

Curriculum

Preparing for a career as a robotics engineering technician involves studying the following subjects:

- AUTOMATION/ROBOTICS
- COMPUTER PROGRAMMING
- CAD/CAM
- DIGITAL ELECTRONICS
- EMBEDDED SYSTEMS
- MANUFACTURING
- MATHEMATICS
- MECHANICAL SYSTEMS
- PHYSICS
- QUALITY CONTROL

Project Partners

The secondary school partners include A.W. Beattie Career Center, Connellsville High School, McKeesport High School & Technology Center, and Mercer County Career Center. Other secondary schools may participate. Cal U offers associate's and bachelor's degree options. Carnegie Mellon University's Robotics Academy is working with Cal U to provide and support the robotics curriculum. The Technology Collaborative, a not-for-profit economic development corporation in Pittsburgh, is the robotics industry liaison and fiscal agent.



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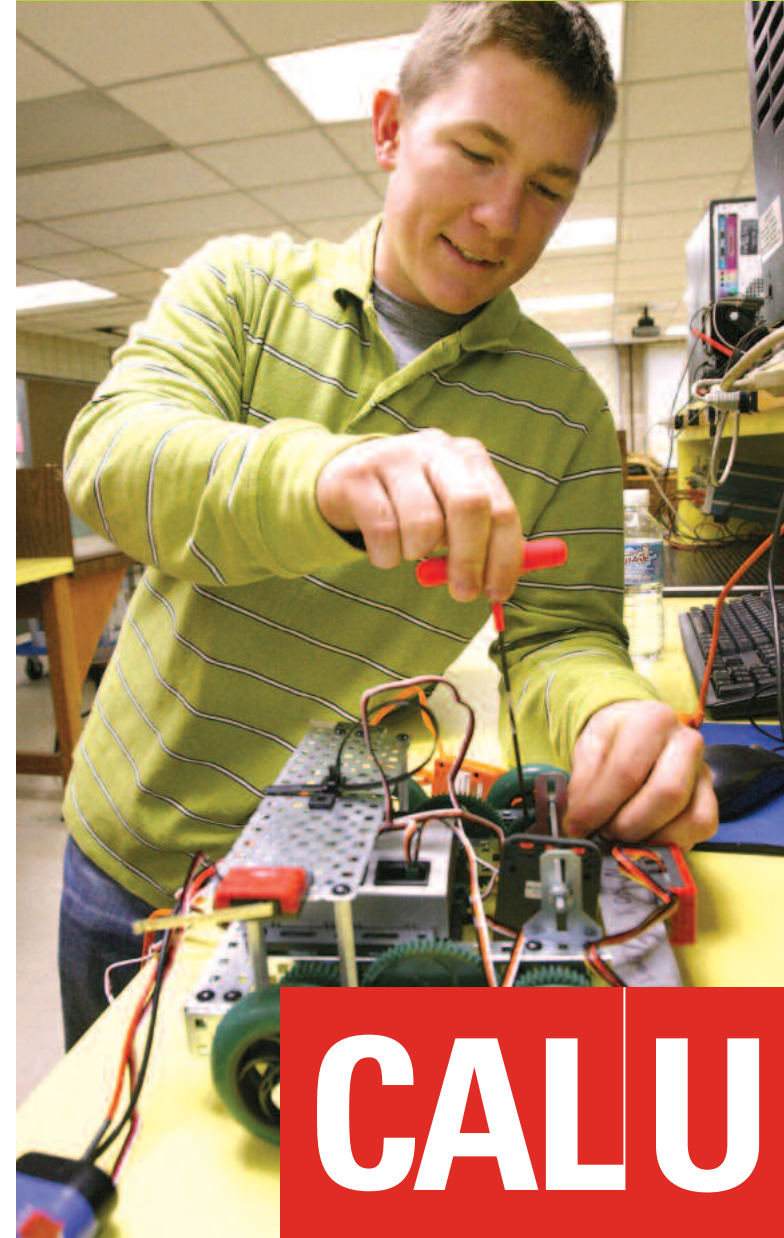
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Applied Robotics Technology

2+2+2 PROGRAM



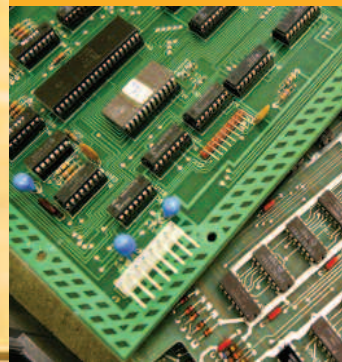
CALU



Kick start your career with 2+2+2

The 2+2+2 program brings robotics case studies and hands-on laboratory experiences into computer technology and electronics technology classes at partnering high schools. Students who successfully complete the program will receive 15 advanced placement credits which can be applied to an industrial technology associate degree at Cal U. From there, they can choose to enter the workforce or to continue their education, applying credits toward a bachelor's degree at Cal U.

The 2+2+2 program benefits both students and employers. Students qualify for high-tech jobs, while employers get qualified, educated workers to help fill the growing need for experts in the field.



The 2+2+2 program was developed by the Pennsylvania Department of Community and Economic Development in response to the high demand for individuals with the skills to design, produce, operate, maintain and service robots in a variety of fields including healthcare, manufacturing, defense, and homeland security.

The 2+2+2 Robotics program at Cal U prepares high school students to **accelerate** their **education** and **career opportunities** through partnerships that **guide** their education in two year segments that begin while the student is in their junior year of high school.

This unique workforce development partnership allows high school students to work toward their associate's degree, eventually receiving a bachelor's degree from California University of Pennsylvania. The 2+2+2 program is supported by The Technology Collaborative, a statewide economic development organization. Guidance and support are also provided by Carnegie Mellon University's Robotics Academy, which provides expert advice and leadership on the robotics curriculum.

Students who enter the 2+2+2 Robotics program will be poised for career success as they help to meet the growing need for educated robotics professionals.

“ This project has placed Cal U on the leading edge in developing an education for new agile robotics. ”



2+2+2

2+2+2 = a future in robotics

Graduates who earn their degrees from California University of Pennsylvania can expect to go far in this exciting and dynamic field of growth. The opportunities available in the robotics industry are growing daily. Workers will need skills in electronics, mechanical technologies, embedded computing, and information technology. Cal U's program links computer science and technology education, and gives students the edge they need to fast track their futures.

Cal U's Applied Engineering and Technology department offers degrees in Computer and Electrical engineering technologies and Industrial technology.

To learn more, visit

The California University of Pennsylvania Department of Applied Engineering and Technology: www.cup.edu/eberly/aet

Carnegie Mellon Robotics Academy: www.education.rec.ri.cmu.edu

The Technology Collaborative: www.techcollaborative.org

California University of Pennsylvania, is a proud member of the Pennsylvania State System of Higher Education, and is a diverse, caring and scholarly learning community dedicated to excellence in the liberal arts, science and technology, and professional studies. For more than 150 years, it has been known for its educational excellence, and for its mission of integrity, civility and responsibility.

Cal U is located in the Borough of California, PA, a community of approximately 6,000 residents, located on the banks of the Monongahela River, about one hour south of Pittsburgh.

For more information

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