

With your B.S. degree in computing, this online* Graduate Certificate in Software Engineering

can enhance your path to a bright future!



One of the most recognizable diagnostic images is the sonogram, used to evaluate the progress of fetal development. For many parents, this is the "first picture" of their baby. The instrument scan results are interpreted by an engineered software program, which creates the image.

Software engineering represents the fastest growing segment of software professionals. These men and women solve problems and resolve issues in the engineering and development of mission-critical software systems to meet the requirements of business and industry in a reliable, secure, timely, and cost-effective manner.



An Aviation Electronics Technician loads new computer software for an F/A-18F Super Hornet on the flight deck aboard the nuclear-powered aircraft carrier USS Nimitz. Image courtesy U.S. Navy.

Develop complex and large real-world software products within budget, reliability, and time constraints, like:

- Microsoft Office,
- an online banking system,
- an airline reservation system,
- the software that controls a plane cockpit or a car,
- a computer game,
- a training simulation,
- a diagnostic application,
- and many other possibilities.

* The program is also available through evening classes on campus.

Southern Polytechnic's certificate programs feature:

- Effective online delivery
- High quality teaching and interaction
- Full-time faculty



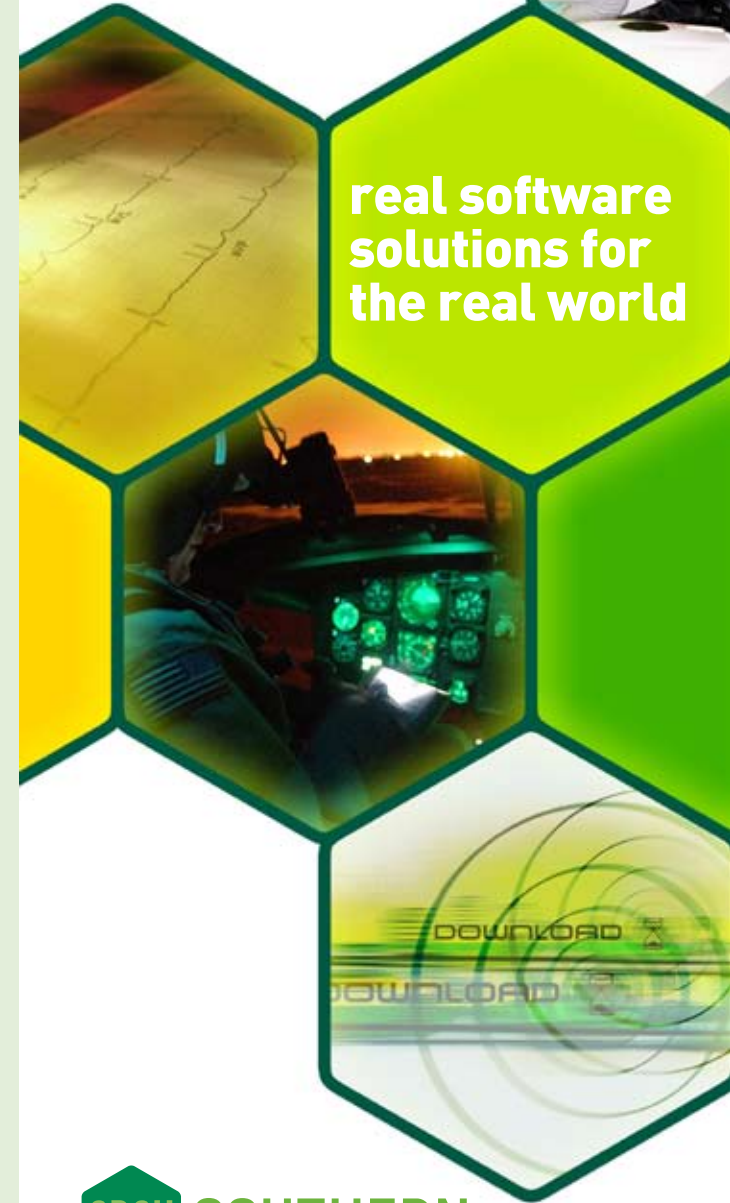
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Southern Polytechnic State University
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**SPSU SOUTHERN
POLYTECHNIC
STATE UNIVERSITY**

Online

Graduate Certificate in
Software Engineering
GCSWE

**real software
solutions for
the real world**



**SPSU SOUTHERN
POLYTECHNIC
STATE UNIVERSITY**

Only three semesters to a certificate!

