SPSU Majors - Bachelor’s Level

Architecture - ARCH
SPSU is the only public state institution in Georgia to offer the Bachelor of Architecture degree. Our membership in the School of Architecture, Civil Engineering Technology, and Construction affords our students the opportunity to take classes in Construction and Civil Engineering for a multi-disciplinary degree. We also offer classes in furniture design, applied architectural research and designing/building.
Curriculum: http://architecture.spsu.edu/curriculum.htm#

Bachelor of Applied Science (BAS)
The B.A.S. degree is designed for students who have completed an associate of applied science or technology degree in management or marketing from accredited schools in technical college systems of Georgia.
Curriculum: http://www.spsu.edu/business/webx/curriculum/BAS.htm

Biology - BIOL
Southern Polytechnic provides students with a modern program that focuses on molecular biology, biochemistry, and bioinformatics within the context of biotechnology. Numerous research opportunities are available to students, as are excellent facilities and plenty of hands-on experiments.

Business Administration - BA
The B.S. in Business Administration program offers a choice of electives in such areas as management of technology, marketing, management information systems, and healthcare or you can pursue a minor in another discipline. Students in the B.A. in Business Administration program complete a minor in International Studies and must demonstrate proficiency in a foreign language.
Curriculum: http://www.spsu.edu/business/webx/b.htm

Chemistry - CHEM
The Bachelor of Science degree in Chemistry will provide students a program of study in modern chemistry with tracks in material science and general chemistry. Students completing the program will be prepared for entry-level jobs in the chemical and related industries, to enter graduate school in chemistry, medicine, veterinary medicine, or pharmacy, or to teach middle school or high school science.

Our program integrates the fundamentals of chemistry with the ever-increasing use of technology. Laboratories use sophisticated instruments and techniques. Students graduating from our program have mastered many of the techniques used in commercial and academic laboratories. Concentrations are offered in General Chemistry and Material Science.
Curriculum: http://www.spsu.edu/chem/major/curriculum.htm

Civil Engineering Technology - CET
The Civil Engineering Technology program at SPSU prepares students for a number of specialized careers in civil engineering. We stress standard design practice and incorporate laboratory experience into the majority of our courses, providing our students with the theory and practice required to move rapidly and successfully into the work force.
The program encompasses several technical fields, which include:

- Structural design: bridges, tunnels, foundations, buildings
- Environmental control: air and water quality, waste treatment and disposal
- Transportation: roads and highways, intersections, airports, subways
- Site planning: subdivision design, drainage facilities, earthwork
- Surveying: boundary and topographical surveys, route and construction surveys
- Geotechnics: soil properties, exploration, foundation design

Curriculum: [http://www.spsu.edu/cet/CETWeb/dept.html](http://www.spsu.edu/cet/CETWeb/dept.html)

**Computer Engineering Technology - CpET**
The degree program in Computer Engineering Technology utilizes a core of mathematics, physics, and courses in digital, circuit, and electrical design to provide the scientific and technical background needed for an in-depth study of the hardware and software aspects of computers and their systems. The program emphasizes the use of microcomputers for hands-on application of learned principles and theories.
Curriculum: [http://www.spsu.edu/catalog/ugrad/curriculum/cpet.html](http://www.spsu.edu/catalog/ugrad/curriculum/cpet.html)

**Computer Science - CS**
As preparation for diverse employment opportunities, the Computer Science program offers a wide range of Mathematics and Computer Science courses, such as Programming Language Concepts, Data Structures, and Algorithm Analysis. Students may elect to earn a Bachelor of Science degree in Computer Science or the Bachelor of Art in Computer Science with a minor in International Studies.
Curriculum: [http://cs.spsu.edu/](http://cs.spsu.edu/)

**Construction Engineering - CE**
This degree combines the traditional areas of civil engineering and construction and produces graduates who are able to work effectively in all aspects of the construction industry.

Graduates can look forward to employment by construction companies; city and county construction departments; state and federal transportation organizations (such as the Georgia Department of Transportation); and civil engineering consulting and design firms. Graduates have the qualifications to enter careers in construction related fields, as well including construction engineering design, construction operations and management, construction planning and cost estimating. Typical job titles for graduates may include construction engineer, project engineer, project supervisor, construction manager, and design engineer.

