



More than 15,000 technology-intensive jobs are unfilled in South Carolina alone, according to the SC Technology Alliance. An influx of major manufacturers, especially in information technology, is leading to greater demand for technicians.

Today's work environment typically revolves around teams to solve industry problems. Companies need employees who can apply what they know to come up with solutions and communicate these ideas to co-workers. Employees must be flexible and able to learn and adapt as the workplace changes.

### What is SC ATE and how can it help you meet your goals ?

The South Carolina Advanced Technological Education Center of Excellence (SC ATE) is a statewide initiative designed to increase the quantity, quality and diversity of engineering technology graduates throughout the state's 16 technical colleges.

The SC ATE Center is funded by the National Science Foundation (NSF) and the SC State Board for Technical and Comprehensive Education. SC ATE is one of 11 NSF-sponsored Centers of Excellence in the nation and the only Center of Excellence in the Southeast.

If you need to strengthen math or communications skills before moving into an engineering technology program, SC ATE offers Technology Gateway classes to meet your specific needs. When you're ready to enter an engineering technology program, SC ATE offers a new first-year engineering technology "core" curriculum (ET Core).

Your technical college will help you determine the placement that is right for you.

### What are the strengths of the SC ATE experience?

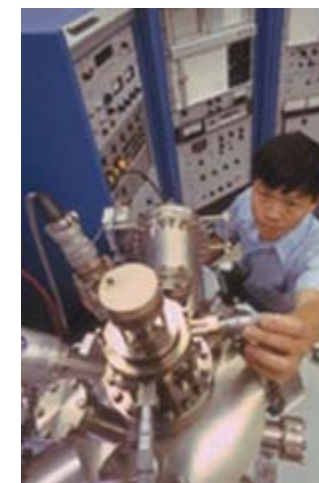
- 3 Every day provides the answer to "Why am I learning this?"
- 3 Ties together the subject areas of math, science, engineering technology and communications.
- 3 Has very high student success rate.
- 3 Instruction revolves around solving real-world industry problems.
- 3 Uses student teams to solve these industry problems.
- 3 Additional support is provided from your instructors because they are part of a teaching team.
- 3 Provides more hands-on instruction, giving you an opportunity to apply what you are learning.
- 3 Uses technology applications for data collection and analysis, research, problem solving and presentations.
- 3 Equips you for the workplace.

Both SC ATE engineering technology offerings are designed to meet the different learning needs of students and model the workplace. Because you gain experience working in a problem-solving and team environment, SC ATE classes will enhance your value to potential employers.

Let SC ATE's engineering technology put *you* in the driver's seat. Your success is our ultimate goal.

For more information on engineering technology careers, visit our web site at [www.scate.org](http://www.scate.org).

Contact your local technical college to find out about the SC ATE engineering technology programs available in your area.

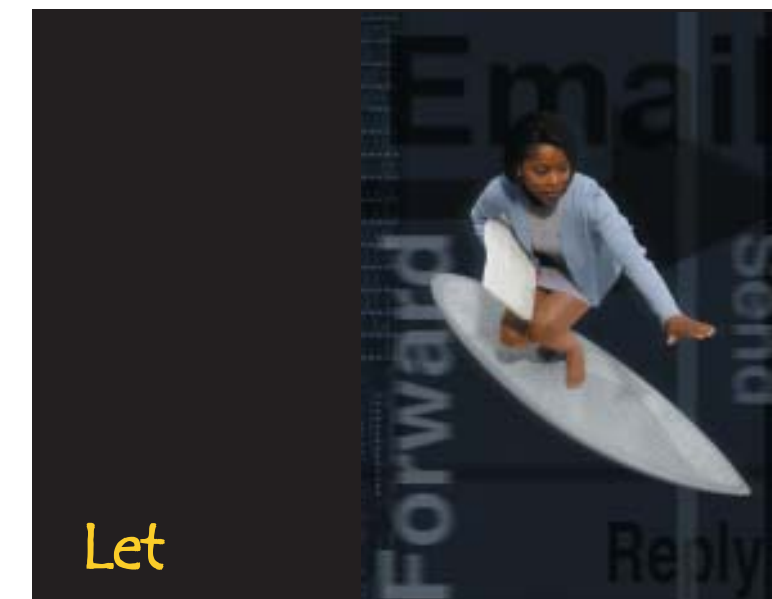


**South Carolina  
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Center of Excellence**

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Let  
Engineering  
Technology



Put You  
in  
Control

South Carolina Advanced Technological Education  
Center of Excellence



### Let engineering technology put you in the driver's seat.

- You know what you're looking for...
- ...A good job with good pay.
- ...Challenges and rewards.
- ...A chance to use your brain and your hands to solve problems.
- ...Teamwork.
- ...A way to ride the high-tech wave revolutionizing the way the U.S.--and the world--does business.

Engineering technology (ET) may be the opportunity you've been looking for to take control and get your career headed in the right direction.

And SC ATE classes at South Carolina technical colleges can get you on your way.

But, first things first.

### What is the difference between an engineer and an engineering technician?

Engineering technicians use knowledge in science, math and engineering with technical, hands-on skills to support the research, planning and design work of engineers and scientists.

An engineer may be responsible for designing a new product. An engineering technician will take the design and implement processes necessary to have a finished product. For example, an engineer may plan and design a bridge, while technicians estimate construction costs and specify materials to be used.



A student who works well with others and enjoys the exciting challenge of finding practical solutions to technical problems and implementing solutions through hands-on activities should consider a career in engineering technology.

Technicians often work with:

- 3 Manufacturing.
- 3 Engineering operation.
- 3 Product design and development.
- 3 Process design.
- 3 Quality control.
- 3 Production.

Career options include work with the construction of facilities and transportation systems; manufacture and operation of machinery and equipment; development of new products, including pharmaceuticals and chemicals; and, troubleshooting manufacturing processes to ensure the ongoing operation of high-tech equipment.

Ultimately, technicians support the work of providing products that people need and enable their communities to benefit from the latest technological advances.

Most technicians specialize in certain areas, with occupational titles that follow the same structure as in engineering. Civil engineering technicians help civil engineers build highways, bridges, dams and other structures. Mechanical engineering technicians help mechanical engineers manufacture industrial machinery and other equipment. Electronics engineering technicians help develop, test and manufacture electrical and electronic equipment such as radios, navigational equipment, medical devices and computers.

Nationally, median earnings for an engineering technician fall between \$20,200 and \$54,800, according to the U.S. Bureau of Labor Statistics.

Numerous associate degree programs are offered throughout the SC Technical College System, including degree programs in electronics engineering technology, engineering graphics technology, mechanical engineering

technology, civil engineering technology, chemical engineering technology and general engineering technology.

South Carolina technical colleges offer engineering technology programs accredited by the national Accreditation Board for Engineering and Technology (ABET).

### What are the needs?

A shortage of highly qualified engineering technicians exists nationally and in South Carolina. According to the U.S. Bureau of Labor statistics, the number of jobs for technicians and related support workers is projected to increase 20 percent from 1996 to 2006.

