 - Environmental Writing 3 Credits
- ENGL 3025 - Creative Writing Workshop 3 Credits
- ENGL 3035 - Problems in Language 3 Credits
- ENGL 3040 - Article and Essay Workshop 3 Credits
- ENGL 3081 - Studies in Genre 3 Credits
- ENGL 3082 -

International Studies (15 Credits)

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- MATH 2253 - Calculus I 4 Credits (extra hour added to core Area F)

Area E:

- Take one course from each Social Science Social Science group (E1, E2, E3, E4) 12 Credits

- CET 4330 - Solid Waste Management 3 Credits
- CET 4110 - Ethics of Engineering 1 Credits
- CET 4120 - Senior Design and Engineering Documentation 3 Credits
- POLS 3401 - Environmental Law and Policy 3 Credits
- MATH MAJOR COURSES: Excess from AREA A 1 Credits
- CM 4710 - Construction Safety 4 Credits
- ENVS 3100K - Soil & Water Science 4 Credits

Take minimum of 6 hours from major electives listed below:

- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MET 3400 - Thermodynamics and Heat Transfer 3 Credits
- SET 3240 - Hydraulic Structures 3 Credits
- BIOL 3300K - Ecology 4 Credits
- CHEM 3150K - Environmental Chemistry 4 Credits
- CET 4340 - Air Pollution Control 3 Credits

Degree Program Total: 123

- STS 2400 - Science, Technology, and Society 2 Credits
- COMM 2400 - Public Speaking 2 Credits

Area C

- Group 1 -

- BIOL 3300K - Ecology 4 Credits
- BIOL 4200K - Zoology <u>OR</u> BIOL 4440K - Botany 4 Credits
- CHEM 2511K -

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- Sciences - Lab Science* Note 1 8 Credits
- MATH 2253 - Calculus I 4 Credits

Area E

- Group 1 - American Context 3 Credits
- Group 2 - World History 3 Credits
-

Required Courses

- IET 2227 - Introduction to Statistics 3 Credits
- IET 2449 - Logistics and Supply Chain Management 3 Credits
- IET 3320 - Advanced Logistics 3 Credits

- IET 3511 - Sustainability Engineering 3 Credits or
- IET 3620 - Warehousing Systems 3 Credits

- IET 4405 - Operations Research - Concepts, Models and Methods 3 Credits
- MGNT 4115 - Human Resource Management 3 Credits
- MGNT 4151 - Operations Management 3 Credits

Total: 21

Students who successfully complete the Concentration with a grade of "C" or better in each course will be awarded a Green Belt Certificate.

Concentration in Quality Principles

The primary objective of the Concentration in Quality Principles is to provide training and education to students interested in quality system principles, methodology, elements and standards.

Required Courses:

- IET 3339 - Statistical Quality Control 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 3403 - Advanced Statistics with Application 3 Credits
- IET 3407 - Six Sigma and Lean Manufacturing 3 Credits
- IET 3410 - Principles of Team Dynamics 3 Credits
- MGNT 4135 - Project Management 3 Credits
- MGNT 4151 - Operations Management 3 Credits

Total: 21

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take one course from the Literature Group 3 Credits
- Area C Group 2 - Take one course from the Art and Culture Group 3 Credits
- Area D - Any two lab-based science courses 8 Credits
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- MATH 1113 - Pre-calculus 4 Credits
- CSE 1301 Programming and Problem Solving I 4 Credits
- MATH 2345 - Discrete Mathematics 3 Credits
- IT 1324 - Advanced Programming Principles 4 Credits
- CSE 3642 - Professional Practices and Ethics 2 Credits
- CSE 3153 - Database Systems 3 Credits
- IT 3123 - Hardware/Software Concepts 3 Credits
- IT 3203 - Introduction to Web Development 3 Credits
- IT 3223 - Software Acquisition and Project Management 3 Credits
- IT 3423 - Operating Systems Concepts & Administration 3 Credits
- IT 3883 - Advanced Applications Development 3 Credits
- IT 4323 - Data Communications & Networks 3 Credits
- IT 4823 - Information Security Administration & Privacy 3 Credits
- CSE 1002 - Introduction to the Computing Disciplines 2 Credits

Choose two from the following:

- IT 4123 - Electronic Commerce 3 Credits
- IT 4203 - Advanced Web Development 3 Credits
- IT 4153 - Advanced Database 3 Credits
- IT 4333 - Network Configuration & Administration 3 Credits
- IT 4683 - Management of Information Technology and Human Computer Interaction 3 Credits
- IT 4723 IT Policy and ET Q q -4its

Technical Block (AAS major courses) 37 Credits

Students may receive up to 37 technical block (major courses from the AAS degree) - 7 hours will count in AREA F and 30 hours in the technical block remainder.

Degree Program Total: 122

- CSE 1002 - Introduction to the Computing Disciplines 2 Credits

Technical Block (AAS major courses) 37 Credits

7 hours go into AREA F and 30 additional tech block hours are transferred

Degree Program Total: 122

Information Technology, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)

- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F) or
- MATH 2240 - Survey of Calculus 3 Credits

-

- IT 3503 - Foundations of Health Information Technology 3 Credits
- IT 4513 - Electronic Health Record Systems 3 Credits
- IT 4523 - Clinical Processes and Workflows: Analysis and Redesign 3 Credits
- IT 4533 - Health Information Security and Privacy 3 Credits
- IT 4903 - Special Topics in Information Technology 3 Credits

Mobile and Web Track

- IT 3203 - Introduction to Web Development 3 Credits
- IT 4203 -

- MATH 1401 - Intro to Statistics 3 Credits (Available from WebBSIT participating institutions or through eCore®)
- WBIT 2000 - The Enterprise and IT 3 Credits
- WBIT 2300 - Discrete Mathematics for IT 3 Credits
- WBIT 2311 - Programming and Problem Solving II Credits

Required Core Courses (42 Credits)

-

- Pre-law
- Public policy
- The military
- The non-profit sector
- The transportation industry
- The travel industry

Requirements

Core Areas A through E

Area A: Essential Skills (9 credits)

Grade of C or better requied in the courses used to satisfy this requirement. Freshmen must complete Area A by the time they have attempted 30 semester hours of course work.

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
  (or other math as specified in the SPSU core)

Area B: Institutional Options (4 credits)

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

- PHYS 1211K - Principles of Physics I (ECORE) 4 Credits
- PHYS 2211 - Principles of Physics I 3 Credits

Satisfies the Global Perspectives overlay. Choose ONE of the following (POLS 2401 is required in Area F and may not

- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D - Science, Mathematics, and Technology (12 hours)

- MATH 1113 - Pre-calculus 4 Credits
  Take any two courses of the following (course must have a lab that is taken concurrently)
- ASTR 1000K - Introduction to the Universe 4 Credits
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211K - Principles of Chemistry (ECORE) 4 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212K - Principles of Chemistry II (ECORE) 4 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 1112L - Introductory Physics Laboratory II 1 Credits

Area E1 - Social Sciences - American Context (3 hours)

- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits
  HIST 2911 (1 credit hour) may be required for students who ha

- MGNT 4145 - International Management 3 Credits
- MGNT 4595 - Business Strategy 3 Credits

Option 1 and Option 2

Bachelor of Arts - Management majors may select Option 1 or Option 2 to complete in addition to the required courses.

Option 1 -

The goal of the partnership between SPSU and the TCSG schools is to provide the opportunity for degreed graduates from the technical schools of Georgia to complete a Bachelor's degree in approximately 60 semester credits which in equivalent to about two years as a full time student.

All required major courses to complete the BAS in Manufacturing Operations program are offered totally online by SPSU faculty. All general education requirements are also offered on-line through the university system called E-core.

The BAS Manufacturing Operations program prepares students in the areas of manufacturing, logistics and operations through an industry-driven curriculum encompassing manufacturing processes, quality principles, engineering economy, work measurement and facilities layout.

Companies traditionally who hire SPSU graduates include such leaders as Shaw Industries, Delta Airlines, Georgia Power, Mohawk Industries, Lockheed Martin and UPS.

Since each TCSG program is different, the website http://iet.spsu.edu/BAS.html outlines the articulation of each program to SPSU.

Further information on the TCSG and SPSU program can also be found at http://tcsg.spsu.edu/.

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits

- Group 1 - American Context 3 Credits
- Group 2 - World History 3 Credits
- Group 3 - Behavioral Science 3 Credits
- Group 4 - Cultures and Societies 3 Credits

Area F

- Technical Block - Up to 17 Semester Hours 17 Credits
- Major Technical Block - Up to 21 Semester Hours 21 Credits

Major Courses

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- IET 3322 - Work Measurement and Ergonomics 4 Credits
- IET 3339 - Statistical Quality Control 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 3424 - Engineering Economy 3 Credits
- IET 3511 - -

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
-

Requirements

- CHEM 1211 -

- MET 3123 - Dynamics of Machines 3 Credits
- MET 3331 - Tool Design 3 Credits
- MET 3402 - Thermodynamics II 3 Credits
- MET 4112 - Computer Aided Engineering & Analysis 3 Credits
- MET XXXX - Major Electives (For Concentration) 12 Credits
- Free Elective 3 Credits

Degree Program Total: 129

Note:

Note 1. MET majors are required to earn an overall 2.0 average in all courses designated as MET and ENGR.

Note 2. PHYS 1111, PHYS 1111L and PHYS 1112, PHYS 1112L may be substituted for PHYS 2211, PHYS 2211L and PHYS 2212, PHYS 2212L .

Note 3. The Free Elective may not be MATH 1111 .

Mechanical Engineering, BS
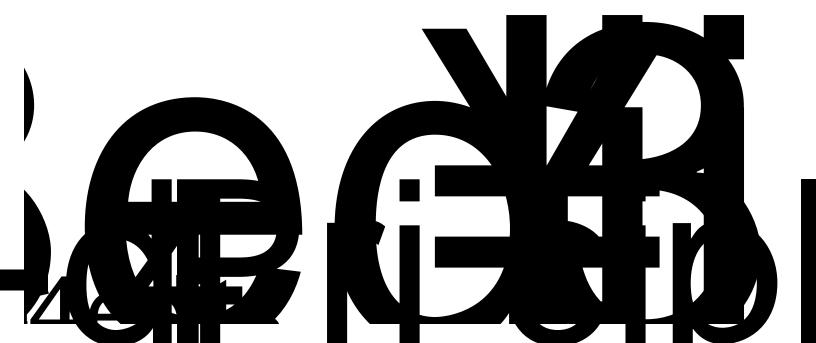
Requirements

- CHEM 1211 -

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**If student doesn't take ECON 2107 for Core E-3, the student must take SYE 3320 - Engineering Economics and Decision Analysis as a Technical Elective.

Mechatronics Engineering, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course, Literature Group 3 Credits
- Area C Group 2 - Take One Course, Art and Culture Group 3 Credits
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- ECON 2107 - Introduction to Economic Analysis 3 Credits (Recommended Area E-3)
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- MATH 2253 - Calculus I 4 Credits (the extra hour is applied to Major Req.)
- MATH 2254 - Calculus II 4 Credits
- MATH 2255 - Calculus III 4 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits

- ENGR 3132 - Strength of Materials Lab 1 Credits
- ENGR 3125 - Machine Dynamics & Vibrations 3 Credits
- MTRE 4000 - Advanced Controls 3 Credits
- MTRE 4200 - Robotics Analysis and Synthesis 3 Credits
- MTRE 4400 - Mechatronics System Design 4 Credits
- CSE 1301E - C++ Programming for Engineers 4 Credits
- Math Elective 3 Credits

Degree Program Total Hours: 130

- ARTS 4600 - Directed Study 3 Credits
- CGDD 3103 - Application Extension and Scripting 3 Credits
- CGDD 4003 - Digital Media and Interaction 3 Credits

- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- PHYS 2213 - Introduction to Thermal and Modern Physics 2 Credits
- PHYS 3210 - Mechanics I 4 Credits
- PHYS 3410K - Electronics Laboratory 2 Credits
- PHYS 3220 - Electromagnetism I 3 Credits
- PHYS 3500K - Introduction to Computational Physics 3 Credits
- PHYS 3710 - Modern Physics 4 Credits
- PHYS 3720L - Modern Physics Laboratory 1 Credits
- PHYS 4210 - Quantum Physics 4 Credits
- PHYS 4230 - Thermal Physics 4 Credits
- PHYS 4410K - Advanced Measurements Laboratory 2 Credits
- PHYS 4430 - Capstone Physics Project 1

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400

- ENGR 3125 - Machine Dynamics & Vibrations 3 Credits
- Free Electives 2 Credits
- ME 3501 -

- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course from the Literature Group 3 Credits
- Area C Group 2 - Take One Course from the Art and Culture Group 3 Credits
- Area D - Any Two Lab Sciences (Physics or Chemistry Recommended) 8 Credits
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)
- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F)
- MATH 2254 - Calculus II 4 Credits
- MATH 2255 - Calculus III 4 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- PHYS 2213 - Introduction to Thermal and Modern Physics 2 Credits
- PHYS 3210 - Mechanics I 4 Credits
- PHYS 3220 - Electromagnetism I 3 Credits
- PHYS 3410K Electronics Laboratory 2 Credits
- PHYS 3500K - Introduction to Computational Physics 3 Credits
- PHYS 3710 - Modern Physics 4 Credits
- PHYS 3720L - Modern Physics Laboratory 1 Credits
- PHYS 4210 - Quantum Physics 4 Credits
- PHYS 4230 - Thermal Physics 4 Credits
- PHYS 4410K - Advanced Measurements Laboratory 2 Credits

Physics Education

- EDUC 1101 - UTeach Step 1 1 Credits
- EDUC 1102 - UTeach Step 2 1 Credits
- EDUC 2010 - UTeach Knowing and Learning 3 Credits
- EDUC 2020 - Classroom Interactions 3 Credits
- EDUC 4030 - Project Based Instruction 3 Credits
- RSCH 3610 - Research Methods 3 Credits
- STS 3347 - Perspectives on Science and Math 3 Credits
- EDUC 4401 - Apprentice Teaching Seminar 1 Credits
- EDUC 4406 - Apprentice Teaching

Political Science, BS

There is a growing need for graduates in political science. The acquisition of methodological skills, coupled with an understanding of the political process at local, state, national and international levels, allows for employment in a variety of public and private venues where research techniques are highly prized. As well, the communication, analysis, and critical reasoning skills that our graduates obtain place them well in a competitive job market, where continual learning is essential and interpersonal and cross-cultural competencies are greatly needed.

While there are other political science programs offered in Georgia, SPSU's program will be unique in several respects:

- The SPSU program is highly quantitative in focus, offering students three additional quantitative courses in political science research methods and analysis beyond the norm required in other political science programs.
- The SPSU program offers students various inter-disciplinary course options through its Directed International Electives module.
- The SPSU program further establishes a strong international focus by encouraging students to become proficient in a second language.

Students who complete the program have the knowledge, skills, and real-world context to be productive and flexible in a rapidly changing workplace. Graduates with a bachelor's degree in political science find positions as committee staffers, budget analysts, communications consultants, research/policy analysts, corporate public affairs advisors, foreign service officers, writers/authors/political commentators, journalists, foundation staffers, lobbyists, marketing analysts, or public opinion analysts. Additionally, SPSU's program's training in the development of research, critical thinking, and communication skills will open opportunities in for-profit/non for

- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
  (or other math as specified in the SPSU core)

Area B: Institutional Options (4 credits)

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C: Humanities / Fine Arts (6 credits)

C-1: Literature (3 credits)

Choose ONE of the following:

- ENGL 2111 - Early World Literature 3 Credits Aster 2122
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132 - American Literature Mie

Required Courses in Major (36 credits):

- POLS 4063 - Political Issues in Electronic Government 3 Credits
- POLS 4101 - Political Economy of Post-Communist Transformation 3 Credits
- POLS 4201 - International Relations in the Americas 3 Credits
- POLS 4903 - Special Topics in Political Science 3 Credits
- PSYC 3101 - International Social Psychology 3 Credits
- PSYC 4000 - International Psychology 3 Credits
- PSYC 4600 - Conflict Resolution 3 Credits
- SPAN 3001 - Advanced Conversation 3 Credits
- SPAN 3002 - Grammar and Composition 3 Credits
- SPAN 3003 - Hispanic Cultures and Civilizations 3 Credits
- SPAN 3901 - Special Topics 1 to 5 Credits
- SPAN 3902 - Special Topics 1 to 5 Credits
- SPAN 3903 - Special Topics 1 to 5 Credits
- SPAN 3904 - Special Topics 1 to 5 Credits
- SPAN 3905 - Special Topics 1 to 5 Credits
- STS 4000 - International Issues in Science and Technology 3 Credits
- STS 4400 - Topical Studies in Science and Technology 3 Credits
  Up to 6 additional credits in Regional Studies:
- IS 4000 - Regional Studies - General 3 Credits
- IS 4001 - Regional Studies/Latin America 3 Credits
- IS 4002 -

officers and writers. Additionally, training in the development of research and writing skills will open opportunities in profit/non-profit business settings, public affairs, public health, sales and administrative support.

