Degree Benefits
A Bachelor of Science in Technology Education provides students with several career options. Most graduates teach on the elementary, middle or secondary school level, but many attend graduate school and eventually teach at the college or university level. The current directory of the National Association of Industrial Technology & Council on Technology Teacher Education lists more than two dozen graduates of the program as college professors across the country.

Many other graduates distinguish themselves in industrial and government positions. Some graduates own and operate their own successful businesses. Small class sizes, individual advising and supervised field experiences with children are the strengths of the program. Majors must successfully complete one semester of student teaching, including classroom experience at two grade levels. Certification to teach K-12 is awarded upon graduation and completion of state certification requirements. The College of Education is accredited by the National Council for Accreditation of Teacher Education. The Career and Professional Development Center office actively aids students seeking teaching positions.

Job Options
Currently, there is a significant shortage of technology education teachers within Pennsylvania and throughout the nation, which has resulted in the program having excellent placement rates. The Career and Professional Development Center reports more than six openings per graduate during the past year. Since 1992, every Cal U technology education graduate who sought a teaching position was employed. Most graduates report receiving multiple offers. The shortage of teachers is projected to continue for the next six to 10 years.

Program Objectives
Technology education majors are required to complete a series of laboratory classes related to the technological systems of communication, construction, manufacturing and transportation. In these laboratory courses, students develop skills in the safe and appropriate use of tools, materials and processes as they design, produce, use and evaluate technological systems.

Technology education includes the study of selected technological systems that explore the solutions of technological problems and their associated social and environmental impacts. Computer applications using current software and support devices are emphasized. Students interact extensively with the universal systems model. Once equipped with an extensive understanding of the technological systems and the universal systems model, students have the opportunity to evaluate the social, cultural, economic and environmental impacts of technology.

Certification Program
Admission to the certification program requires:
- 2.8 GPA and 30 hours of field experience.
- Successful completion of the PAPA assessments.
- Successful completion of a three-credit American/English literature course and a three credit English composition course.
- Successful completion of six credits of college-level math.
- Completion of a speech and hearing test.
- Current Act 34, 114 and 151 clearances.

These requirements must be made by the time you earn 65 credits.

University Resources
All students enrolled in education programs at Cal U are required to complete a portfolio, which is an integral part of the student’s educational experience at the University. Cal U has one of the largest technology education programs in the country. Still, classes are small with maximum class sizes of 20 to 24 students, which means students receive individual attention from professors.

The technology education program was one of the first in the nation to be accredited by the National Council for Accreditation of Teacher Education (NCATE), and the International Technology and Engineering Educators Association’s (ITEEA) Council on Technology Teacher Education (CTTE). Also, the program is accredited by the Pennsylvania Department of Education (PDE).

BACHELOR OF SCIENCE IN EDUCATION
GRADUES 4-8 EDUCATION—136 CREDITS
The following eight-semester schedule of courses provides a recommended framework for completing this program of study in four years. To ensure that they are making satisfactory academic progress, students should consult with their faculty adviser, ensure that they complete necessary prerequisites and required courses in sequence, and complete a minimum of 15 credits each semester.
### Freshman Year

**First Semester** ................................................................. 16 credits
- ENG 101 English Composition I .............................................. 3 crs.
- MAT 181 College Algebra .................................................... 3 crs.
- TED 105 Communicating Technical Designs .......................... 3 crs.
- TED 111 Information Systems .............................................. 3 crs.
- UNI 100 First Year Seminar ................................................ 1 cr.

**Second Semester** .......................................................... 15 credits
- Approved Literature Course .................................................. 3 crs.
- MAT 191 College Trigonometry .............................................. 3 crs.
- TED 100 Intro to Technology Education ................................. 3 crs.
- TED 210 Design & Appropriate Technology ........................... 3 crs.

### Sophomore Year

**Third Semester** .............................................................. 16 credits
- General Education (Fine Arts) ............................................. 3 crs.
- General Education (Science-Lab) ......................................... 4 crs.
- ITE 250 Intro to Automation or RET 110 ............................... 3 crs.
- PSY 100 General Psychology ................................................ 3 crs.

**Fourth Semester** ............................................................ 15 credits
- General Education (Science) ................................................. 3 crs.
- EDU 310 Teaching in Multicultural Society ........................... 3 crs.
- EDU 350 Supporting the English Language Learner ............... 3 crs.
- TED 304 Designs and Bio-Related Technology ...................... 3 crs.
- Technical/Technological Elective .......................................... 3 crs.

### Junior Year

**Fifth Semester** ................................................................ 15 credits
- ESP 311 Assessment & Positive Behavior Interventions .......... 3 crs.
- TED 300 Assessment & Instruction in TED ............................ 3 crs.
- TED 302 Energy & Control Systems ...................................... 3 crs.
- TED 316 Structural Design ................................................... 3 crs.
- TED 346 Digital Communications ......................................... 3 crs.

**Sixth Semester** .................................................................. 15 credits
- HSC 315 First Aid & Personal Safety ...................................... 3 crs.
- TED 335 Transportation Systems .......................................... 3 crs.
- TED 436 Engineering Design and Development ..................... 3 crs.
- Technical/Technological Elective .......................................... 3 crs.
- General Elective .................................................................... 3 crs.

### Senior Year

**Seventh Semester** ............................................................ 15 credits
- TED 426 Manufacturing Enterprise ...................................... 3 crs.
- ESP 419 Evidence-Based Practice K-12 Inclusion .................. 3 crs.
- TED 450 Teach Technology in Secondary Schools ............... 3 crs.
- TED 451 Teach Technology in Elementary Schools ............. 3 crs.
- Technical/Technological Elective .......................................... 3 crs.

**Eighth Semester** ............................................................ 13 credits
- TED 461 Student Teaching ................................................... 10 crs.

In addition to the credit requirements of the program, students are required to complete all of the requirements for teacher education certification. Students should refer to the current Cal U undergraduate catalog and teacher education student manual to identify specific requirements. The policies and procedures described here may be reviewed and revised as the need arises. This fact sheet should be used as an information guide. For details on current policies and procedures, contact the department chair, Joseph Schickel, at Schickel@calu.edu.

### Program Contact Information

Contact the Department of Applied Engineering and Technology by phone at 724-938-4085.