**Construction Management - CM**
We offer courses in construction law, information systems, strategic bidding and estimating, construction risk analysis, and numerous other subjects. With an average class size of approximately 20 students, learning takes place in a friendly and personal environment. Classes incorporate use of state-of-the-art software applications and contemporary theories. The program is accredited by the American Council for Construction Education.
Curriculum:
[http://cnst.spsu.edu/CNSTWEB/General%20Information/Degree_Programs.htm](http://cnst.spsu.edu/CNSTWEB/General%20Information/Degree_Programs.htm)
**Electrical Engineering Technology - EET**
The Electrical Engineering Technology major incorporates courses in Engineering Technology, Math, and Management in addition to required core classes. Courses such as Data Communications and Signal and Systems Analysis ultimately lead to the Bachelor of Science in Electrical Engineering Technology.  
**Curriculum:** [http://www.spsu.edu/catalog/ugrad/curriculum/eet.html](http://www.spsu.edu/catalog/ugrad/curriculum/eet.html)

**English and Technical Communication - BAEPC**
The B.A. in English and Professional Communication combines English and literary studies with a strong foundation in rhetoric and professional writing. Our Professional Writing concentration helps students develop the strong writing and editing skills needed for a variety of careers that include corporate communications, public relations, journalism, and publication management. Our new concentration in Media, Communication, and Culture combines hands-on production courses with a study of media and culture to prepare students for careers in marketing, mass communication, and entertainment, where media savvy can really pay off.

As with our B.S. program, B.A. students create professional portfolios that highlight their writing and technology skills. Possible careers include: Medical and scientific writing, Journalism, Publishing, Corporate communications, Marketing Communication, Public Relations and Media and Entertainment  
**To see Student Portfolio Projects go to -**  
[http://www.spsu.edu/htc/home/Undergrad/ug_portfolios.htm](http://www.spsu.edu/htc/home/Undergrad/ug_portfolios.htm)  
**Curriculum:** [http://www.spsu.edu/htc/home/Undergrad/baepc.htm](http://www.spsu.edu/htc/home/Undergrad/baepc.htm)

**Fashion Design and Product Development - FDPD (formerly Apparel Textile Technology)**
This curriculum focuses on concept, design, product development, apparel marketing, international sourcing, and merchandising while providing related courses in management and industrial engineering. The Bachelor of Apparel and Textile degree provides entry to the industry in various professional areas such as: technical fashion design, international sourcing, fashion forecasting, product development, merchandising, project management, apparel marketing, product development and entrepreneurship  
**Curriculum:** [http://atet.spsu.edu/Curriculum.htm](http://atet.spsu.edu/Curriculum.htm)

**Industrial Engineering Technology - IET**
In the Industrial Engineering Technology program at SPSU, students learn how to solve management problems you'll face in the workplace, like dealing with the location and layout of plant facilities, handling materials, designing work stations, planning wages for your employees, selecting and placing personnel, controlling occupational safety, and more. Learning takes place in a hands-on environment, so they not only learn the tools of the trade, but how to apply them in real life situations.  
**Curriculum:** [http://iet.spsu.edu/ACADEMIC/Undergraduate/BS.DOC](http://iet.spsu.edu/ACADEMIC/Undergraduate/BS.DOC)

**Social and International Studies - SIS**
The Social and International Studies Department (SIS) of Southern Polytechnic State University (SPSU) seeks to provide every student with a multidisciplinary grounding in the social sciences, a sense of history, an international perspective, and the opportunity to acquire proficiency in a second language.
SIS also offers SPSU students a wide range of enrichment opportunities from campus lecture series to study abroad, which will introduce students to new ideas, perspectives, and experiences. We strive to develop in every student skills that will allow them to gather and evaluate information, critically analyze diverse ideas, formulate and clearly communicate their own ideas, and function effectively in a wide range of cultural and interpersonal settings. We believe these are critical skills for responsible citizenship and life-long success in an increasingly global, rapidly changing, and challenging world.

Curriculum: [http://sis.spsu.edu/Department/IntlStudies.html](http://sis.spsu.edu/Department/IntlStudies.html)

**Information Technology - IT**
We offer undergraduate and graduate programs in Information Technology, both of which combine the perfect mixture of computing and management courses with newer courses in Information Technology.

Curriculum: [http://it.spsu.edu/index.shtml](http://it.spsu.edu/index.shtml)

**Mathematics - MATH**
A firm basis in mathematical theories and applications helps lay a solid foundation for any number of careers --- whether as a teacher, a systems analyst or an actuary for an insurance company. At Southern Polytechnic, students will not only learn the fundamentals of mathematics, but will learn them in a close, friendly environment in small, highly interactive classes.