The concentrations offered are:

- Engineering Psychology (involves the science of applying an understanding of human behavior interacting with the design of systems and products that improve human performance)
- Industrial/Organizational Psychology (involves the science of applying an understanding of human behavior with improving productivity and the workplace quality)
- Clinical and Counseling Psychology (involves the science of applying an understanding of human behavior with an emphasis on mental disorders and their treatment)

Requirements

Core Areas A-E

Area A: Essential Skills (9 credits)

Grade of C or better required in the courses used to satisfy this requirement. Freshmen must complete Area A by the time they have attempted 30 semester hours of course work.

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
  (or other math as specified in the SPSU core)

Area B: Institutional Options (4 credits)

- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132 - American Literature Mid 1800s to Present 3 Credits
- ENGL 2141 - Early Western Literature 3 Credits
- ENGL 2142 - Western Literature 1600s to Present 3 Credits
- ENGL 2300 - African-American Literature and Culture 3 Credits

C-

- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- CHEM 1212K - Principles of Chemistry II (ECORE) 4 Credits
- ENVS 2200K - Geology 4 Credits
- ENVS 2202K - Introduction to Environmental Science 4 Credits
- GEOL 1101K - Introductory Geosciences 4 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 1112L - Introductory Physics Laboratory II 1 Credits
- PHYS 1211K - Principles of Physics I (ECORE) 4 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits

D-2: Math (Minimum of 3 credits)

- MATH 1113 - Pre-calculus 4 Credits

Choose ONE course (sociology recommended):

Choose and complete one of the concentrations below:

Engineering Psychology (28 credits)

Required Courses (22 credits):

Free Electives (7 credits)

Credit from any college-level course may be applied here.

Clinical and Counseling Psychology (28 credits)

Required Courses:

Grade of C or better required; take all of the following:

- PSYC 3015 - Theories of Personality 3 Credits
- PSYC 3230 - Abnormal Psychology 3 Credits
- PSYC 3301 - Psychological Testing 3 Credits

Concentration Electives (9 credits):

- SET 3260 -

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- Sciences - Lab Sciences 8 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area E

- Group 1 - AmeriS0f [CPre

- IET 2227 - Introduction to Statistics 3 Credits
- IET 2449 -

- IT 1113 -

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- Approved technical electives 12 Credits

Degree Program Total: 129

The Systems Engineering degree requires a grade of 'C' or better for any course with an ENGR or SYE prefix and ENGL 1101. A 'D' or better is required for any other course.

Technical Electives

Technical Electives can be 3000 and/or 4000 level courses from SYE, SWE, MTRE, ME, CE, EE or MATH. Other courses may be approved by the department chair. Students may focus their technical electives in Aerospace Engineering or Nuclear Engineering.

Technical Communication, BS

With our TCOM degree, you will learn much more than just how to use words effectively—you will have opportunities to learn document design, graphics, multimedia, web design, and video production as well

- COMM 2000 - Business Communication 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- TCOM 2020 - Intro to Professional & Technical Communication 3 Credits

Information Design (15 Credits)

- TCOM 3020 - Proposal Writing 3 Credits
- TCOM 3030 - Instructional Design 3

- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits *
- PHYS 2211L -

TCET majors are required to earn a "C" or better in their ECET courses, except one "D" in a 3000 or 4000 level non-prerequisite course may be used for graduation purposes. A grade of "C" or better is required in the project-based capstone course.

TCET Electives

- SYE 4801 - Aircraft Propulsion 3 Credits
- SYE 4802 - Helicopter Theory 3 Credits
- SYE 4804 - Special Topics Credits related to aerospace engineering 3 Credits

Minor Program Total: 15

Apparel and Textiles Minor

To be eligible for a minor in Apparel and Textile Technology, the student must complete 15 credit hours from the following courses with at least 9 hours of upper division course work.

Requirements

- ATT 1200 - Apparel Design Graphics 2 Credits
- ATT 1300 - International Sourcing 3 Credits
- ATT 1400 - Principles of Merchandising 3 Credits
- ATT 2301 - Apparel Computer-Aided Technical Design I 4 Credits
- ATT 3100 - Fashion Merchandising 3 Credits
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- DFN 1001 - Design Foundation I 4 Credits
- DFN 1002 - Design Foundation II 4 Credits
- DFN 2003 - Design Foundation III 4 Credits
- DFN 2004 - Design Foundation IV 4 Credits
- DFN 1241 - Design Communication I 2 Credits
- DFN 2242 - Design Communication II 2 Credits
- DFN 2311 - Environmental Tech I -Systems Selection and Materials 3 Credits
- DFN 2112 - Architecture Culture II - The Renaissance through 1850 3 Credits
- DFN 2211 - Architecture Structures I - Introduction to Structures 3 Credits

Minor Program Total: 29

Biology Minor

To be eligible for a minor in Biology, the student must complete:

- A minimum of 18 semester hours of BIOL or BIOC coursework
- 9 of the 18 hours in BIOL/BIOC must be above the 2199 level
- Students who use BIOL 2107/BIOL 2107L and/or BIOL 2108/BIOL 2108L to satisfy Core D requirements cannot use these courses to satisfy requirements of the minor

Business Minor

Students wishing to receive a minor in Business Administration must take:

ACCT 2101 - Principles of Financial Accounting

MGNT 3105 - Management and Organizational Behavior

Plus three additional business courses (9 hours), two of which must be upper division.

- You may not use MGNT 1000 to satisfy a requirement in the minor.
- Additionally, accounting courses beyond ACCT 2101 may not be used for the business minor.
- Students majoring in Accounting are not eligible for the minor in Business Administration.

Chemistry Minor

Requirements

- CHEM 1211 - Principles of Chemistry I 3 Credits

- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- CHEM 2511K - Organic Chemistry I 4 Credits
- CHEM 2512K - Organic Chemistry II 4 Credits
- 10 additional hours of upper division (3000 level or higher) Chemistry or Biochemistry courses.

Computer Game Design and Development Minor

To be eligible for a minor in Computer Game Design and Development, the student must complete the following courses with a grade of "C" or better. Any upper level (3000+) courses that are required in the major may not be used as credit for the minor. Other upper level CGDD courses may be used as substituted. Students must have at least 9 upper level CGDD hours not required for their major (CGDD courses taken as electives for your major bachelor degree can be used to complete the minor).

Minor in Game Design

- To provide students with fundamental programming skills.

Engineering Design Graphics Minor

Students who wish

To be eligible for a minor in Industrial Engineering Technology,

Students must complete the following three courses:

- IET 2227 - Introduction to Statistics 3 Credits
- IET 2305 - The Role of Industrial Engineering Technology in Industrial Systems 4 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits

And choose two courses from the following list:

- IET 2449 - Logistics and Supply Chain Management 3 Credits
- IET 3320 - Advanced Logistics 3 Credits
- IET 3322 - Work Measurement and Ergonomics 4 Credits
- IET 3339 - Statistical Quality Control 3 Credits
- IET 3403

- IT 1324 - Advanced Programming Principles 4 Credits or
- CSE 1302 - Programming & Problem Solving 2 4 Credits

- IT 3123 - Hardware/Software Concepts 3 Credits or
- CS 3224 -

- IS 4000 - Regional Studies - General 3 Credits
- IS 4001 - Regional Studies/Latin America 3 Credits
- IS 4002 - Regional Studies/Asia:China 3 Credits
- IS 4003 - Regional Studies/Asia:Japan 3 Credits
- IS 4004 - Regional Studies/Middle East 3 Credits
- IS 4005 -

- MGNT 4145 - International Management 3 Credits
- POLS 2401 - Global Issues 3 Credits
- POLS 3001 -

Total Program Hours: 15

Leadership and Organizational Communication Minor

After taking COMM 2500—Advanced Public Speaking and COMM 2150—Ethics and Communication, you will take only 9 more hours of coursework.6.9897 591.6cm BT 37 0 0 3726 048193737 84 Tm /TT (. I) -1 (f).24 0 0 0.24 92.25 664.56 cmBT 37

Management of Operations and Technology Minor

Mathematics Minor

To obtain a minor in Mathematics, the student must complete:

- MATH 2255
- An additional 14 semester hours of Mathematics courses at the 2300 level or higher

At least 9 of these additional 14 hours must be at the 3000 level or higher.

- POLS 1101 - American Government 3 Credits
- POLS 2401 -

Professional Writing Minor

Professional Writing

After taking COMM 2000, Business Communication, take only 12 more hours, 9 of which must be at the 3000 or 4000 level, to receive a Minor in Professional Writing. Your minor credential will be designated on your SPSU transcript provided you earn a C or better in each course.

Requirements

Required Courses:

- PSYC 1101 - Introduction to General Psychology 3

Quality Principles Minor

Students must complete the following courses:

- IET 2227 - Introduction to Statistics 3 Credits
- IET 3339 - Statistical Quality Control 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 3407 - Six Sigma and Lean Manufacturing 3 Credits

Grade of C or better required in the courses used to satisfy this requirement. Freshmen must complete Area A by the time they have attempted 30 semester hours of course work.

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits
  (or other math as specified in the University core)

Area B: Institutional Options (4 credits)

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 -

- GRMN 1002 - Elementary German II 3 Credits
- GRMN 2001 - Intermediate German I 3 Credits
- GRMN 2002 - Intermediate German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits
- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits

(or other math as specified in the University core)

Area E: Social Sciences (12 credits)

Group 1 Amerian Perspectives- (3 credits):

Satisfies the American Perspectives overlay. Any one of these courses, taken within the University System of Georgia, also satisfies the Legislative Requirement for US and Georgia Constitution and History. Students who fulfill this requirement with transfer credit from outside the USG will need to take HIST 2911 U.S. and Georgia Constitution and History to satisfy the Legislative Requirement for graduation.

Choose ONE of the following:
- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits

Group 2 Historical Perspectives (3 credits):

Choose ONE of the following:
- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits

Group 3 Behavioral Science Perspectives (3 credits):

Choose ONE of the following:
- ECON 1101 - Introduction to Economics 3 Credits

Elective Courses:

- At least one additional course in humanities (Area C) 3 Credits
- At least one additional course in social sciences (Area E) 3 Credits
- Any humanities, social science, math, lab science or any area F course from any program.

The Geographical Information Systems (GIS) Certificate program is designed to prepare students with a practical set of GIS marketable skills who have a background in GIS applications such as surveying, real estate, marketing, geography or business background. There are five courses required in the certificate program.

Required Courses (19 Credits)

- SURV 2110 - Introduction to Mapping 4 Credits
- SURV 3421 - Geographic Information Systems I 4 Credits
- SURV 4420 - Remote Sensing 4 Credits
-

- CM 3260 - Temporary Structures 3 Credits
- CM 4710 - Construction Safety 4 Credits

Subtotal: 3 Credits (minimum)

Certificate Program Total: 24 Credits (minimum)

Land Development Certificate

The Certificate in Land Development provides training and education to members of the real estate and land development field in construction and land development principles and practices. Students can complete the requirements in 3-

Certificate Program Total: 21 Credits (minimum)

Land Surveying Certificate

- IET 3320 - Advanced Logistics 3 Credits
- IET 3620 - Warehousing Systems 3 Credits
- IET 4405 - Operations Research - Concepts, Models and Methods 3 Credits
- MGNT 4115 - Human Resource Management 3 Credits
- MGNT 4151 - Operations Management

Required Courses:

- CM 2000 - Construction Graphics 3 Credits
- CM 3000 - Computer Applications in Construction 3 Credits

- CM 3110 - Residential and Light Construction Methods 3 Credits OR
- CM 3160 - Commercial and Heavy Construction Methods 3 Credits

- CM 4560 - Construction Project Management 3 Credits
- CM 3620 - Construction Finance and Feasibility 4 Credits

Subtotal: 11-12 Credits

Elective Courses:

- CM 3410 - Construction Quantity Surveying 3 Credits
- CM 3420 - Construction Estimating and Bid Preparation 4 Credits
- CM 4510 - Construction Scheduling 3 Credits
- CM 4760 - Construction and Real Property Law 3 Credits

Subtotal: 9+ Credits

Certificate Program Total: 20+ Credits

Quality Principles Certificate

The primary objective of the Certificate in Quality Principles is to provide training and education to members of the Industrial Engineering field in quality system principles, methodology, elements and standards. Students can complete the requirements in 3–4 semesters. These courses may also be applied toward completing a B.S. degree in Industrial Engineering technology upon acceptance to SPSU.

Admission Requirements:

Applicants must meet all undergraduate admission requirements.

Required Courses:

- IET 2227 -

Oral Proficiency Interview (OPI):

After all coursework is completed, student must take the American Council on the Teaching of Foreign Language OPI.

Total Program Hours: 9 credits beyond the minor

Course Descriptions

Accounting

Accounting

ACCT 2101 - Principles of Financial Accounting

ACCT 4535 - Accounting Information Systems

ACCT 4555 - Auditing and Assurance

ACCT 4560 - Intro to Federal Income Taxes

ACCT 4562 - Federal Taxation II

ACCT 4565 - Fraud Examination

ACCT 4568 - Accounting Software Applications

Anthropology

Anthropology

ANTH 1102 - Introduction to Anthropology

Apparel and Textile Technology

Apparel and Textile Technology

ATT 1000 - Orientation

ATT 1200 - Apparel Design Graphics

ATT 1300 - International Sourcing

ATT 1400 - Principles of Merchandising

ATT 4840 - Textile/Apparel Business Project

Architecture

Architecture

ARCH 39X1 - Special Topics

ARCH 39X2 - Special Topics

ARCH 39X3 - Special Topics

ARCH 39X4 - Special Topics

ARCH 49X1 - Directed Study

ARCH 49X2 - Directed Study

ARCH 49X3 - Directed Study

ARCH 49X4 - Directed Study

ARCH 2020 - Design Communication

ARCH 2030 - Global Sustainability Strategies

ARCH 2040 - History & Culture of Architecture

ARCH 2050 - Architectural Technology

ARCH 3011 - Architecture Studio I

ARCH 3012 - Architecture Studio II

ARCH 3060 - Design Laboratory I

ARCH 3070 - Design Laboratory II

ARCH 3113 - Architecture Culture III - 1850 through 1945

ARCH 3116 - Urban Planning and Design Theory

ARCH 3314 - Environmental Technology III: Natural & Artificial Lighting, Electrical Systems & Vertical Circulation:

ARCH 4013 - Architecture Studio III

ARCH 4014 - Architecture Studio IV

ARCH 4114 - Architecture Cultures IV: 1945-Current

ARCH 4224 - Environmental Technology IV: Codes and Technical Documentation

ARCH 4411 - Design 0 3Edio III

Arts

ARTS 290 - Special Topics

ARTS 2001 - Art Appreciation

ARTS 2002 - Drama Appreciation

ARTS 2003 - Music Appreciation

ARTS 2004 - History of Contemporary American Music

ARTS 2005 - University Bands

ARTS 2010 - Introduction to Drawing

ARTS 2020 - History and Principles of Design

ARTS 3000 - Visual Thinking

ARTS 3100 - History of New Media Arts

ARTS 3170 - Digital Photography

ARTS 4100 - Media Arts Studio

ARTS 4600 - Directed Study

ARTS 4800 - Senior Portfolio

Astronomy

Astronomy

ASTR 1000K - Introduction to the Universe

ASTR 1010K - Introduction to the Universe II

Biochemistry

Biochemistry

BIOC 3111K - Biochemistry I

BIOC 3112K - Biochemistry II

BIOC 3115K - Physical Biochemistry

BIOC 3901 - Special Topics

BIOC 3902 - Special Topics

BIOC 3903 - Special Topics

BIOC 3904 - Special Topics

BIOC 3905 - Special Topics

BIOC 4200 - Medicinal Chemistry and Drug Discovery

BIOC 4901 - Special Topics

BIOC 4902 - Special Topics

BIOC 4903 - Special Topics

BIOC 4904 - Special Topics

BIOC 4905 - Special Topics

Biology

Biology

BIOL 2050 - Fundamentals of Human Anatomy & Physiology I

BIOL 2050L - FUndamentals of Human Anatomy & Physiology Lab

BIOL 2051 - Fundamentals of Humany Anatomy & Physiology II

BIOL 2051L - Human Anatomy & Physiology Lab II

BIOL 2107 - Principles of Biology I

BIOL 2107L - Principles of Biology I Laboratory

BIOL 2108 - Principles of Biology II

BIOL 2108L - Principles of Biology II Laboratory

BIOL 2500K - Bioinformatics I - Tools & Databases

BIOL 2800 - Drug Development and Regulation

BIOL 3000K - Genetics

BIOL 3100K - Microbiology

BIOL 3200K - Applied Molecular Biology Laboratory

BIOL 3201 - Biophysics I

BIOL 3202 - Biophysics II

BIOL 3250K - Ecosystem Ecology

BIOL 3300K - Ecology

BIOL 3310K - Molecular Biology

BIOL 3400K - Cell Physiology

BIOL 3500 - Biostatistics

BIOL 3600 - Freshwater Biology

BIOL 3650 - Marine Biology

BIOL 3700K - Ichthyology

BIOL 4100K - Entomology

BIOL 4110 - Parasitology

BIOL 4200K - Zoology

BIOL 4300 - Virology

BIOL 4350K - Cell and Tissue Culture

BIOL 4400K - Human Physiology

BIOL 4410 - Immunology

BIOL 4420K - Advanced Immunology

BIOL 4430K - Animal Physiology

BIOL 4440K - Botany

BIOL 4460K - Human Anatomy

BIOL 4470 - Plant Physiology

BIOL 4480 - Evolution

BIOL 4510K - Bioinformatics II

BIOL 4550 - Cancer Biology

BIOL 4600K - Biotechnology

BIOL 4700 - Internship

BIOL 4900 - Special Topics

BIOL 4901 - Special Topics

BIOL 4902 - Special Topics

BIOL 4903 - Special Topics

BIOL 4904 - Special Topics

BIOL 4905 - Special Topics

Business, Marketing and Finance

Business, Marketing and Finance

MGNT 390x - Special Topics

MGNT 490x 5Special Topics

MGNT 1000 - Orientation to Business

MGNT 2201 - Business Compu (i) 9 (e) 4 (n) 3 (t) 8 (a) 4 (t) 8(i) 9 (o) 3 (n) 3 ( ) 9 (t) 8 (o) 3 ( )27 [(s)

MGNT 3145 - Legal Environment of Business

MGNT 3170 - Leadership

MGNT 3205 - Management Information Systems

MGNT 3210 - Professional Selling and Customer Relationship Management

MGNT 3224 - Business Marketing

MGNT 3228 - Market Research

MGNT 3231 - Management of Financial Institutions

MGNT 3500 - Database Management

MGNT 4075 - Healthcare Management

MGNT 4100 - Business Systems Analysis and Design

MGNT 4103 - Marketing Management

MGNT 4115 - Human Resource Management

MGNT 4125 - Technology and Public Issues

MGNT 4135 - Project Management

MGNT 4140 - Management of Networks and Telecommunications

MGNT 4145 - International Management

MGNT 4151 - Operations Management

MGNT 4185 - Technology Management

MGNT 4190 - Entrepreneurship

MGNT 4195 - Current Readings in Management of Technology and Operations

MGNT 4232 - Financial Planning and Capital Budgeting

MGNT 4233 - Investment Analysis and Portfolio Management

MGNT 4234 - International Finance

MGNT 4595 - Business Strategy

Chemistry

Chemistry

CHEM 1211 - Principles of Chemistry I

CHEM 1211K - Principles of Chemistry (ECORE)

CHEM 1211L - Principles of Chemistry I Lab

CHEM 1212 - Principles of Chemistry II

CHEM 1212K - Principles of Chemistry II (ECORE)

CHEM 1212L - Principles of Chemistry II Lab

CHEM 2510 - Survey of Organic Chemistry

CHEM 2511K - Organic Chemistry I

CHEM 2512K - Organic Chemistry II

CHEM 2601 - Chemical Literature

CHEM 3100K -

CHEM 4112L - Physical Chemistry II Lab

CHEM 4121 - Quantum Chemistry

CHEM 4411 - Inorganic Chemistry

CHEM 4412 - Main Group Inorganic Chemistry

CHEM 4413 - Transition Metal Chemistry

CHEM 4415 - Solid State Chemistry

CHEM 4511 - Advanced Organic Chemistry

CHEM 4901 - Special Topics

CHEM 4902 - Special Topics

CHEM 4903 - Special Topics

CHEM 4904 - Special Topics

Civil and Construction Engineering

Civil and Construction Engineering

CE 1000 - Orientation to Engineering and Surveying Professions

CE 3902 - Special Topics

CE 3903 - Special Topics

CE 4103 - Design of Steel Structures

CE 4105 - Foundation Design

CE 4177 - Transportation Engineering

CE 4178 - Highway Design and Construction

CE 4179 - Transportation Engineering Lab

CE 4202 - Steel and Concrete Design

CE 4703 - Engineering Hydrology

CE 4704 - Engineering Hydraulic Analysis and Design

CE 4705 - Advanced Soil Mechanics

CE 4706 - Pavement Engineering

CE 4707 - Design of Wood Structures

CE 4708 - Hazardous Waste Engineering

CE 4709 -

CET 2200 - Introduction to Structures

CET 3110 -

CET 3320 - Wastewater Collection and Treatment

CET 3320L - Wastewater Collection and Treatment Lab

CET 3410 - Soil Properties and Site Exploration

CET 3410L - Soil Properties Lab

CET 3420 - Geosynthetics

CET 3430L - Site Exploration and Field Testing Lab

CET 3510 - Traffic Analysis and Road Design

CET 3510L - Traffic Analysis and Road Design Lab

CET 3901 - Special Topics

CET 3902 - Special Topics

CET 3903 - Special Topics

CET 3904 - Special Topics

CET 4110 - Ethics of Engineering

CET 4120 - Senior Design and Engineering Documentation

CET 4130 - Special Inspections

CET 4210 - Computer Methods in Structures

CET 4220 - LFRD Steel Desig 0.01350 45 0 0 Tm /TT1.0 1 Tf [(Co) 2 (0 45 0 1.0 45 0 1.0 45 0 1.0 45

CET 4340 - Air Pollution Control

CET 4410 - Foundation and Retaining Wall Design

CET 4411 - FE Exam Preparation - Civil Discipline

CET 4418 - Engineering Geology

CET 4420 - Earth Dam and Levee Design

CET 4430 - Slope Stability

CET 4450 - Pavement Design and Maintenance

CET 4484 - Hydraulic Analysis and Design

CET 4510 - Transportation Network Design

SET 3240 - Hydraulic Structures

SET 3250 - Structural Loads and Connections

SET 3260 - Masonry and Timber Design

SET 4240 - Structural Rehabilitation

SET 4250 - Bridge Design

Communication

Communication

COMM 1000 - Integrated Skills for International Students

COMM 1050 - Holistic Communication for Non-Native Speakers of English

COMM 1100 - Human Communications

COMM 2000 - Business Communication

COMM 2030 - Research for the Humanities & Social Sciences

COMM 2065 - Cross-

COMM 2400 - Public Speaking

COMM 2500 -

COMM 3250 - Newspaper Practicum

COMM 4100 - Small Group Communication

COMM 4200 - New Media Leadership Strategies

COMM 4600 - Directed Study

Computer Game Design and Development

Computer Game Design and Development

CGDD 490x - Special Topics in Game Design and Development

CGDD 2002 - Fundamentals of Game Design

CGDD 4303 - Educational and Serious Game Design

CGDD 4313 - Designing Online Learning Content and Environments

CGDD 4603 - Production Pipeline and Asset Management

CGDD 4703 - Data Modeling and Simulation

CGDD 4803 - Studio

CGDD 4814 - Capstone

Computer Science

Computer Science

CS 2123 - C Programming

CS 2223 - Digital Design

CS 3123 - Programming Language Concepts

CS 3223 - Computer Architecture

CS 3224 - Computer Organization & Architecture

CS 3243 - Operating Systems

CS 3424 - Data Structures

CS 3693 -

CS 4283 - Real-Time Systems

CS 4363 - Computer Graphics and Multimedia

CS 4413 - Algorithm Analysis

CS 4423 - Logical Foundations of Computer Science

CS 4523 - Artificial Intelligence

CS 4533 - Digital Image Processing

CS 4543 - Neural Computation

CS 4553 - Expert Systems

CS 4893 - Computer Science Capstone

CS 4901 - Special Topics

CS 4902 - Special Topics

CS 4903 - Special Topics

CS 4904 - Special Topics

CSE 4983 - CSE Computing Internship

Construction Management

Construction Management

CM 710 - Construction Safety

CM 1000 - Orientation to Construction and Development

CM 2000 - Construction Graphics

CM 2901 - Special Topics

CM 2902 - Special Topics

CM 2903 - Special Topics

CM 2904 - Special Topics

CM 3000 - Computer Applications in Construction

CM 3040 - Building Information Modeling Applications I

CM 3110 - Residential and Light Construction Methods

CM 3160 - Commercial and Heavy Construction Methods

CM 3180

CM 3430 - Construction Estimating for Development

CM 3480 - Mechanical and Electrical Systems Estimating

CM 3500 -

Design Foundation

Design Foundation

DFN 1000 -

DFN 2311 - Environmental Tech I -Systems Selection and Materials

Economics

Economics

ECON 1101 - Introduction to Economics

ECON 2105 - Principles of Macroeconomics

ECON 2106 - Principles of Microeconomics

ECON 2107 - Introduction to Economic Analysis

Education

Education

EDUC 1101 - UTeach Step 1

EDUC 1102 - UTeach Step 2

EDUC 1103 - UTeach Integrated Steps 1 and 2

EDUC 2010 - UTeach Knowing and Learning

EDUC 2020 - Classroom Interactions

EDUC 4030 - Project Based Instruction

EDUC 4401 - Appr In 1 ( ) 9 (T]TJ 1 ( )2 ( ) 6 (h 3 (r) 2 (n ET (IgET (I) 9 (S]TJ 1 ( ) 9 (Ii) (ET (I):

ECET 1200 - Digital I

ECET 2000 -

ECET 3400 - Data Communications

ECET 3410 - High Frequency Systems

ECET 3500 - Survey of Electric Machines

ECET 3600 - Test Engineering

ECET 3620 - Signals and Systems Analysis

ECET 3640 - Introduction to Systems Engineering and Robotics

ECET 3701 -

ECET 3904 - Special Topics

ECET 4010 - Virtual Biomedical Instrumentation

ECET 4020 - Biomedical Imaging

ECET 4030 - Bioinformatics and Telemedicine

ECET 4040 - Biometrics

ECET 4050 - BMET Capstone (Internship)

ECET 4050 - BMET Capstone (Project)

ECET 4320 - Active Filters

ECET 4330 - Audio Technology

ECET 4420 - Communications Circuit Applications

ECET 4431 - Wireless Communications Systems

ECET 4432 - Fiber-optic Communications Systems

ECET 4450 - RF Electronics

ECET 4510 - Power System Analysis

ECET 4520 - Industrial Distribution Systems, Illumination, and the NEC

ECET 4530 - Industrial Motor Control

ECET 4540 - Introduction to Power Electronics

ECET 4550 - Alternate Energy

ECET 4560 - Electric Drives

ECET 4610 - Control Systems

ECET 4630 - Digital Signal Processing

ECET 4710 - Network Programming and Interfacing

ECET 4720 - Distributed Microcontrollers and PCs

ECET 4730 - VHDL and Field Programmable Gate Arrays

ECET 4820 - Communications Networks and the Internet

ECET 4830 - Telecommunications Management

ECET 4840 - Advanced Telecommunications

ECET 4850 - Telecommunications Project

ECET 4860 - Network Security

ECET 4901 - Special Topics

ECET 4902 - Special Topics

ECET 4903 - Special Topics

ECET 4904 - Special Topics

Electrical Engineering

Electrical Engineering

EE 1000 - Orientation and Foundations of Electrical Engineering

EE 2301 - Circuit Analysis I

EE 2302 - Circuit Analysis II

EE 2401 - Semiconductor Devices

EE 2501 - Digital Logic Design

EE 3401 - Engineering Electronics

EE 3501 - Microprocessors & Embedded Systems

EE 3601 - Electric Machines

EE 3605 - Electromagnetics

EE 3701 - Signals and Systems

EE 3702 - Communication Systems

EE 4201 -

EE 4800 - Senior Project

Engineering

Engineering

ENGR 2214 - Engineering Mechanics – Statics

ENGR 2710 - Engineering Calculations

ENGR 3122 - Dynamics

ENGR 3125 - Machine Dynamics & Vibrations

ENGR 3131 - Strength of Materials

ENGR 3132 - Strength of Materials Lab

ENGR 3305 - Data Collection and Analysis in Engineering

ENGR 3324 - Project Cost Analysis

ENGR 3343 - Fluid Mechanics

ENGR 3345 - Fluid Mechanics Laboratory

ENGR 4402 - Engineering Ethics

ENGR 4421 - Instruments and Controls

Engineering Design Graphics

Engineering Design Graphics

EDG 1210 - Survey of Engineering Graphics

EDG 1211 - Engineering Graphics I

EDG 1212 - Engineering Graphics II

EDG 2160 - Civil Graphics and Computer Aided Drafting

EDG 4224 - Engineering Graphics for Manufacturing

Engineering Technology

Engineering Technology

ENGT 3124 - Strength of Materials with Applications

English

English

ENGL 1000 - Writing Skills for International Students

ENGL 1101 - English Composition I

ENGL 1102 - English Composition II

ENGL 2030 - Research in Professional and Critical Writing

ENGL 2111 - Early World Literature

ENGL 2112 - World Literature Mid-1600s to Present

ENGL 2120 - British Literature Early to Present

ENGL 2121 -

ENGL 3025 - Creative Writing Workshop

ENGL 3030 - English Grammar for Professional Writing

ENGL 3035 - Problems in Language

ENGL 3040 - Article and Essay Workshop

ENGL 3045 - New Media Writing

ENGL 3050 - Journalism

ENGL 3100 - Rhetoric: History, Theory, and Practice

ENGL 3180 - Film as Literature

ENGL 4010 - Publishing for New Media

ENGL 4170 - Media and Narrative

ENGL 4800 - Project Portfolio

ENGL 4901 - Special Topics

ENGL 4902 - Special Topics

ENGL 4903 - Special Topics

Environmental Science

Environmental Science

ENVS 2200K - Geology

ENVS 2202 - Environmental Science (ECORE)