Program

At Southern Polytechnic, our Software Engineering students learn strategies and procedures that will give them a competitive edge in the market. The Graduate Certificate in Software Engineering is intended to provide an entry into the engineering and management of software projects. All the courses taken toward the certificate also count toward the Master of Science degree in Software Engineering.



Center: ATM and online banking systems function only as well as the software engineered to power them. Image: Royalty-Free/Corbis.



Right: Although several of the images show military applications for software engineering, applications similar to those shown exist in the private sector as well. Here, a student demonstrates the Virtual Reality (VR) parachute trainer, while an associate controls the program from a computer console. Students wear the VR glasses while suspended in a parachute harness, and then learn to control their movements through a series of computer-simulated scenarios. The computer receives signals from the student as they pull on the risers that control the parachute. The VR trainer also teaches aircrew personnel how to handle a parachute in different weather conditions and during possible equipment malfunctions. Navy and Marine Corps aviators receive state of the art training at the Naval Survival Training Institute. U.S. Navy photo by Chief Photographer's Mate Chris Desmond. Official Navy Photograph released by Joy White, Media Officer, Commander Naval Education and Training (CNET).

Left: The Microsoft Application is an integrated software application of the type CSE students learn to engineer. Microsoft Office is known worldwide, and is considered a reliable and comprehensive tool almost essential to today's business. Photo courtesy Jeff Wilcox, used with permission.

Please note that for the graduate certificate application:

- Applicants are not required to take the GRE
- International students are required to take the TOEFL
- Applicants are not required to submit a statement of purpose

All admission documents must be received a month before the start of the semester of admission.

Curriculum (18 credit hours)		
GCSWE Courses: (9 credit hours)		
SWE 6623	Software Engineering I	3 hrs.
SWE 6633	Software Project Management	3 hrs.
SWE 6723	Software Testing and Evolution	3 hrs.
GCSWE Electives: Select 3 electives from the list below (9 credit hours)		
SWE 6743	Object-Oriented Analysis and Design	3 hrs.
SWE 6763	Software Metrics and Quality Management	3 hrs.
SWE 6783	User Interaction Engineering	3 hrs.
SWE 6883	Formal Methods in Software Engineering	3 hrs.
CS 6153	Advanced Database Systems	3 hrs.
CS 6323	Human Factors	3 hrs.
CS 6353	Computer Graphics and Multimedia	3 hrs.
IT 6643	Issues in Information Management	3 hrs.

Note:

Applicants with sufficient preparation may be allowed to substitute up to two 6000-level courses for the same number of required courses in which they hold expertise.

Bring Your University Home — with Southern Poly's Distance Learning

Software Requirements:

- Recent internet browser such as Firefox, Netscape or IE
- Use of such programs as WebCT require free downloads of JAVA and QuickTime
- Tutorials and Wizards can be run to ensure a proper setup
- Specific courses may require additional software packages, most of which are free or low-cost

Hardware Requirements:

- Pentium 3 processor, but preferably a Pentium 4 or better (i.e., Athlon 64 bit, etc.)
- High speed internet connection
- Headset with microphone and earphones may be necessary for some classes



AT A GLANCE

GENERAL

Located in metro Atlanta
Diverse student body
Private school atmosphere at public school prices

ACCREDITATION

The Commission on Colleges of the Southern Association of Colleges and Schools (SACS)
The Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) for BSCS

RANKINGS

Within the University System of Georgia, Southern Polytechnic State University ranks in the top tier in earning power of graduates

INSTRUCTIONAL TECHNOLOGY

Excellent and effective use of technology online and on campus

FACULTY

Experienced, dedicated professors
A teaching institution — teaching is the number one criterion for promotion and tenure
Small classes — about 25 students in a class, more individual attention

GRADUATES

Graduates are well-paid and immediately productive

COSTS

Distance learning graduate tuition is \$245/hr., plus a Technology Fee of \$75 per semester.
(Effective 2008-2009 academic year. May change without notice.)

FINANCIAL AID

Many forms of financial aid are available. For more information, contact the Office of Financial Aid at (678) 915-7290.



A Combat Information Center team keeps track of their position and the positions of friendly forces, all unknown contacts and any possible threats through integrated software systems. U.S. Navy Photo by David Mercil.

For more information please contact

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Southern Polytechnic State University is an equal opportunity educational institution which does not discriminate on the basis of race, sex, age, religion, national origin or disability.