Curriculum: [http://math.spsu.edu/](http://math.spsu.edu/)

**Mechanical Engineering Technology - MET**
At Southern Polytechnic, we develop mechanical engineering technologists who can apply relevant engineering principles to today's industrial problems. Our bachelor's degree programs emphasize necessary theoretical concepts and practical laboratory experience in manufacturing processes and techniques, instrumentation and controls, and equipment and machinery performance evaluation. Instruction takes place in some of the most cutting edge laboratories and classrooms the Southeast has to offer.

Curriculum: [http://met.spsu.edu/areas.htm](http://met.spsu.edu/areas.htm)

**Mechatronics - MTRE**
In this major, some topics from Mechanical Engineering, Electrical Engineering, and Computer Science are combined to produce graduates who are able to work effectively in all aspects of robotics, automated manufacturing, and the design of mechanical devices with embedded intelligence.

Curriculum: [http://mechatronics.spsu.edu/MechatronicsCurriculum.html](http://mechatronics.spsu.edu/MechatronicsCurriculum.html)

**Physics - PHYS**
In addition to core courses, you will choose electives to meet your individual career objectives with the help of a department advisor. Students may choose to add a double major to the Physics major, such as Engineering Technology.


**Psychology - PSYCH**
The Bachelor of Science degree in Psychology will provide students a program of study in modern psychology. Specifically, the program will embrace a strong international component with a multi-disciplinary curriculum that will provide a balanced, career-
based education in psychology with a wide range of skills and practical knowledge. In addition, the program will prepare psychology majors for graduate programs in such areas as psychology law, business, and education. The concentrations to be offered will be Engineering Psychology, Industrial/Organizational Psychology, and General Psychology.
Curriculum: [http://www.spsu.edu/arts/psychology.html](http://www.spsu.edu/arts/psychology.html)

**Software Engineering - SWE**
Software Engineering is a specialized area of computing that emphasizes solving the problems and complex issues associated with developing and maintaining mission-critical software to meet the needs of business and industry. SWE uses the life-cycle concept from traditional engineering with an emphasis on specification, design, and implementation but calls on the focused application of computer science concepts rather than those of traditional engineering. The position “software engineer” has become a common job title for software developers in business and industry and represents the fastest growing segment of software professionals.

The baccalaureate program in Software Engineering emphasizes a broad range of programming courses ranging from programming language concepts to software testing and it incorporates some computer science courses as well.
Curriculum: [http://swe.spsu.edu/](http://swe.spsu.edu/)

**Surveying and Mapping - SURV**
Nearly all of our classes are lab-based, so our students develop the critical thinking needed to work in this field. Using a variety of tools, students become adept at creating maps from field measurements, designing and laying out construction projects, and planning subdivision developments. Field exercises, which take place right on campus, help prepare you to work in the private sector, government and utilities, or engineering practice.
Curriculum: [http://www.spsu.edu/cet/CETWeb/dept.html](http://www.spsu.edu/cet/CETWeb/dept.html)

**Systems Engineering - SYE**
Approximately the first two years of study are common with other fields of engineering and include several semesters of Calculus, Computer Science, Chemistry, Physics, and core Engineering coursework. In the last two years, the focus shifts to more Systems Engineering specific courses, such as statistics, requirement analysis, engineering optimization, and program management.

Graduates can look forward to employment in the defense, space, transportation, energy and telecommunications industries, as well as many other fields that look for the knowledge and skills necessary to engineer large and complex systems.
Curriculum: [http://iet.spsu.edu/mssye/options/JustCurriculum.xls](http://iet.spsu.edu/mssye/options/JustCurriculum.xls)

**Technical Communication - TCOM**
The B.S. in Technical Communication prepares students for careers that explore the inherent relationship between communication and technology. This includes developing web sites explaining technology to the public. The focus is on computer-mediated communication and information design. With concentrations in Information Design and Digital Media and Graphics, students develop strong communication skills in both print media and new media for careers involving technical and computer-mediated communication. To prepare for careers in technical communication,
students create professional portfolios demonstrating their writing and technology skills. Possible careers include: User Documentation, Information Design, Multimedia Development, Graphic Design, Instructional Design and Web Design.

Curriculum:  http://www.spsu.edu/htc/home/Undergrad/bstc.htm

**Telecommunications Engineering Technology - TCET**

The degree program is based upon a core of mathematics, physics, and electronics courses that provide the scientific and technical background required for an in-depth understanding of system hardware and software. Building upon this core, students immerse themselves in several telecommunications-related courses to gain a holistic perspective of the industry. Although students are entitled to earn the telecommunications degree, this program covers all aspects of modern computer networking as well as management.