ENVS 2202K - Introduction to Environmental Science

ENVS 3000 - Environmental Science Seminar

ENVS 3100K - Soil & Water Science

ENVS 3150K - Environmental Toxicology

ENVS 3250 - Natural Resource Management

ENVS 3350 - Oceanography

ENVS 3450 - Conservation Biology

ENVS 4000K - Wetlands and Mitigation

ENVS 4120 - Senior Project

ENVS 4500 - Environmental Science Internship

Ethnic Studies

Ethnic Studies

ES 1100 - Ethnic Studies

ES 2100 - Ethnic Literature and Cultures

French

French

FREN 1001 - Elementary French I

FREN 1002 - Elementary French II

FREN 2001 -

FREN 2002 - Intermediate French II

Geography

Geography

GEOG 1101 - Introduction to Human Geography

GEOG 3101 - World Regional Geography

GEOG 4101 - Geographic Information Systems

German

German

GRMN 1001 - Elementary German I

GRMN 1002 - Elementary German II

GRMN 2001 - Intermediate German I

GRMN 2002 - Intermediate German II

HIST 3301 - Diplomatic and Military History since 1815

HIST 3401 - Modern Social and Cultural History Twentieth Century

HIST 3501 - Colonization and Rebellion in the Trans-Atlantic World

HIST 3601 - History of the Pacific Rim

HIST 3801 - Contemporary World History since 1945

HIST 3901 - Special Topics

HIST 3902 - Special Topics

HIST 3903 - Special Topics

HIST 4901 - Special Topics in the History of Science and Technology

HIST 4902 - Special Topics in the History of Science and Technology

HIST 4903 - Special Topics in History Science and Technology

Honors

Honors

HNRS 2001 - Introduction to Honors Research

HNRS 3002 - Honors Research

HNRS 3102 - Honors Peer Mentoring

HNRS 3203 - Honors Teaching Assistance

HNRS 3301 - Honors Interdisciplinary Seminar

HNRS 4400 - Honors Thesis

Industrial Engineering Technology

Industrial Engineering Technology

IET 1000 - Orientation

IET 2227 - Introduction to Statistics

IET 2305 - The Role of Industrial Engineering Technology in Industrial Systems

IET 2449 - Logistics and Supply Chain Management

IET 3320 - Advanced Logistics

IET 3322 - Work Measurement and Ergonomics

IET 3339 - Statistical Quality Control

IET 3356 - Quality Concepts and Systems Design

IET 3403

IET 4460 - Warehouse Operations

IET 4475 - Senior Project

IET 4478 - Senior Internship

IET 4500 - Technical Sciences Survey

IET 4555 - Auditing and Assurance

IET 4810 - Ethics and Safety

IET 4901 - Special Topics

IET 4902 - Special Topics

IET 4903 - Special Topics

IET 4904 - Special Topics

IET 4905 - Special Topics

Information Technology

Information Technology

IT 1113 -

IT 4203 - Advanced Web Development

IT 4213 - Mobile Web Development

IT 4323 - Data Communications & Networks

IT 4333 - Network Configuration & Administration

IT 4423 - Unix/Linux

IT 4513 - Electronic Health Record Systems

IT 4523 - Clinical Processes and Workflows: Analysis and Redesign

IT 4533 - Health Information Security and Privacy

IT 4673 - Virtual IT Systems

IT 4683 - Management of Information Technology and Human Computer Interaction

IT 4713 - Business Intelligence Systems

IT 4723 - IT Policy and Law

IT 4823 -

WBIT 3010 - Technical Communication

WBIT 3110 --Systems Analysis and Design

WBIT 3111 - Information Technology Project Management

WBIT 3200 - Database Design, Development and Deployment

WBIT 3400 - Introduction to Multimedia

WBIT 3410 - Web Applications Development

WBIT 3500 - Architecture and Op 4 ( ) 4 (N2) 4 (c) 4(t) 8240.24 1ur N2l (o) ut

WBIT 4120 - Human-Computer Interaction

WBIT 4520 - Information Security

WBIT 4601 - Customer Relationship Management

WBIT 4602 - IT Strategy Seminar

WBIT 4610 - IT Policy and Law

International Studies

International Studies

IS 1000 - International Studies Orientation

IS 3600 - Comparative Culture

IS 3901 - Special Topics in International Studies

IS 3902 - Special Topics in International Studies

IS 4000 - Regional Studies - General

IS 4001 - Regional Studies/Latin America

IS 4002 - Regional Studies/Asia:China

IS 4003 - Regional Studies/Asia:Japan

IS 4004 - Regional Studies/Middle East

IS 4005 - Regional Studies/Russia/Eastern Europe

Mathematics

MATH 1101 - Introduction to Mathematical Modeling

MATH 1111 - College Algebra

MATH 1113 - Pre-calculus

MATH 1401 - Intro to Statistics

MATH 1501 - Calculus I

MATH 2240 - Survey of Calculus

MATH 2253 - Calculus I

MATH 2254 - Calculus II

MATH 2255 - Calculus III

MATH 2335 - Numerical Methods I

MATH 2345 - Discrete Mathematics

MATH 2901 - Special Topics

MATH 2902 - Special Topics

MATH 2903 - Special Topics

MATH 2904 - Special Topics

MATH 2905 - Special Topics

MATH 3261 -

MATH 3321 - Introductory Real Analysis II

MATH 3336 - Numerical Methods II

MATH 3396 - Combinatorics

MATH 3496 - Number Theory

MATH 3596 - Topology

MATH 3696 - Geometry

MATH 3796 - Symbolic Computation

MATH 3901 - Special Topics

MATH 3902 - Special Topics

MATH 3903 - Special Topics

MATH 3904 - Special Topics

MATH 3905 - Special Topics

MATH 4406 - Differential Equations II

MATH 4407 - Vector Analysis

MATH 4417 - Functions of a Complex Variable

MATH 4440 - Abstract Algebra

MATH 4451 - Capstone Mathematics Project

MET 3902 - Special Topics

MET 3903 - Special Topics

MET 3904 - Special Topics

MET 3905 - Special Topics

MET 4112 - Computer Aided Engineering & Analysis

MET 4124 - Vibrations and Advanced Dynamics

MET 4133 - Advanced Engineering Materials

MET 4141 - Machine Design I

MET 4142 - Mechanical Systems Design

MET 4341 - Automation Systems and Controls

MET 4342 - Numerical Control of Machines

MET 4351 - Manufacturing System Design Project

MET 4902 - Special Topics

MET 4903 - Special Topics

MET 4904 - Special Topics

MET 4905 - Special Topics

Mechanical Engineering

Mechanical Engineering

ME 1001 - Introduction to Mechanical Engineering

ME 3101 - Materials Science and Engineering

ME 3201 - Product Realization

ME 3410 - Thermodynamics

ME 3440 - Heat Transfer

ME 3501 - Dynamic Systems & Control Theory

ME 3901 - ME Special Topics Course

ME 3902 - ME Special Topics Course

ME 3903 - ME Special Topics Course

ME 4141 - Machine Design I

ME 4201 - Senior Design I

ME 4202 - Senior Design II

ME 4250 - Computer Aided Engineering

ME 4403 - Heat Transfer and Thermodynamics Lab

ME 4501 - Vibrations & Controls Lab

ME 4801 - URME (Undergraduate Research in Mechanical Engineering)

ME 4802 - URME (Undergraduate Research in Mechanical Engineering)

ME 4803 - URME (Undergraduate Research in Mechanical Engineering)

ME 4804 -

Modern Foreign Languages

MFLA 190x - Special Topics

MFLA 290x - Special Topics

Physics

Physics

PHYS 1111 - Introductory Physics I

PHYS 1111L - Introductory Physics Laboratory I

PHYS 1112 - Introductory Physics II

PHYS 1112L - Introductory Physics Laboratory II

PHYS 1211 - Principles of Physics I

PHYS 1211K - Principles of Physics I (ECORE)

PHYS 2211 - Principles of Physics I

PHYS 3901 - Special Topics

PHYS 3902 - Special Topics

PHYS 3903 - Special Topics

PHYS 3904 - Special Topics

PHYS 3905 - Special Topics

PHYS 4200 - Mechanics II

PHYS 4210 - Quantum Physics

PHYS 4230 - Thermal Physics

PHYS 4240 - Solid State Physics

PHYS 4250 - Quantum Theory of Two-State Systems

PHYS 4410K - Advanced Measurements Laboratory

PHYS 4430 - Capstone Physics Project

PHYS 4901 - Special Topics

PHYS 4902 - Special Topics

PHYS 4903 - Special Topics

PHYS 4904 - Special Topics

PHYS 4905 - Special Topics

Political Science

Political Science

POLS 1101 - American Government

POLS 2100 - Introduction to Research Methods

POLS 2401 - Global Issues

POLS 2903 - Special Topics in Political Science

POLS 3001 - Comparative Politics

POLS 4101 - Political Economy of Post-Communist Transformation

POLS 4201 - International Relations in the Americas

POLS 4301 - International Political Economy

POLS 4801 - Capstone: Political Science Practicum

POLS 4903 - Special Topics in Political Science

Psychology

Psychology

PSYC 390x - Special Topics

PSYC 1000 - Orientation to Psychology

PSYC 1101 - Introduction to General Psychology

PSYC 2011 - Cognitive Psychology

PSYC 2100 - Basic Quantitative Research Methods for Psychology

PSYC 2270 - Engineering Psychology

PSYC 2271 - Clinical and Counseling Psychology

PSYC 2273 - Foresic Psychology

PSYC 2401 - Psychology of Diversity

PSYC 2903 - Special Topics in Psychology

PSYC 3000 - Junior Seminar

PSYC 3010 - Educational Psychology

PSYC 3015 - Theories of Personality

PSYC 3020 - Physiological Psychology

PSYC 3031 - Experimental Psychology

PSYC 3040 - Motivation and Emotion

PSYC 3101 - International Social Psychology

PSYC 3230 - Abnormal Psychology

PSYC 3265 - Human Sexuality

PSYC 3301 - Psychological Testing

PSYC 3305 - Developmental Psychology

PSYC 4000 - International Psychology

PSYC 4050 - History and Systems of Psychology

PSYC 4130 - Psychology of Aging

PSYC 4220 - Psychoactive Drugs, Behavior, and Society

PSYC 4600 - Conflict Resolution

PSYC 4800 - Psychology Capstone Sf (-) 74371.0 1 Tf ( ) Tj ET Q q 0.2. 7BT 37 0 0 74371.0 1 Tf (

SOCI 1101 - Introduction to Sociology

Software Engineering

Software Engineering

SWE 1301 - Software Development I

SWE 1302 - Software Development II

SWE 2313 - Introduction to Software Engineering

SWE 2642 - Professional Practices and Ethics

SWE 3613 - Software System Engineering

SWE 3623 - Software Systems Requirements

SWE 3624 - Software Engineering

SWE 3633 - Software Architecture & Design

SWE 3643 -

SWE 3683 - Embedded Systems Analysis & Design

SWE 3843 - Embedded Systems Construction and Testing

SWE 4324 - User-

SWE 4904 - Special Topics

Spanish

Spanish

SPAN 1001 - Elementary Spanish I

SPAN 1002 - Elementary Spanish II

SPAN 2001 - Intermediate Spanish I

SPAN 2002 - Intermediate Spanish II

SPAN 3001 - Advanced Conversation

SPAN 3002 - Grammar and Composition

SPAN 3003 - Hispanic Cultures and Civilizations

SPAN 3901 - Special Topics

SPAN 3902 - Special Topics

SPAN 3903 - Special Topics

SPAN 3904 - Special Topics

SPAN 3905 - Special Topics

SPAN 4001 - Profescm BT 0.0123 Tc45p (Pr) 5 (o)u BT 45 0 0m BT 45 0 0 45 0 0Tm /TT1. (o) 1 (p)

Surveying and Mapping

SURV 2110 - Introduction to Mapping

SURV 3903 - Special Topics

SURV 3904 - Special Topics

SURV 4110 - Geographical Information Systems (GIS) Practice

SURV 4410 - Surveying Computations and Adjustments

SURV 4415 - Geodetic Surveying Methods

SURV 4420 - Remote Sensing

SURV 4422 -

SURV 4902 - Special Topics

SURV 4903 - Special Topics

SURV 4904 - Special Topics

Systems Engineering

Systems Engineering

SYE 2100 - Systems Analysis and Design

SYE 2600 - Applications of Probability

SYE 3100 - Systems Reliability and Maintainability

SYE 3120 - Contemporary Technological Systems: Design, Analysis, and Architecture

SYE 3200 - Human Machine Systems

SYE 3300 - Program Management

SYE 3320 - Engineering Economics and Decision Analysis

SYE 3400 - Engineering Optimization I: Deterministic Decision Models

SYE 3501 - Fundamentals of Nuclear Engineering

SYE 3502 - Radiation Detection and Measurement

SYE 3600 - Statistics with Applications

SYE 3650 - Process Engineering and Improvement

SYE 3700 - Manufacturing and Production Systems

SYE 3710 - Logistics and Supply Chain Systems

SYE 3801 - Aerodynamics (Aeronautic Elective)

SYE 3802 - Aircraft Design and Performance (Aeronautic Elective)

SYE 3803 - Fundamentals of Avionics

SYE 3850 - Experimental Design

SYE 4400

TCOM 2010 - Technical Writing

TCOM 2020 - Intro to Professional & Technical Communication

TCOM 2030 - Research in Technical Communication

TCOM 3010 - Science Writing

TCOM 3015 - Environmental Writing

TCOM 3020 - Proposal Writing

TCOM 3030 - Instructional Design

TCOM 3045 - Fundamentals of Information Design

TCOM 3145 - Social Media Integration

TCOM 3400 - Foundations of Design for the Web

TCOM 3430 - Foundations of Graphics

TCOM 3901 - Special Topics

TCOM 3902 - Special Topics

TCOM 3903 - Special Topics

TCOM 4000 - Professional Editing

TCOM 4035 -

TCOM 4600 -

PHIL 2010 - Introduction to Philosphy

SPSU 1001 - Hitch-hiker's Introduction to SPSU

Faculty

Southern Polytechnic State University Senior Administration

Dr. LISA A. ROSSBACHER - President

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

Dr. RON DEMPSEY - Vice President for Advancement

> Ph.D., Southern Baptist Theological Seminary
> M.A., University of Louisville
> M.Div., Southern Baptist Theological Seminary

Dr. RON R. KOGER - Vice President for Student and Enrollment Services

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

Dr. BILL PRIGGE - Vice President for Business and Finance

> Ph.D., University of Nebraska
> M.B.A., University of North Carolina at Greensboro
> B.S., University of Alabama

Ms. MARY T. PHILLIPS - Executive Assistant to the President

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

Dr. ZVI SZAFRAN - Vice President for Academic Affairs

> Ph.D., University of South Carolina
> B.S., Worcester Polytechnic Institute

President Emeritus

> Dr. Steve R. Cheshier

Cole, C. Richard

Dean and Professor

M.Arch., Harvard University
B.C.E., Villanova University
Reg.Arch., A.I. A., N.C.A.R.B. Certificate Holder

Ph.D., Georgia Institute of Technology
M.Sc., University of London
Dipl., Polytechnic University of Tirana, Albania

Tango, Robert

Associate Professor

M.A., University of Florida
B.A., University of Florida

Uddin, M. Saleh

Professor

Ph.D., University of Sheffield, United Kingdom
M.Arch., Kent State University
B.Arch., Bangladesh University of Teaching and Technology

Voroneanu, Manole

Assistant Professor

Prof. M.Arch., Miami University

Professor and Department Chair

Ph.D., Georgia Institute of Technology
M.S., Asian Institute of Technology, Bangkok Thailand
B.S., NED University of Engineering and Technology, Karachi, Pakistan

Department of Construction Management Faculty Emeriti

Hall, Allan J., Professor Emeritus

Faculty of the School of Arts and Sciences

Nelson, Thomas A.

Professor and Dean, School of Arts and Sciences

Ph.D., Southern Illinois University
M.A., Southern Illinois
University
B.S., Illinois State
University

Department of Biology, Chemistry Faculty

Beach, Michael B.

Associate Professor

Ph.D., University at Albany
B.S., University at Albany

Duff, Jack L.

Senior Lecturer

M.S., Georgia Institute of Technology
B.S. University of West Florida at Pensacola

Ferreira, Daniel R.

Assistant Professor

Ph.D., University of Connecticut
M.S., University of Connecticut
B.S., University of California at
Davis

Hesser, Marcia W.

Lecturer

Ph.D., Miami University (Ohio)
M.S., Miami University (Ohio)
B.S., Roger Williams University

Szafran, Zvi

Professor and Vice President of Academic Affairs

Ph.D., University of South Carolina
B.S., Worcester Polytechnic Institute

Tseng, Tsai-Tien

Assistant Professor

Ph.D., University of Illinois at Urbana-Champaign
M.S., University of California, San Diego
B.S., University of California, San Diego

Weand, Matthew P.

Assistant Professor

Ph.D., University of Kentucky
M.S., Ohio University
B.S., Tufts University

Zhou, Wei

Associate Professor

Ph.D., Texas Tech University
M.S., Tongji University (China)
B.S., Tongji University (China)

Department of Physics Faculty

Kulasiri, Ratnappuli

Assistant Professor

Ph.D., University of Cincinnati
B.S., University of Colombo, Sri Lanka

Garofalo, David

Lecturer

Ph.D., Drexel University
M.S., Drexel University
B.S., Drexel University

Patterson, Philip E.

Associate Professor and Department Chair

Ph.D., University of Georgia
M.S., Clark Atlanta University

Burnett, William, Professor Emeritus
Lahiri, Jayanti, Professor Emeritus
Oxford, Earl, Professor Emeritus
Robinson, George, Professor Emeritus
Scales, Sam, Professor Emeritus
Tambe, Balkrishna, Professor Emeritus
Tippens, Paul, Professor Emeritus
Tucker, Lee, Professor Emeritus

Department of English, Technical Communication and Media Arts Faculty

Anderson, Kami

Assistant Professor

Ph.D., Howard University
M.A., American University

Ph.D., Florida State University
M.A., Florida State University
B.A., Florida State University

Harr-Lagin, Kelsey

Instructor

M.A., University of Northern Iowa
B.A., University of Northern Iowa

Hopper, Keith B.

Associate Professor

Ph.D., Georgia State University
M.A., Boise State University
B.S., Boise State University

Logan, Monique

Instructor

M.S., Southern Polytechnic State University
B.A., Spelman College

McCool, Matthew

Assistant Professor

Ph.D., New Mexico State University
M.A., University of Illinois-Springfield
B.A., University of Illinois-Springfield

Nunes, Mark

Professor and Department Chair

Ph.D., Emory University
M.A., University of Virginia
M.A., Columbia University
B.A., Columbia University

Oliver, Betty

Professor

Ph.D., University of Georgia
M.A., University of Georgia
B.A., University of Georgia

Omidvar, Iraj

Associate Professor

Ph.D., Iowa State University of Science and Technology

Stephenson, Charlotte

Instructor

M.A., University of Alabama
B.A., Judson College

Stevens, Mark K.

Associate Professor

Ph.D., Florida State University
M.A., Florida State University
B.A., University of South Florida

Weaver, Melissa

Lecturer

M.S., University of Tennessee, Knoxville
B.A., University of Tennessee, Knoxville

Werner, Ava

Lecturer

M.F.A., Pratt Institute
B.A., Framingham State College

Werner, James P.

Assistant Professor

Ed.D., Columbia University Teacher's College
M.F.A., Kent Institute of Art and Design
B.A., San Diego State University

Department of English, Technical Communication and Media Arts Faculty Emeriti

Hays, Robert, Professor Emeritus
Morrow, Susan, Professor Emerita
Pfeiffer, William S., Professor Emeritus
Rainey, Kenneth, Professor Emeritus
Tumlin, John S., Professor Emeritus
Wess, Robert, Professor Emeritus

Department of Mathematics Faculty

Acharya, Keshav

Lecturer

Ph.D., University of Oklahoma
M.S., Norwegian University of Science and Technology, Norway
M.A., Tribhuvan University, Nepal
B.A., Tribhuvan University, Nepal

Adhikari, Dhruba

Assistant Professor

Ph.D., University of South Florida
Diploma, International Centre for Theoretical Physics, Italy
M.Sc., Tribhuvan University, Nepal
B.Sc., Tribhuvan University, Nepal

Cao, Zhu

Assistant Professor

Ph.D., University of Illinois at Urbana-Champaign

Ph.D., Northwestern University
M.S., University of Texas at Dallas
B.S., University of Texas at Dallas

Vandenbussche, Jennifer

Assistant Professor

Ph.D., University of Illinois at Urbana-Champaign
M.A., University of Illinois at Urbana-Champaign
B.M., State University of New York at Potsdam

Wang, Long L.

Associate Professor

Ph.D., University of Wisconsin
M.S., University of Wisconsin

Professor and Department Chair

Ph.D., University of Wisconsin-Madison
M.A., University of Wisconsin-Madison
B.S., Boise State University
B.A., Boise State University

Soiset, Roger

Lecturer

M.A., California State University, Long Beach
B.A., The Citadel

Ph.D., Auburn University
M.SwE., Auburn University
B.A., Auburn University

Li, Lei.

Associate Professor

Ph.D., Georgia State University
M.S., Georgia State University
B.S., China University of Mining & Technology

Lo, Chia-Tien (Dan)

Associate Professor

Ph.D., Illinois Institute of Technology

Ph.D., Georgia State University
M.S., Georgia Institute of Technology

Ph.D., University of Edinburgh, United Kingdom
M.S., University of Nijmegen, Netherlands
B.A., University of Nijmegen, Netherlands

Rutherfoord, Rebecca

Professor

D.BA., Vanderbilt University
M.S., Tennessee Technological University
B.S., Tennessee Technological University

Department of Business Administration Faculty

Ph.D., Florida International University
M.S.E.E., Florida International University
B.S.E.E., University of the West Indies

Davis, Kim

Associate Professor

M.S.E.T., Rochester Institute of Technology
B.E.E.T., Southern Polytechnic State University
P.E., California

Preethy, Adimathara P.

M.S.M.E., Georgia Institute of Technology
B.S.M.E., Auburn University

Scherrer, Christina R.

Assistant Professor

Ph.D., Georgia Institute of Technology
M.S., Georgia Institute of Technology
B.S.., Georgia Institute of Technology

Thomas, Walter, Jr.

Professor Emeritus

Ph.D., Georgia State University;
M.B.A., Georgia State University
M.S., Georgia Institute of Technology

M.S.M.E., Michigan Technological University
B.S.M.E., Michigan Technological University
P.E., Georgia

Khazaei, Ali

Associate Professor

Ph.D., Tehran Azad University
M.Sc., University of Tehran
B.Sc., University of Tehran

Nasseri, Simin

Assistant Professor

Ph.D., University of Sydney, Australia
M.E., Iran University of Science and Technology
B.Sc., Iran University of Science and Technology

Currin, Thomas R.

Professor and Dean, School of Engineering

Ph.D., University of South Florida, Tampa, FL
M.S., University of South Florida, Tampa, FL
B.S., Hebei Agricultural University, Hebei, China

Yee, Tien M.

Assistant Professor

Ph.D., University of Kentucky, Lexington, KY
M.S., University of Kentucky, Lexington, KY
B.S., University of Kentucky, Lexington, KY

Department of Electrical and Mechatronics Engineering Faculty

Crimm, Lance

Professor and Department Chair

Ph.D., University of South Florida
M.S., Columbia University
B.S., Columbia University
B.S., Dillard University

Lee, Hoseon

Assistant Professor

Ph.D., Georgia Institute of Technology
M.S., Georgia Institute of Technology
B.S., Georgia Institute of Technology

Ma, Kuo-Sheng

Assistant Professor

Ph.D., Industrial & Systems Engineering, NC A&T SU
M.S., Industrial & Systems Engineering, NC A&T SU
B.S., Industrial & Systems Engineering, NC A&T SU

Veazie, David

Professor

Ph.D., Georgia Institute of Technology
M.S.M.E., Georgia Institute of Technology
B.S.M.E., Minor Math/Physics, Southern University – Baton Rouge, Louisiana

Chen, Li

Librarian, Associate Professor

M.L.I.S., University of Western Ontario
B.A., Beijing Foreign Language University

Kim, Hyun Chu "Leah"

Librarian-Assistant Professor

M.L.I.S., Valdosta State University
B.A., University of Washington - Seattle

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

Mills, Joyce White

Librarian, Associate Professor and Library Director

Ph.D., Florida State University
D.A.S.L., Emory University
M.S.L.S., University of Wisconsin
B.A., Spelman College

Vincent, Steven F.

Librarian, Associate Professor

M.A., Western Michigan University
M.S.L., Western Michigan University
A.B., University of Michigan

Wimer, Aaron

Librarian-Assistant Professor

State Colleges

Abraham Baldwin Agricultural College	Tifton
Atlanta Metropolitan State College	Atlanta
Bainbridge State College	Bainbridge
College of Coastal Georgia	Brunswick
Dalton State College	Dalton
Darton State College	Albany
East Georgia State College	Swainsboro
Georgia Gwinnett College	Lawrenceville
Georgia Highlands College	Rome
Georgia Perimeter College	Decatur
Gordon College	Barnesville
Middle Georgia State College	Macon
South Georgia State College	Douglas

Athletics

Athletics

Southern Polytechnic State University is a member of the National Association of Intercollegiate Athletics (NAIA) and the Southern States Athletic Conference (SSAC). The University competes in four intercollegiate sports, including men's soccer in the fall, men's and women's basketball during the winter, and baseball in the spring. All four of the Southern Polytechnic teams have enjoyed much success over the years. The squads use the nickname "Hornets" and the school colors are forest green, white and black.

Athletic Facilities

Southern Polytechnic features several on-campus athletic facilities. An athletic training room located in the Hornets Nest, the University's gymnasium, serves the medical needs of all student-athletes.

The men's soccer team plays at Neusoft Technologies Field, located on the far west side of campus. Locker room space and a building for storage are near the field.

Serving as the home court for the Southern Polytechnic men's and women's basketball squads is the Hornets Nest, located on the south side of campus.The athletic training room is just a few steps from the court and locker room space for Southern Poly's teams, visiting squads and game officials is nearby.

Sir Walter J. Kelly Sr. Memorial Field, located near the gymnasium on the far south end of campus, is where the Hornets play baseball. The facility features new seating, a new scoreboard and a new press box. An indoor facility,

Counselors provide outreach programs on many topics

- Developing self-confidence
- Establishing valuable contacts for letters and references
- Gaining practical experience in the work environment
- Helps students in their career decision making process
- Provides substantial support for education expenses

Cooperative Education (Co-op)

Co-

Students must be fully authorized to work in the United States to participate in the co-op program.

- Obtain the skills and knowledge to be employable in positions that utilize their computing education.
- Demonstrate an understanding of a minor field of study, where computing can be applied.

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Comii(s) 2 (s) 2 (i) 6 (t) m BT 41 0 0 41 0 0 27 30T6.0 1 Tf ( ) Tj ET Q q 0.24 0 0 0.24 270.5757

- TCOM 2030 - Research in Technical Communication 3 Credits or
- ENGL 2030 - Research in Professional and Critical Writing 3 Credits

Area F Electives (6 Credits; Choose Two)

- ARTS 2020 - History and Principles of Design 3 Credits
- ENGL 2xxx - Any 2000-level literature survey 3-6 Credits
- COMM 2065 - Cross-Cultural Communication 3 Credits
- COMM 2170 - Introduction to Media Studies 3 Credits
- COMM 2150 - Ethics and Communication 3 Credits
- Other coursework appropriate to major, as approved by the department (3 credits max) 3 Credits
- Any foreign language, 2001 or higher 3 Credits

Basic Required Courses in the Major (15 Credits)

- ENGL 3030 - English Grammar for Professional Writing 3 Credits
- ENGL 3100 - Rhetoric: History, Theory, and Practice 3 Credits
- TCOM 3400 - Foundations of Design for the Web 3 Credits
- TCOM 3430 - Foundations of Graphics 3 Credits
- COMM 4100 - Small Group Communication 3 Credits
- ENGL 4800 - Project Portfolio 3 Credits
- English and Professional Communication Electives Take any 3000-level or higher ARTS, COMM, ENGL, or TCOM Course, or other courses (not to exceed 6 credits) as approved by the department. 12 Credits
- Free Electives 15 Credits
- Concentration Courses (Professional Writing and Communication or Media, Communication and Culture) or Minor Courses (International Studies or Spanish) 15 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits

Professional Writing and Communication (15 Credits)

- COMM 3035 - Organizational Communication 3 Credits
- COMM 3040 - Health Communication 3 Credits
- COMM 3050 - Journalism 3 Credits
- COMM 3150 - Public Relations Practice 3 Credits
- ENGL 3010 - Science Writing 3 Credits
- ENGL 3015 - Environmental Writing 3 Credits
- ENGL 3025 -

- ENGL 3040 - Article and Essay Workshop 3 Credits
- ENGL 3081 - Studies in Genre 3 Credits
- ENGL 3082 - Science & Literature 3 Credits
- ENGL 4010 - Publishing for New Media 3 Credits
- TCOM 3020 - Proposal Writing 3 Credits
- TCOM 4000 - Professional Editing 3 Credits
  or

Media, Communication, and Culture (15 Credits)

- ARTS 3000 - Visual Thinking 3 Credits
- COMM 3060 - Media, Culture, and Society 3 Credits
- COMM 3065 - International Communication 3 Credits
- COMM 3160 - Media Theory and Practice 3 Credits
- ENGL 3045 - New Media Writing 3 Credits
- ENGL 3180 - Film as Literature 3 Credits
- ENGL 4170 - Media and Narrative 3 Credits

- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits

- MGNT 4145 - International Management 3 Credits
- MGNT 4595 - Business Strategy 3 Credits

Option 1 and Option 2

Bachelor of Arts - Management majors may select Option 1 or Option 2 to complete in addition to the required courses.

Option 1 - *Select 5 courses (15 hours) from Group 1 and Group 2*
- Group 1: Select 3-5 courses of the following courses (9-15 hours)
- MGNT 4103 - Marketing Management 3 Credits
- MGNT 4125 - Technology and Public Issues 3 Credits
- MGNT 4135 - Project Management 3 Credits
- MGNT 4185 - Technology Management 3 Credits
- MGNT 4075 - Healthcare Management 3 Credits
- MGNT 4190 - Entrepreneurship 3 Credits
- MGNT 4195 - Current Readings in Management of Technology and Operations 3 Credits
  MGNT 4203 Special Topics in Management

- Group 2 - (select 0 to two of the fo(sMG4 2 cm BT( ) T0 37 0 00TMG4 r Tm /TT3.0hburs))--2 ( )1 (cu) 3 (p) 3 ( ) 7 (2)] TJ 32t

The Teacher Education Program at SPSU provides students with strong, mentored experiences in the schools, a thorough knowledge of the teaching strategies and research on learning science and mathematics, and a nationally renowned teacher preparation program. This program allows students to build confidence in working with a variety of students in multiple school settings, and prepares them for a successful career in teaching mathematics or science in the middle school or high school.

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- Area D - Any Two Lab Sciences 4 Credits
- Area D - Any Two Lab Sciences 4 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course From the Literature Group 3 Credits
- Area C Group 2 - Take One Course From the Art and Culture Group 3 Credits
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- CSE 1301 - Computer Science I 4 Credits
-

- RSCH 3610 - Research Methods 3 Credits
- STS 3347

- COMM 2170 - Introduction to Media Studies 3 Credits

Area F Core Studio Course in the Major (9 Credits; Choose 3)

- ARTS 2010 - Introduction to Drawing 3 Credits
- ARTS 2110 - Introduction to Painting 3 Credits
- ARTS 2220 - 2D and 3D Design 3 Credits
- ARTS 2903 - Music Theory 3 Credits

Area F Elective Courses in the Major (3 Credits; Choose 1)

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits

- ENGL 4170 - Media and Narrative 3 Credits
- TCOM 4040 - Applied Graphics for Technical Communicators 3 Credits
- TCOM 4045 - Foundations of Multimedia 3 Credits
- TCOM 4170 -

- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- DFN 1000 -

Bachelor of Apparel and Textiles

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2

Business Management, BAS

The Bachelor of Applied Science degree is designed to cap designated associate degree programs. Admission to this

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D1 - Mathematics (4 hours)

- MGNT 4151 - Operations Management 3 Credits
- MGNT 4595 - Business Strategy 3 Credits
- Upper level Management elective

Degree Program Total: 122

Information Technology, BAS

This program is designed for students who have completed an AAS or AAT degree from a two year technical college in a computing discipline.

Requirements

- ENGL 1101 - English Composition I 3

- IT 4123 - Electronic Commerce 3 Credits
- IT 4203 - Advanced Web Development 3 Credits
- IT 4153 - Advanced Database 3 Credits
- IT 4333 - Network Configuration & Administration 3 Credits
- IT 4683 - Management of Information Technology and Human Computer Interaction 3 Credits
- IT 4723 - IT Policy and Law 3 Credits
- IT 4833 - Wireless Security 3 Credits
- IT 4843 - Ethical Hacking for Effective Defense 3 Credits
- IT 4853 - Computer Forensics 3 Credits
- IT 3503 - Foundations of Health Information Technology 3 Credits

Technical Block (AAS major courses) 37 Credits

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- CSE 1301J - Programming & Problem Solving I 4 Credits
-

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1111 - College Algebra 3 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- Sciences - Lab Sciences 8 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area E

- Group 1 - American Context 3 Credits
- Group 2 - World History 3 Credits
- Group 3 - Behavioral Science 3 Credits
- Group 4 - Cultures and Societies 3 Credits

Area F

- Technical Block - Up to 17 Semester Hours 17 Credits
- Major Technical Block - Up to 21 Semester Hours 21 Credits

Major Courses

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- IET 3322 - Work Measurement and Ergonomics 4 Credits

- IET 3339 - Statistical Quality Control 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 3424 - Engineering Economy 3 Credits
- IET 3511 - Sustainability Engineering 3 Credits
- IET 4422 - Facilities Design, Plant Layout, and Materials Handling 4 Credits
- MATH 2253 -

Further information on the TCSG and SPSU program can also be found at http://tcsg.spsu.edu/.