Curriculum:  http://www.spsu.edu/catalog/ugrad/curriculum/tcet.html

**SPSU Majors - Master’s Level**

**Computer Science - CS**

The M.S. program with major in Computer Science (MSCS) builds on top of a solid foundation of the discipline that has matured over the past several decades, and provides advanced course work in CS. The many electives in the program allow for an exposure to the emerging areas such as Distributed Programming, Soft Computing, Graphics and Image Processing, Programming Languages, Software Engineering, Computer Architecture, Networks, etc., as well as current topics. The Master's courses are all taught by full-time faculty holding doctorates or occasionally by a qualified individual with industry experience.

Curriculum:  http://cs.spsu.edu/Curriculum/MSCS%20Catalog%20Description.htm

**Construction Management - CM**

Admission to the Master of Science with a major in Construction is open to persons holding the bachelor or higher degree in engineering, engineering technology, construction management, construction technology, architecture, management, or related degree from an accredited college or university.

Curriculum:
http://cnst.spsu.edu/CNSTWEB/General%20Information/Degree_Programs.htm

**Engineering Technology / Electrical Master's - ET**

Our program provides in-depth technical education for individuals with a background in electrical engineering, computer engineering or engineering technology. Professionals who want to shift their career path to electrical, electronic or computer-related professions also benefit from thorough study and research experience.

Through courses in system engineering, digital signal processing, mechatronics, machine intelligence, and telecommunications, students develop the skills they need to advance in their chosen careers and go on to work as engineers, technologists, technical managers, independent consultants or teachers.

Curriculum:  http://www.spsu.edu/catalog/ugrad/curriculum/tcet.html
Information Design and Communications - IDC
The IDC degree prepares graduates to go on to pursue careers in diverse fields, including technical writing, corporate communications, usability testing, instructional design, marketing, web development, and media.
Curriculum: [http://tc.spsu.edu/Grad/pages/courses.htm](http://tc.spsu.edu/Grad/pages/courses.htm)

Information Technology - IT
Our program emphasizes the management and performance of information systems planning, development, implementation, and orientation. Jointly administered by the Department of Computer Science and the School of Management, the program requires students to satisfy prerequisites in business administration. Admitted students are expected to have taken courses in management and organizational behavior, statistics, production operations management, accounting, finance, law, marketing principles, economics, computer programming, databases, and advanced programming.
Curriculum: [http://it.spsu.edu/index.shtml](http://it.spsu.edu/index.shtml)

Business Administration - MBA
Courses include Financial Decision Making, Managerial Economics, Issues in International Management, and Management of Information Technology. All of our classes provide excellent teaching accompanied by other relevant experiences in the field. Students gain a background in the theoretical knowledge, analytical techniques, and interpersonal skills they need to succeed, and specialize in the area that most closely matches their career goals.
Curriculum: [http://www.spsu.edu/business/webx/b.htm](http://www.spsu.edu/business/webx/b.htm)

Quality Assurance - QA
Our graduate program in Quality Assurance offers two tracks -- Engineering and Technology or Quality Systems. The Engineering and Technology concentration is designed for students with undergraduate degrees in Engineering Technology, Physical Science, Mathematics, and other technical majors. Two years of full-time experience in the field is also required for this concentration.

The Quality Systems concentration supports students who lack a formal technical education but wish to enforce total quality, continuous improvement, process management, and reengineering within their organization. This concentration is open to students with undergraduate degrees in Business, Social Science, Education, and other non-technical fields.
Curriculum: [http://iet.spsu.edu/](http://iet.spsu.edu/)

Software Engineering - SWE
Students in this program have at least two years of full-time experience in software development and/or maintenance. Typically, students are working professionals in metro Atlanta with at least a bachelor's degree.
Curriculum: [http://swe.spsu.edu/swe.htm](http://swe.spsu.edu/swe.htm)

Systems Engineering - SYE
The principal goal of the Systems Engineering Graduate Program is to provide an opportunity for working professionals to acquire advanced systems engineering skills through part-time study. In the past, leading systems engineers with large corporations have had academic backgrounds as diverse as engineering, management, and liberal arts. However, these experts in the field are few in number.
The Systems Engineering Graduate Program will serve to educate professionals to solve industry challenges of the 21st century. These professionals will also develop the fundamental systems engineering knowledge to assess program risks, understand requirements and develop solutions to meet the complex needs of business and technology.

Curriculum: http://www.spsu.edu/catalog/ugrad/curriculum/eet_grad.html