Area A

- ENGL 1101 -

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- IET 2449 - Logistics and Supply Chain Management 3 Credits
- IET 3320 - Advanced Logistics 3 Credits
- IET 3339 - Statistical Quality Control 3 Credits
- IET 3356 - Quality Concepts and Systems Design 3 Credits
- IET 3424 - Engineering Economy 3 Credits
- IET 3511 - Sustainability Engineering 3 Credits
- IET 3620 - Warehousing Systems 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- MGNT 4135 - Project Management 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits

- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 1112L - Introductory Physics Laboratory II 1 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- GEOL 1101K - Introductory Geosciences 4 Credits
- ENVS 2202K - Introduction to Environmental Science 4 Credits

Area E Social Sciences

Group 1: American Context (select one)
- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits

Area E-2: World History (select one)
- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits

Area E-3: Behaviorial Science (select one)
- ECON 1101 - Introduction to Economics 3 Credits
- ECON 2107 - Introduction to Economic Analysis 3 Credits
- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

Area E-4: Cultures and Societies (select one)
- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
-

Common Professional Core

- MGNT 1000 - Orientation to Business 1 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- MGNT 3125 - Business Finance 3 Credits
- MGNT 3145 - Legal Environment of Business 3 Credits
- MGNT 3205 - Management Information Systems 3 Credits
- MGNT 4135 - Project Management 3 Credits
- MGNT 4151 - Operations Management 3 Credits

Core Accounting Courses

- ACCT 3230 - Intermediate Accounting I 3 Credits
- ACCT 3231 - Intermediate Accounting II 3 Credits
- ACCT 4530 - Advanced Accounting 3 Credits
- ACCT 3530 - Cost Accounting 3 Credits
- ACCT 4535 - Accounting Information Systems 3 Credits
- MGNT 4545 - Legal Environment of Business II 3 Credits
- MGNT 4545 - Legal Environment of Business II 3 Credits
- ACCT 4555 - Auditing and Assurance 3 Credits
- ACCT 4560 - Intro to Federal Income Taxes 3 Credits

Electives (Select 3 courses)

- ACCT 4562 - Federal Taxation II 3 Credits
- ACCT 4565 - Fraud Examination 3 Credits
- MGNT 4115 - Human Resource Management 3 Credits
- MGNT 4125 - Technology and Public Issues 3 Credits
- MGNT 4145 - International Management 3 Credits
- MGNT 4190 - Entrepreneurship 3 Credits
- MGNT 4595 - Business Strategy 3 Credits
  Free Elective - 2 credit hours

Degree Program Total: 122

Biology, B.S.

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits

Area B

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

- MATH 2253 - Calculus I 4 Credits

Note:

PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L may be taken instead of PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L

Area E

- Group 1 - American Context 3 Credits
- Group 2 - World History 3 Credits
- Group 3 - Behavioral Science 3 Credits
- Group 4 - Cultures and Societies 3 Credits

Area F

Take any 4 courses (with labs) from the list below. Courses used as Area D requirements may not be selected.

- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 1112L - Introductory Physics Laboratory II 1 Credits

Note:

PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L may be taken instead of PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L

Common Biology Major Requirements

A grade of "C" or better must be earned in all courses (excluding core areas A-E and free electives).

- BIOL 3000K - Genetics 4 Credits
- BIOC 3111K -

General Biology Track Requirements

- BIOL 3300K - Ecology 4 Credits
- BIOL 4480 - Evolution 3 Credits
- At least 5 additional BIOL or BIOC courses above 2199 (excluding track requirements), with at least one course from each of the Cellular Form and Function group and the Organismal Form and Function group 17-21 Credits
- Free Electives 10-14 Credits

Cellular Form and Function group

- BIOL 3100K - Microbiology 4 Credits
- BIOL 3400K - Cell Physiology 4 Credits
- BIOL 4410 - Immunology 3 Credits
- BIOL 4470 - Plant Physiology 3 Credits

Organismal Form and Function group

- BIOL 3700K - Ichthyolo

-

students in multiple school settings, and prepares them for a successful career in teaching mathematics or science in the middle school or high school.

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 Take One Course from the Literature Group 3 Credits
- Area C Group 2 Take One Course from the Art and Culture Group 3 Credits
- Area E Group 1 American Context 3 Credits
- Area E Group 2 World History 3 Credits
- Area E Group 3 Behavioral Science 3 Credits
- Area E Group 4 Cultures and Societies 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- CHEM 2511K - Organic Chemistry I 4 Credits
- CHEM 2512K - Organic Chemistry II 4 Credits
- PHYS 1111 -

Degree Program Total: 126

Area C2 - Fine Arts (3 hours)

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D1 - Mathematics (4 hours)

- MATH 2240 - Survey of Calculus 3 Credits

Area D2 - Science (8 hours)

- ASTR 1000K - Introduction to the Universe 4 Credits
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2212 - Principles of Physics II 3 Credits

Area E1 - Social Sciences - American Context (3 hours)

- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 - United States History since 1877 3 Credits
- POLS 1101 - American Government 3 Credits

Area E2 - Social Sciences - World History (3 hours)

- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits

Area E3 - Behaviorial Science (3 hours)

- ECON 1101 - Introduction to Economics 3 Credits
- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

Area E4 - Cultures and Societies (3 hours)

- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- POLS 2401 - Global Issues 3 Credits
- RELG 1200 - World Religion 3 Credits

Area F (18 hours)

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- ACCT 2102 - Principles of Managerial Accounting 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- ECON 2105 - Principles of Macroeconomics 3 Credits
- ECON 2106 - Principles of Microeconomics 3 Credits
- MGNT 2201 - Business Computer Applications 3 Credits

Required Courses

- MGNT 1000 - Orientation to Business 1 Credits

- MGNT 3205 - Management Information Systems 3 Credits
- MGNT 4115 - Human Resource Management 3 Credits
- MGNT 4125 - Technology and Public Issues 3 Credits
- MGNT 4135 - Project Management 3 Credits
- MGNT 4145 - International Management 3 Credits
- MGNT 4151 - Operations Management 3 Credits
- MGNT 4595 - Business Strategy 3 Credits

Business Administration Options

Concentration, Business Electives, Directed Electives, or a Minor in Another Discipline

Students in the Bachelor of Science in Business Administration program may complete the remaining 17 hours of credit by taking electives in a concentration (management, marketing, management of information systems), directed electives, or by completing a minor in another field. At least three courses must be at the 3000-level or above.

Option 1: Concentration

Students may complete 12 hours (four courses) in Accounting, Management, Marketing, or MIS by completing four electives in the selected area (see the elective lists that follows). At least three courses must be at the 3000-level or above.

Option 2: Business Electives

Students may complete 12 hours of elective credit from all of the business electives. At least three courses must be at the 3000-level or above.

Option 3: Directed Electives

Students may create a customized group of four electives from business and other disciplines, subject to advisor approval At least three of the courses must be at the 3000-level or above.

*Option 4: Minor in another field of study

Students may complete a Minor in another field (15-18 hours). See the catalog for requirements in a specific minor. Must complete free electives if the minor is less than 17 hours. Note that some minors require 18 hours.

Accounting Concentration Electives (15 Credits)

- ACCT 3230 - Intermediate Accounting I 3 Credits

- MGNT 4103 - Marketing Management 3 Credits
- MGNT 4903 - Special Topics in Marketing

Chemistry, BS

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 -

Area E

- Group 1 - American Context *3 Credits*
- Group 2 - World History *3 Credits*
- Group 3 - Behavioral Science *3 Credits*
- Group 4 - Cultures and Societies *3 Credits*

Area F

Take any 4 courses (with labs) from the list below. Courses used as Area D requirements may not be selected.

-

- MSCI 3101K - Introduction to Material Science 4 Credits
- CHEM 4412 - Main Group Inorganic Chemistry 3 Credits
- CHEM 4415 - Solid State Chemistry 3 Credits
- Upper-level CHEM elective 3-4 Credits
- Free electives 13-14 Credits

Chemistry, Education Track, BS

The bachelor's degrees in mathematics or science with the Teacher Education track provides students with a strong foundation in the discipline, giving them maximum flexibility with their degrees. Adding the Teacher Education track can give students immediate job possibilities.

The Teacher Education Program at SPSU provides students with strong, mentored experiences in the schools, a thorough knowledge of the teaching strategies and research on learning science and mathematics, and a nationally renowned teacher preparation program. This program allows students to build confidence in working with a variety of students in multiple school settings, and prepares them for a successful career in teaching mathematics or science in the middle school or high school.

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C1 - Course in Literature 3 Credits
- Area C2 - Course in Art and Culture 3 Credits
- Area D - Two courses in Laboratory Science (Physics recommended) 8 Credits
- Area E1 - American Perspective 3 Credits
- Area E2 - World History 3 Credits
- Area E3 - Course in Behavioral Science 3 Credits
- Area E4 -

- MATH 1113 - Pre-calculus 4 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2254 - Calculus II 4 Credits

Chemistry Education

- EDUC 1101 - UTeach Step 1 1 Credits
- EDUC 1102 - UTeach Step 2 1 Credits
- EDUC 2010 - UTeach Knowing and Learning 3 Credits
- EDUC 2020 - Classroom Interactions 3 Credits
- EDUC 4030 - Project Based Instruction 3 Credits
-

- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- CET 1000 - Orientation to Civil Engineering Technology 1 Credits
- CET 2110 - Problem Solving Methods in CET 3 Credits
- CET 3410 - Soil Properties and Site Exploration 3 Credits
- CET 3410L - Soil Properties Lab 1 Credits
- CET 3110 - Construction Materials and Sustainability 3 Credits
- CET 3110L - Construction Materials Lab 1 Credits
- CET 3120 - Cost Estimating and Scheduling in CET 3

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 2253 - Calculus I 4 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2

Degree Program Total: 130

The Civil Engineering degree requires a grade of "C" or better in all CE, SURV, and ENGR courses applied to degree requirements.

CE Technical Electives: (6 hrs)

- CE 4704 - Engineering Hydraulic Analysis and Design 3 Credits
-

- ECET 1012 - Design Fundamentals 2 Credits
- ECET 1101 - Circuits I 4 Credits
- ECET 1200 - Digital I 4 Credits
- ECET 2111 - Circuits II 4 Credits
- ECET 2300 - Electronics I 4 Credits
- ECET 2210 - Digital II 4 Credits
- ECET 2310 - Electronics II 4 Credits
- ECET 3220 - Digital III 4 Credits
- ECET 3400 - Data Communications 4 Credits
- ECET 3600 - Test Engineering 4 Credits
- ECET 3410 - High Frequency Systems 4 Credits
- ECET 3701 - Embedded PCs 4 Credits
- ECET 3710 - Hardware Programming and Interfacing 4 Credits
- ECET 3810 - Applications of C++, JAVA and HTML 3 Credits
- ECET 4610 - Control Systems 4 Credits
- EDG 1210 - Survey of Engineering Graphics 2 Credits
- CpET Electives 11 Credits

Degree Program Total: 128

Note:

* PHYS 1111/PHYS 1111L and PHYS 1112 /PHYS 1112L may be substituted for PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L .

CpET majors are required to earn a "C" or better in their ECET courses, except one "D" in a 3000 or 4000 level non-prerequisite course may be used for graduation purposes. A grade of "C" or better is required in the project-based capstone course.

CpET Electives

Embedded Systems (take 2 of the following courses)

Graduate will specialize in the design and implementation of smart devices used in products ranging from audio to medical to security systems. Both hardware design and programming at the system level will be stressed. The specialist will gain resume skills such as DSP and VHDL design, embedded micro-controller and embedded PC interfacing and programming.

- ECET 3640 - Introduction to Systems Engineering and Robotics 4 Credits
- ECET 4630 - Digital Signal Processing 4 Credits
- ECET 4720 - Distributed Microcontrollers and PCs 4 Credits
- ECET 4730 - VHDL and Field Programmable Gate Arrays 4 Credits

Networks (take 2 of the following courses)

Graduate will specialize in the development and implementation of networks of computers and micro-controllers.

- SWE 2313 -

- CS 4263 - Computer Networks 3 Credits

Educational-Serious

- 6 hours of approved TCOM courses
- CGDD 4313 - Designing Online Learning Content and Environments 3 Credits

Planning-Management (pick 3 of 4)

- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 4185 - Technology Management 3 Credits
- SWE 3623 - Software Systems Requirements 3 Credits
- SWE 4663 - Software Project Management 3 Credits

Simulation-Informatics

- CSE 3153 - Database Systems 3 Credits
- CS 4253 - Distributed Computing 3 Credits
- CGDD 4703 - Data Modeling and Simulation 3 Credits

- Utilize mathematics and science in game design and development
- Apply principles of game design and development to generate a portfolio showcasing their successful industrial experience, research, and/or creative works
- Demonstrate a breadth of knowledge in historic and emerging domains and genres of computer gaming and interaction
- Demonstrate an understanding of social, professional global, and ethical issues related to computing
- Work effectively in teams on system development projects
- Demonstrate effective oral and written communication skills

Computer Science, BS

BSCS Program Educational Objectives (PEOs)

- MATH 2254 - Calculus II 4 Credits
- MATH 2345 -

- SPSU 1001 - Hitch-

-

-

-

- ECET 4530 - Industrial Motor Control 4 Credits
- ECET 4540 - Introduction to Power Electronics 4 Credits
- ECET 4560 - Electric Drives 4 Credits

Telecommunications

- ECET 3810 - Applications of C++, JAVA and HTML 3 Credits
- ECET 4820 - Communications Networks and the Internet 4 Credits
- ECET 4840 - Advanced Telecommunications 4 Credits
- ECET 4850 - Telecommunications Project 4 Credits
- ECET 4860 - Network Security 4 Credits

Electrical Engineering Technology - Biomedical Engineering Technology Option, BS

The ECET department offers a Biomedical Engineering Technology Option under the Electrical Engineeering Technology (EET) degree. Students wishing to take this option must declare so in DegreeWorks. Upon completion of the EET-BMET Degree Option, students will receive the BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C1 - Course in Literature

Degree Program Total: 129

The Electrical Engineering degree requires a grade of "C" or better in all EE and ENGR courses applied to degree requirements.

Entrepreneurship Minor

Entrepreneurship Minor

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MGNT 3120 - Entrepreneurial Finance 3 Credits
- MGNT 3135 - Principles of Marketing 3 Credits
- MGNT 3170 - Leadership 3 Credits
- MGNT 4190 - Entrepreneurship 3 Credits

Environmental Engineering Technology, BS

Requirements

Area A:

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4

- ENGL Literature 3 Credits
- ARTS 2001, 2002, 2003, 2004 or FRENCH, GERMAN, SPANISH 1002 3 Credits

Area D

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
-

- CET 3410 - Soil Properties and Site Exploration 3 Credits
- CET 3410L - Soil Properties Lab 1 Credits
- CET 4310 - Stormwater Management and Erosion Control 2 Credits
- CET 4310L - Erosion Control Lab 1 Credits
- CET 4320 - Unit Operations in Environmental Engineering 4 Credits
- CET 4330 - Solid Waste Management 3 Credits
- CET 4110 - Ethics of Engineering 1 Credits
- CET 4120 - Senior Design and Engineering Documentation 3 Credits
- POLS 3401 - Environmental Law and Policy 3 Credits
- MATH MAJOR COURSES: Excess from AREA A 1 Credits
- CM 4710 - Construction Safety 4 Credits
- ENVS 3100K - Soil & Water Science 4 Credits
- ENVS 2202K - Introduction to Environmental Science 4 Credits

Major Electives:

Take minimum of 6 hours from major electives listed below:

- MGNT 3105 - Management and Organizational Behavior 3 Credits
- MET 3400 - Thermodynamics and Heat Transfer 3 Credits
-

Area B

- STS 2400 - Science, Technology, and Society 2 Credits
- COMM 2400 - Public Speaking 2 Credits

Area C

- Group 1 - Literature of the World 3 Credits
- Group 2 - Art and Culture of the World 3 Credits

Area D

Environmental Science majors MUST take the courses listed below to satisfy Area D

- MATH 2253 - Calculus I 4 Credits
- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits

Area E

- Group 1 - American Context 3 Credits
- Group 2 - World History 3 Credits
- Group 3 - Behavioral Science 3 Credits
- Group 4 - Cultures and Societies 3 Credits

Area F

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab

- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- ENVS 2202K - Introduction to Environmental Science 4 Credits
- BIOL 3000K - Genetics 4 Credits
- BIOL 3300K - Ecology 4 Credits
- BIOL 4200K - Zoology OR BIOL 4440K - Botany 4 Credits
- CHEM 2511K - Organic Chemistry I 4 Credits
- CHEM 2512K - Organic Chemistry II 4 Credits
- CHEM 3150K - Environmental Chemistry 4 Credits
- POLS 3401 - Environmental Law and Policy 3 Credits
- STS 4300 - Environmental Ethics 3 Credits
- SURV 3421 - Geographic Information Systems I 4 Credits
- ENVS 3100K - Soil & Water Science 4 Credits
- ENVS 4500 - Environmental Science Internship 3 Credits

Environmental Science Electives (12 semester hours from the list below)

- BIOL 3100K - Microbiology 4 Credits
- BIOL 3250K - Ecosystem Ecology 4 Credits
- BIOL 3500 - Biostatistics 3 Credits
- BIOL 3600 - Freshwater Biology 3 Credits
- BIOL 3700K - Ichthyology 4 Credits
- CET 3130 - Applied Fluid Mechanics and Hydraulics12.59960 0.8eq 0607 0 24 0 4 169.0225 366.48 cm Tc 37 0 0 37

Area A

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-

Major Courses

- ACCT 2101 - Principles of Financial Accounting 3 Credits
- IET 1000 - Orientation 1 Credits
- IET 2227 - Introduction to Statistics 3 Credits
- IET 2449 - Logistics and Supply Chain Management 3 Credits
- IET 3322 - Work Measurement and Ergonomics 4 Credits
- IET 3339 - Statistical Quality Control 3 Credits

A grade of "C" or better is required in all courses used in the major prescribed for the bachelor degree program.

Concentration in Logistics

The primary objective of the Concentration in Logistics is to provide training and education to students interested in entering the Supply Chain industry.

Required Courses

- IET 2227 - Introduction to Statistics 3 Credits
- IET 2449 -

Students who successfully complete the Concentration with a grade of "C" or better in each course will be awarded a Green Belt Certificate.

Information Technology, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)

- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F) or
- MATH 2240 - Survey of Calculus 3 Credits

- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2

- IT 4823 - Information Security Administration & Privacy 3 Credits
- IT 4983 - IT Capstone 3 Credits
- Free Electives 7 Credits
- Concentration or Technical Electives (see listing below) 12 Credits

Degree Program Total: 122

Tracks

Choose one of the tracks below and complete 3 of their courses. The 4th elective can be from the same or different track.

Enterprise Systems Track

- IT 4203 - Advanced Web Development 3 Credits
- IT 4153 - Advanced Database 3 Credits
- IT 4333 - Network Configuration & Administration 3 Credits
- IT 4903 -

Mobile and Web Track

- IT 3203 - Introduction to Web Development 3 Credits
- IT 4203 - Advanced Web Development 3 Credits
- IT 4903 - Special Topics in Information Technology 3 Credits
- CGDD 4203 - Mobile and Casual Game Development 3 Credits
- IT 4213 - Mobile Web Development 3 Credits
- CSE 3203 - Overview of Mobile Systems 3 Credits

Required Core Courses (42 Credits)

- WBIT 3010 - Technical Communication 3 Credits
- WBIT 3110 - Systems Analysis and Design 3 Credits
- WBIT 3111 - Information Technology Project Management 3 Credits

International Studies, BS

C-1: Literature (3 credits)

Choose ONE of the following:

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132

- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- ENVS 2200K - Geology 4 Credits
- ENVS 2202K - Introduction to Environmental Science 4 Credits
- GEOL 1101K - Introductory Geosciences 4 Credits
- PHYS 1111 - Introductory Physics I 3 Credits
- PHYS 1111L - Introductory Physics Laboratory I 1 Credits
- PHYS 1112 - Introductory Physics II 3 Credits
- PHYS 1112L - Introductory Physics Laboratory II 1 Credits
- PHYS 1211K - Principles of Physics I (ECORE) 4 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3

- HIST 1112 - Survey of World Civilization post 1500 3 Credits

E-3: Behavioral Science Perspectives (3 credits)

Choose ONE of the following (ECON 1101 Introduction to Economics is required in Area F and may not be used here):

- PSYC 1101 - Introduction to General Psychology 3 Credits
- SOCI 1101 - Introduction to Sociology 3 Credits

E-4: Global Perspectives (3 credits)

Satisfies the Global Perspectives overlay. Choose ONE of the following (POLS 2401 is required in Area F and may not be used here):

- ANTH 1102 - Introduction to Anthropology 3 Credits
- ES 1100 - Ethnic Studies 3 Credits
- GEOG 1101 - Introduction to Human Geography 3 Credits
- RELG 1200 - World Religion 3 Credits

Core Area F (18 credits):

Take ALL of the following:
- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits
  Or 6 credit hours of any non-English language at an equivalent level.
- COMM 2030 - Research for the Humanities & Social Sciences 3 Credits
- ECON 101 Tf 2.3 2 ( )ts

Free Electives

Additional credit hours to bring the minimum total credits to bring the total hours up to the 120 required for graduation. *Free elective hours may be used toward an additional minor and are exempt from the 9 hours rule.*

Degree Program Total: 120

Marketing Minor

Marketing Minor

- MGNT 3135 - Principles of Marketing 3 Credits
  Plus four of the following courses:
- MGNT 3210 - Professional Selling and Customer Relationship Management 3 Credits
- MGNT 3224 - Business Marketing 3 Credits
- MGNT 3228 - Market Research 3 Credits
- MGNT 4103 - Marketing Management 3 Credits
- MGNT 394x Special Topics in Marketing 3 Credits

Mathematics, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits

- CSE 1301 - Computer Science I 4 Credits
- CSE 1302 - Computer Science II 4 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- MATH 1113 - Pre-calculus 4 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2254

- MATH 3321 - Introductory Real Analysis II 4 Credits
- MATH 4407 - Vector Analysis 3 Credits
- MATH 4440 - Abstract Algebra 4 Credits
- MATH 4451 - Capstone Mathematics Project 3 Credits

Second Degree in Mathematics

Students who receive a degree from SPSU in a field other than Mathematics may receive a B.S. with a major in Mathematics by completing a

- ENGR 3131 -

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- ENGL 21XX - Core C1-Literature 3 Credits
- MATH 2253 - Calculus I 4 Credits
- MATH 2254 - Calculus II 4 Credits
- MATH 2255 - Calculus III 4 Credits
- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- MATH 2335 - Numerical Methods I 3 Credits * May substitute MATH 3312 Linear Algebra (4 credits) or

Degree Program Total: 129

The Mechanical Engineering degree requires a grade of "C" or better in all ME and ENGR courses applied to degree requirements.

Technical Electives

Technical Electives can be any non-required 3000 and/or 4000 level courses from ME, including Special Topics (ME

- ENGR 2214 - Engineering Mechanics – Statics 3 Credits
- MATH 3312 - Linear Algebra 4 Credits
- EE 3401 - Engineering Electronics 4 Credits
- ENGR 2501 - Engineering Materials 3 Credits
- ENGR 3122 - Dynamics 3 Credits
- ENGR 3343 - Fluid Mechanics 3 Credits
- ENGR 3345 - Fluid Mechanics Laboratory 1 Credits
- EE 3601 - Electric Machines 4 Credits
- ENGR 4421 - Instruments and Controls 4 Credits
- EE 4201 - Control Systems 4

- Area E Group 4 - Cultures and Societies 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- MATH 1113 -

- PHYS 3720L - Modern Physics Laboratory 1

- Free Electives 4 Credits

Degree Program Total: 121

Physics, Mechanical Engineering Concentration, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course from the Literature Group 3 Credits
- Area C Group 2 - Take One Course from the Art and Culture Group 3 Credits
- Area D - Any Two Lab Sciences 8 Credits
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Science 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- SPSU 1001 - Hitch-hiker's Introduction to SPSU 1 Credits
- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)
- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F)
- MATH 2254 - Calculus II 4 Credits
- MATH 2255 - Calculus III 4 Credits
- MATH 2306 - Ordinary Differential Equations 3 Credits
- PHYS 2211 - Principles of Physics I 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- PHYS 2212 - Principles of Physics II 3 Credits
- PHYS 2212L - Principles of Physics Laboratory II 1 Credits
- PHYS 2213 - Introduction to Thermal and Modern Physics 2 Credits
- PHYS 3410K - Electronics Laboratory 2 Credits
- PHYS 3220 - Electromagnetism I 3 Credits
- PHYS 3500K - Introduction to Computational Physics 3 Credits
- PHYS 3710 - Modern Physics 4 Credits
- PHYS 3720L - Modern Physics Laboratory 1 Credits
- PHYS 4210 - Quantum Physics 4 Credits
- PHYS 4230 - Thermal Physics 4 Credits
- PHYS 4240 - Solid State Physics 3 Credits
- EDG 2160 - Civil Graphics and Computer Aided Drafting 3 Credits
- ENGR 2214 - Engineering Mechanics – Statics 3 Credits

- ENGR 3122 - Dynamics 3 Credits
- ENGR 3131 - Strength of Materials 3 Credits
- ENGR 3132 - Strength of Materials Lab 1 Credits
- ENGR 3343 - Fluid Mechanics 3

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- COMM 2400 - Public Speaking 2

- STS 3347 - Perspectives on Science and Math 3 Credits
- EDUC 4401 - Apprentice Teaching Seminar 1 Credits
- EDUC 4406 - Apprentice Teaching 6 Credits

Degree Program Total: 120

Political Science, BS

There is a growing need for graduates in political science. The acquisition of methodological skills, coupled with an understanding of the political process at local, state, national and international levels, allows for employment in a variety of public and private venues where research techniques are highly prized. As well, the communication, analysis, and critical reasoning skills that our graduates obtain place them well in a competitive job market, where continual learning is essential and interpersonal and cross-cultural competencies are greatly needed.

While there are other political science programs offered in Georgia, SPSU's program will be unique in several respects:

- The SPSU program is highly quantitative in focus, offering students three additional quantitative courses in political science research methods and analysis beyond the norm required in other political science programs.
- The SPSU program offers students various inter-

- ARTS 2004 - History of Contemporary American Music 3 Credits
- FREN 1002 - Elementary French II 3 Credits
- GRMN 1002 - Elementary German II 3 Credits
- SPAN 1002 - Elementary Spanish II 3 Credits

Area D: Science and Math (12 credits)

D-1: Lab Science (8 credits)

You must take two semsters of lab science *and lab*

Area E: Social Sciences (12 credits)

E-1: American Perspectives (3 credits)

Satisfies the American Perspectives overlay. Any one of these courses, taken within the University System of Georgia, also satisfies the Legislative Requirement for US and Georgia Constitution and History. Students who fulfill this requirment with transfer credit from outside the USG *may* need to take HIST 2911: U.S. and Georgia Constitution and History to satisfy the Legislative Requirement for graduation. Please check with your advisor.

Choose ONE of the following (POLS 1101 American Government is required in Area F and may not be used here):

- HIST 2111 - United States History to 1877 3 Credits
- HIST 2112 -

- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits
  or 6 credits of any non-English language at an equivalent level
- ECON 1101 - Introduction to Economics 3 Credits
- POLS 1101 - American Government 3 Credits
- POLS 2100 - Introduction to Research Methods 3 Credits
- POLS 2401 - Global Issues 3 Credits

- HIST 3801 - Contemporary World History since 1945 3 Credits
- IS 3600 - Comparative Culture 3

C-1: Literature (3 credits)

Choose ONE of the following:

- ENGL 2111 - Early World Literature 3 Credits
- ENGL 2112 - World Literature Mid-1600s to Present 3 Credits
- ENGL 2120 - British Literature Early to Present 3 Credits
- ENGL 2121 - Early British Literature 3 Credits
- ENGL 2122 - British Literature Late 1700s to Present 3 Credits
- ENGL 2130 - American Literature Early to Present 3 Credits
- ENGL 2131 - Early American Literature 3 Credits
- ENGL 2132 - American Literature Mid 1800s to Present 3 Credits
- ENGL 2141 - Early Western Literature 3 Credits
- ENGL 2142 - Western Literature 1600s to Present 3 Credits
- ENGL 2300 - African-American Literature and Culture 3 Credits

C-2: Humanities (3 credits)

Choose ONE of the following:

- ARTS 2001 - Art Appreciation 3 Credits
- ARTS 2002 - Drama Appreciation 3 Credits
- ARTS 2003 - Music Appreciation 3 Credits
- ARTS 2004 - History of Contemporary American Music 3 Credits
-

- BIOL 2107 - Principles of Biology I 3 Credits
- BIOL 2107L - Principles of Biology I Laboratory 1 Credits
- BIOL 2108 - Principles of Biology II 3 Credits
- BIOL 2108L - Principles of Biology II Laboratory 1 Credits
- CHEM 1211 - Principles of Ch ( ) 5 0Tm /TT2.0 1 Tf (3) Tj ET Qes Labol 668.88(g) (o)1 (r) 37 0 0Tm /TT2.0 1 Tf (3) ʼ

Choose ONE of the following:

- PSYC 3031 - Experimental Psychology 4 Credits
- PSYC 3101 - International Social Psychology 3 Credits
- PSYC 4050 - History and Systems of Psychology 3 Credits
- PSYC 4800 - Psychology Capstone Seminar 3 Credits

Concentrations

Choose and complete one of the concentrations below:

Engineering Psychology (28 credits)

Required Courses (22 credits):

Grade of C or better required; take all of the following:

- IET 2305 - The Role of Industrial Engineering Technology in Industrial Systems 4 Credits
- IET 3322 - Work Measurement and Ergonomics 4 Credits
  The following must be taken in the order listed:
- CSE 1301J - Programming & Problem Solving I 4 Credits
  (be sure it's 1301J)
- IT 1324 - Advanced Programming Principles 4 Credits
- SWE 4324 - User-Centered Design 4 Credits
- SWE 4783 - User Interaction Engineering 3 Credits

Free Electives (6 credits)

Credit from any college-level course may be applied here.

Industrial / Organizational Psychology (28 credits)

Required Courses (12 credits):

Grade of C or better required; take all of the following:

- MGNT 4115 -

Grade of C or better required; choose THREE of the following:

- PSYC 3010 - Educational Psychology 3 Credits
- PSYC 3015 - Theories of Personality 3 Credits
- PSYC 3040 - Motivation and Emotion Credits
- PSYC 4130 - Psychology of Aging 3 Credits
- PSYC 4220 - Psychoactive Drugs, Behavior, and Society 3 Credits

Free Electives (7 credits)

Credit from any college-level course may be applied here.

Clinical and Counseling Psychology (28 credits)

Required Courses:

Grade of C or better required; take all of the following:

- PSYC 3015 - Theories of Personality 3 Credits
- PSYC 3230 - Abnormal Psychology 3 Credits
- PSYC 3301 - Psychological Testing 3 Credits

Concentration Electives (9 credits):

Grade of C or better required; choose THREE from the following:

- PSYC 2273 - Foresic Psychology 3 Credits
- PSYC 3010 - Educational Psychology 3 Credits
- PSYC 3040 - Motivation and Emotion Credits
- PSYC 3305 - Developmental Psychology 3 Credits
- PSYC 4000 -

Software Engineering, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- TCOM 2010 - Technical Writing 3 Credits
- ECON 2107 - Introduction to Economic Analysis 3 Credits
- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F)
- MATH 2254 - Calculus II 4 Credits
- MATH 2345 - Discrete Mathematics 3 Credits
- MATH 2260 - Introduction to Probability and Statistics 3 Credits
- Math/Science Electives - (Math at the level of MATH 2253 or higher; Science at the level of Area D or higher) 6 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course From the Literature Group 3 Credits
- Area C Group 2 - Take One Course From the Art and Culture Group 3 Credits
- Area D - Take Two Courses From the Laboratory Sciences Group excluding PHYS 1111, 1111L & PHYS 1112, 1112L) 8 Credits
- PHYS 2211 - Principles of Physics I 3 Credits (see note below)
- Area E Group 1 - American Context 3 Credits
- Area E Group 2 - World History 3 Credits
- Area E Group 3 - Behavioral Sciences 3 Credits
- Area E Group 4 - Cultures and Societies 3 Credits
- PHYS 2211L - Principles of Physics Laboratory I 1 Credits
- SPSU 1001 - Hitch-hiker's Introduc /T [(Ca)[(0 Tm /TT6.0 1 T Tm /TT2.01 Tf (2) Tj ET Q q (2) Tj ET Qn0 0 Tm /TT3.Tr

- CET 3210 - Structural Mechanics 3 Credits
- CET 3120 - Cost Estimating and Scheduling in CET 3 Credits
- CET 3130 - Applied Fluid Mechanics and Hydraulics 2 Credits
- CET 3220 - Applied Structural Steel Design 3 Credits
- CET 3230 - Concrete Infrastructure Design 3 Credits
- CET 3410 - Soil Properties and Site Exploration 3 Credits
- CET 4410 - Foundation and Retaining Wall Design 3 Credits
- SET 3260 - Masonry and Timber Design 4 Credits
- SET 3250 - Structural Loads and Connections 3 Credits
- SET 4240 - Structural Rehabilitation 3 Credits
- CET 4210 - Computer Methods in Structures 4 Credits
- CET 4230 - Advanced Concrete Design 4 Credits
- SET 4250 - Bridge Design 3 Credits
- CET 4110 - Ethics of Engineering 1 Credits
- CET 4120 - Senior Design and Engineering Documentation 3 Credits
- MGNT 3105 - Management and Organizatio (i) 9 (z (l) 6(i)5 (O) 2B( ) 6(e) 1 0Tm /TT6.0 1 Tf ( ) TQ qs(2 24 z (l) 6(i)

- MATH 1113 - Pre-calculus 4 Credits (extra hour is applied to area F)
- MATH 2253 - Calculus I 4 Credits (extra hour is applied to area F)
- MATH 2254 - Calculus II 4 Credits
- MATH 2260 - In

PHYS 1111 and PHYS 1112 are required.

If you use PHYS 1111/PHYS 1112 in Area D then you may use 4 hours of either CET or SURV 1-2000 level courses or any Lab Science to fulfill the Area F requirement.

If you use PHYS 1111/PHYS 1112 in Area D then you may use 4 hours of either CET or SURV 3-4000 level courses or any Lab Science to fulfill the major requirement.

Systems Engineering, BS

Requirements

- ENGL 1101 - English Composition I 3 Credits
- ENGL 1102 - English Composition II 3 Credits
- COMM 2400 - Public Speaking 2 Credits
- TCOM 2010 - Technical Writing 3 Credits
- STS 2400 - Science, Technology, and Society

- SYE 3320 - Engineering Economics and Decision Analysis 3

- MATH 1113 - Pre-calculus 4 Credits
- COMM 2400 - Public Speaking 2 Credits
- STS 2400 - Science, Technology, and Society 2 Credits
- Area C Group 1 - Take One Course from the Literature Group 3 Credits
- Area C Group 2 - Take One Course from the Art and Culture Group 3 Credits
- - Area D 0.24 126 645 655.2 c

- TCOM 3430 - Foundations of Graphics 3 Credits
- TCOM 3400 - Foundations of Design for the Web 3 Credits
- COMM 4100 - Small Group Communication 3 Credits
- ENGL 3100 -

For additional information about the B.S. program, contact the English, Technical Communication, and Media Arts Department at 678-915-7202, or email to TCOM@spsu.edu. You can also visit our website at etcma.spsu.edu.

Telecommunications Engineering Technology, BS

Requirements

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- SPAN 1002 - Elementary Spanish II 3 Credits
- SPAN 2001 - Intermediate Spanish I 3 Credits
- SPAN 2002 - Intermediate Spanish II 3 Credits

Area D: Science and Math (11-

Area E: Social Sciences (12 credits)

Group 1 Amerian Perspectives- (3 credits):

Elective Courses:

- At least one additional course in humanities (Area C) 3 Credits
- At least one additional course in social sciences (Area E) 3 Credits
- Any humanities, social science, math, lab science or any area F course from any program. 11-12 Credits

Total Program Hours: 60

Non-Degree

Accounting Minor

Students who wish to receive a concentration or minor in Accounting must take:

Accounting Minor Courses

Requirements

- CHEM 1211 - Principles of Chemistry I 3 Credits
- CHEM 1211L - Principles of Chemistry I Lab 1 Credits
- CHEM 1212 - Principles of Chemistry II 3 Credits
- CHEM 1212L - Principles of Chemistry II Lab 1 Credits
- CHEM 2511K - Organic Chemistry I 4 Credits
- CHEM 2512K - Organic Chemistry II 4 Credits
- 10 additional hours of upper division (3000 level or higher) Chemistry or Biochemistry courses.

Computer Game Design and Development Minor

To be eligible for a minor in Computer Game Design and Development, the student must complete the following courses with a grade of "C" or better. Any upper level (3000+) courses that are required in the major may not be used as credit for the minor. Other upper level CGDD courses may be used as substituted. Students must have at least 9 upper level CGDD hours not required for their major (CGDD courses taken as electives for your major bachelor degree can be used to complete the minor).

Minor in Game Design and Development Program Objectives:

- Provide students with game design and development knowledge that can be applied in their major area of study
- Provide students with fundamental game design and development skills

Minor in Game Design and Development Learning Outcomes

- Demonstrate skills fundamental to game design and development
- Demonstrate knowledge in at least two subfields of game design and development

Required Courses

-

To be eligible for a minor in Computer Science, the student must complete the following courses with a grade of "C" or better. Students must have at least 9 upper level CS hours.

Minor in CS Program Objectives

- Provide students with computing knowledge that can be applied in their major area of study.
- To provide students with fundamental programming skills.

Minor in CS Learning Outcomes

- Demonstrate programming skills in 2 different programming languages.
- Demonstrate knowledge of at least one additional area of computing.

Requirements:

- CSE 1301 - Programming & Problem Solving I 4
- CSE 1302 - Programming & Problem Solving II 4
- CS 3424 - Data Structures 4 Credits
- Two additional upper-level CS courses 6+

Note:

CS 3424 requires MATH 2345 - Discrete Mathematics as a pre-requisite.

Construction Minor

Requirements

To be eligible for a minor in Construction Management, the student must complete the following courses:

- CM 2000 - Construction Graphics 3 Credits

- ENVS 3000 - Environmental Science Seminar 1 Credits
- GEOG 4101 - Geographic Information Systems 3 Credits
- POLS 3401 - Environmental Law and Policy 3 Credits
- STS 4300 -

- COMM 3060 - Media, Culture, and Society 3 Credits
- COMM 4100 - Small Group Communication 3 Credits
  Students may take 2000 level or higher in Foreign Language.
  Students may count Study Abroad credits.

- CSE 3153 - Database Systems 3 Credits

And one of the Following:

- IT 4123 -

- HIST 1111 - Survey of World Civilization pre 1500 3 Credits
- HIST 1112 - Survey of World Civilization post 1500 3 Credits
- HIST 3200 - History of Science Survey 3 Credits
- HIST 3301 - Diplomatic and Military History since 1815 3 Credits
- HIST 3401 - Modern Social and Cultural History Twentieth Century 3 Credits
- HIST 3501 - Colonization and Rebellion in the Trans-Atlantic World 3 Credits
- HIST 3601 - History of the Pacific Rim 3 Credits
- HIST 3801 - Contemporary World History since 1945 3 Credits
- IS 3600 - Comparative Culture 3 Credits
- IS 3901 - Special Topics in International Studies 1 Credits
- IS 3902 - Special Topics in International Studies 1 to 5 Credits
  Any regional studies course NOT used to satisfy the Regional Studies requirement above.
- IS 4000 - Regional Studies - General 3 Credits
- IS 4001 - Regional Studies/Latin America 3 Credits
- IS 4002 - Regional Studies/Asia:China 3 Credits
- IS 4003 - Regional Studies/Asia:Japan 3 Credits
- IS 4004 - Regional Studies/Middle East 3 Credits
- IS 4005 - Regional Studies/Russia/ 2 8T Q q 0.24 0 4u5 1 50 0CudieieieaCre

Total Program Hours: 15

Latin American Studies Minor

All courses must be completed with grade of C or better. No more than 9 hours may also be used to satisfy requirements in a major or another minor except free electives. No courses used to satisfy Core Areas A-E may be used in a minor.

Required Courses:

- ES 1100 - Ethnic Studies 3 Credits
  Latino / Hispanic Ethnic Studies ONLY; may not also be used to satisfy E-4 core
- HIST 3501 - Colonization and Rebellion in the Trans-Atlantic World 3 Credits

- MGNT 4140 - Management of Networks and Telecommunications 3

- MET 3332 -

All courses must be completed with grade of C or better. No more than 9 hours may also be used to satisfy requirements in a major or another minor except free electives. No courses used to satisfy Core Areas A-E may be used in a minor.

Required Courses:

- POLS 1101 - American Government 3 Credits
- POLS 2401 - Global Issues 3 Credits
- POLS 3001 - Comparative Politics 3 Credits
- POLS 3301 - Modern Political Theory 3 Credits
  Choose ONE of the following:
-

- POLS 3401 - Environmental Law and Policy 3 Credits
- POLS 3501 - Intellectual Property Issues 3 Credits
- POLS 3701 - American Institutions 3 Credits

Total Program Hours: 18

Professional Writing Minor

Professional Writing

After taking COMM 2000, Business Communication, take only 12 more hours, 9 of which must be at the 3000 or 4000 level, to receive a Minor in Professional Writing. Your minor credential will be designated on your SPSU transcript provided you earn a C or better in each course.

Requirements

- COMM 2000 - Business Communication 3 Credits

Additional Courses for Minor (12 credits)

Students majoring in Business Administration are required to take COMM 2000 as part of their existing program of study. TCOM 2010 will serve as a blanket substitution for COMM 2000 for Business Administration students interested in Professional Writing minor.

This minor is not available to students majoring in either Technical Communication or English and Professional Communication.

- COMM 3035 - Organizational Communication 3 Credits
- COMM 3040 -

Consider the Certificate in Professional Spanish as well:

Requirements for Professional Certificate

Technical Communication Minor

Technical Communication

After taking TCOM 2010 Technical Writing, you will take only 12 more hours, 9 of which must be at the 3000 or 4000 level. If you earn a grade of "C" or better in each course, your minor credential will be designated on your SPSU transcript.

Requirements (6 credits)

- TCOM 2010

Requirements

Certificate students must complete five classes from the following list:

- ATT 1300 - International Sourcing 3 Credits
- ATT 1400 - Principles of Merchandising 3 Credits
- ATT 2301 - Apparel Computer-Aided Technical Design I 4 Credits
- ATT 3100 - Fashion Merchandising 3 Credits

Required Courses:

- CE 3701 - Geotechnical Engineering 3 Credits

- CM 3310 - Introduction to Development 3 Credits
- CM 3710 - Site Planning 4 Credits
- CM 4570 - Development Process I 4 Credits
- CM 3110 - Residential and Light Construction Methods 3 Credits

Subtotal: 14 Credits

*may substitute courses from electives list if competency can be demonstrated

Elective Courses:

- CM 2000 - Construction Graphics 3 Credits
- CM 3410 - Construction Quantity Surveying 3 Credits
- CM 3430 - Construction Estimating for Development 3 Credits
- CM 4510 - Construction Scheduling 3 Credits
- CM 4620 - Development Process II 3 Credits

Subtotal: 7 Credits (minimum)

Certificate Program Total: 21 Credits (minimum)

Land Surveying Certificate

The Land Surveying Certificate program is designed to prepare surveyors with the basic education necessary to take the Fundamentals of Land Surveying Exam and exceeds the State of Georgia academic registration requirements to become a Registered Land Surveyor. There are six courses required in the certificate program.

Required Courses (22 Credits)

- SURV 2221 - Surveying I 4 Credits
- SURV 3222 - Surveying II 4 Credits
- SURV 4465 - Legal A

Required Courses:

- IET 2227 - Introduction to Statistics 3 Credits
- IET 3322 - Work Measurement and Ergonomics 4 Credits
-

- CM 3420 - Construction Estimating and Bid Preparation 4 Credits
- CM 4510 - Construction Scheduling 3 Credits
- CM 4760 - Construction and Real Property Law 3 Credits

Subtotal: 9+ Credits

Certificate Program Total: 20+ Credits

Quality Principles Certificate

The primary objective of the Certificate in Quality Principles is to provide training and education to members of the Industrial Engineering field in quality system principles, methodology, elements and standards. Students can complete the requirements in 3–4 semeste(q) (n) 1 (.) 3 ( ) 3 (T) -1 (he) 1 (s) 1 (e) 1 ( )3 (c) 1 (ou(q) (n) 1 (e) 1 (s) 1 ( ) 3 (m)] TJ ET Q q 0.24 0 0 0.

All Courses Required for the Spanish Minor

Requirements for Spanish Minor

4000-Level Electives (6 credits):

Chose SIX credits from the following:

- SPAN 4001 - Professional Spanish 3 Credits
- SPAN 4002 - Techniques in Translation for Professional Spanish 3 Credits
- SPAN 4003 - Service Learning Project 3 Credits
- SPAN 4901 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4902 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4903 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4904 - Special Topics for Professional Spanish 1 to 5 Credits
- SPAN 4905 - Special Topics for Professional Spanish 1 to 5 Credits

If the University Police determine that a s

The Office of Sponsored Programs has overall responsibility for the administration of grants, contracts and sub-awards, as well as compliance with state and federal regulations. Pre-award services include identifying funding opportunities and working with faculty to prepare proposals for submission. Post-

GALILEO – Georgia Library Learning online, popularly known as GALILEO, is an initiative funded by the University System that allows access to online databases, including full-text and full-image files. Faculty and students have access to more than 100 indexing and abstracting services and to the Internet. Additionally, students who bring their laptops will be able to access GIL, GALILEO and the Internet for research purposes in any area of the Library which has wireless access.

Hive Search – Hive Search integrates multiple information sources, such as our catalog, databases, publications, videos, and images, with additional sources constantly being added. It provides access to interlibrary loan services, and connects to other services from the University System of Georgia Libraries, such as GALILEO and GIL Universal Catalog.

Additional information about services offered at the Johnson Library may be accessed at www.spsu.edu/library/library.html; or patrons may chat with a librarian through the library main page or place queries on email at reference@spsu.edu.

Licensure of Professional Engineers

 To protect public safety, each state establishes laws to license engineers who are responsible for decisions that affect public health and safety. The licensing process involves formal education, two written examinations, appropriate work experience, and recommendations by professionals in the field. The two written examinations consist of the

leisure skills for a healthier lifestyle. The Department organizes, administers, and promotes a broad program of competitive,recreational, fitness, and wellness programs for students, faculty, and staff.

The Intramural Sports program providess raaas -1 ( ) 4 (w) -1 (i) 4 (r) (Th) 1 ( ) 4 (r) (Th) 1 (e) 2 ( ) 4 (o) (p) 1 Sportair(y) 1 ( ) 4 (r) (o) c

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SPSU offers nearly 1800 on-campus student housing beds. In addition to providing a convenient and economical home for students, on-campus living also provides a great learning opportunity. Living on campus contributes to the educational development of each student through exposure to students of varied backgrounds, experiences, and

To earn the University Honors Scholar Diploma at Southern Polytechnic, students must complete 18 credit hours of Honors coursework and at least 6 of those hours must be upper division course-work. To earn the Departmental Honors Scholar Diploma, students must complete 6 hours of enriched upper division course-work or directed study.

The Honors Program offers several different types of honors courses so that students can meet the requirements.

- Honors Core Courses
- Honors Interdisciplinary Seminars
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The ATTIC

28 or higher	MAT 1+2	MATH 1113 Pre-calculus OR
AND		MATH 2253 Calculus I OR