



Department of Applied Engineering and Technology  
*School of Applied Sciences and Technology*  
College of Business & Technology (2017-18)

# Career & Technical Education

## B.S. Degree

Engineering/Technology Education Concentration

### Career & Technical Education at EKU

EKU has had teacher preparation programs for Career and Technical Education since the Department's historical beginning. Programs available for those who plan to teach and those who are presently teaching many technical subject areas include: Technical Education, Engineering/Technology Education, and Occupational Training and Development. An Agriculture Education program is also available. The technical teacher education programs are accredited by the Council for the Accreditation of Teacher Educator Training (CAEP). EKU has one of the largest and most comprehensive technical education programs in the State.

### Career & Technical Education Careers

A well-planned program for teacher preparation and a closely-articulated pathway for those presently teaching in the State's area technology centers, middle schools, high schools and Kentucky Community and Technical College (KCTCS) schools is available at EKU.

The Bachelor of Science Degree in Career and Technical Education prepares teachers for positions in technical education specialty areas such as construction, manufacturing, transportation and information technologies. The Engineering/Technology Education concentration is a unique, high-demand program that prepares teachers for middle schools and high schools -- an enjoyable teaching area that has many employment opportunities in Kentucky and other nearby states. Most Central and Southeastern Kentucky school systems employ technical teachers who are Department alumni.

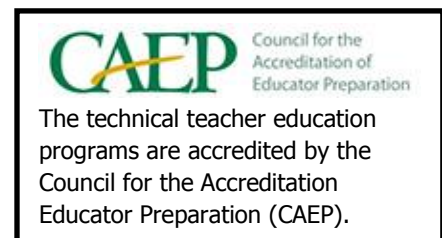
EKU also has a Certification Program and Associate of Science Degree in Career and Technical Education that is offered in conjunction with the Kentucky Department for Technical Education. These programs are for teachers of many technical programs, including electronics, health science, carpentry, welding, computer technology, industrial maintenance, and other high-tech areas, primarily in Central and Southeastern Kentucky.

### Department Facilities, Faculty & Student Organizations

The Department is located in the Ralph W. Whalin Technology Complex which includes approximately 100,000 square feet of classroom and laboratory space. Laboratories housed in the Whalin Complex include: aviation, electronics, computer aided drafting (CAD), graphic communications, quality assurance, industrial materials, metallic materials, construction fabrication, hydraulics/pneumatics and computer applications. The facilities are located in the central portion of campus, close to the library, classroom buildings and dormitories. Faculty in the department have diversified academic and experience backgrounds. They are experienced, enthusiastic and devoted to providing students the skills necessary to succeed.

### For More Information

Department of Applied Engineering and Technology  
307 Whalin Complex  
Eastern Kentucky University  
521 Lancaster Avenue  
Richmond, KY 40475-3102  
859-622-3232  
[www.technology.eku.edu](http://www.technology.eku.edu)





**Suggested Curriculum Guide for Career and Technical Education (Teaching),  
 Engineering/Technology Education Concentration**

**Freshman (1<sup>st</sup> Semester) 16 hrs**

- BTO 100** Orientation (1 hr)
- E-1A ENG 101 or 105** English Composition
- TEC 161** Computer Applications in Tech.
- TEC 190** Technical Graphics
- E-3A** Arts
- Wellness**

**Sophomore (1<sup>st</sup> Semester) 15.5 hrs**

- EDF 219** Human Development & Learning
- CED 200** Clinical II. Understanding Learner (.5 hr)
- EET 252** Digital Electronics
- AEM 201** Metallic Material Processes
- E-4A** Life Science
- E-5A** History

**Junior (1<sup>st</sup> Semester) 14.5 hrs**

- EDF 413** Assessment in Education (2)
- CED 400** Clinical IV. Diagnosis & Prescription (.5 hr)
- EMS 490** Classroom and Behavior Management (1 hr)
- SED 402** Differentiated Instruction (2 hr)
- CTE 361** Course Materials in CTE
- CTE 363** Evaluation in Career & Tech Ed.
- Technical Elective** (3 hrs)

**Senior (1<sup>st</sup> Semester) 15 hrs**

- ESE 552** Teach Career/Tech Ed in Mid/Sec
- TEC 404** Principles of Engr & Technology
- NET 303** LANs & PC Communications
- AEM 383** CAD/CAM Integration
- E-4B** Physical Science Lab

**Freshman (2<sup>nd</sup> Semester) 15.5 hrs**

- CTE 262** Foundations of CTE\*\*\*
- EDF 203** Introduction to Education (1 hr)
- CED 100** Clinical I. Intro to Ed. (.5 hr)
- CON 121** Intro. to Construction
- E-1B ENG 102** English Composition
- MAT 107 (2)** College Algebra
- E-1C** Oral Communication

**Sophomore (2<sup>nd</sup> Semester) 16.5 hrs**

- CED 300** Clinical III. Curriculum and Instruction design (.5 hr)
- EMS 300W** Curriculum & Instructional Design (1 hr)
- EMS 474** Teaching Content Reading
- NET 302** PC Troubleshooting & Construction
- E-3B** Humanities
- E-5B** Social & Behavioral Science
- Technical Elective** (3 hrs)

**Junior (2<sup>nd</sup> Semester) 15 hrs**

- CON 294** Construction Graphics
- EDF 319** Human Development & Learning
- AEM 371** Hydraulics and Pneumatics
- AEM 195** Computer Aided Drafting
- CON 201** Materials & Methods of Con. I
- BTS 300** Professional Skills Seminar (0 credit)

**Senior (2<sup>nd</sup> Semester) 16 hrs**

- CED 450** Clinical V. Practice Teaching (1 hr)
- CED 499** Clinical VI. The Professional Semester (9 hrs)
- TEC 303** Problem Solving & Engr Design
- E-6** Diversity of Perspectives & Experiences
- BTS 400** College to Careers Seminar (0 credit)

\* Those desiring eligibility to teach in pre-engineering education programs at the middle school and high school level should take the following General Education courses: CHE 111, MAT 107, 108; PHY 131.

**UNIVERSITY GRADUATION REQUIREMENTS**

General Education .....	36 hrs
Orientation Course (waived for transfers with 30+ hrs.) .....	1 hr
Wellness .....	3 hrs
Total Hours University Graduation Requirements .....	40 hrs

**College Requirements:**

BTS 300 and BTS 400 (CR only, no hrs) .....	0 hrs
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**Major Requirements** .....

CON 121, 201, 294; EET 252, NET 302, 303; AEM 195, 201, 371, 383; TEC 161, 190, 303, 404; select 3 hours from AVN 150, GCM 211, TEC 102 and 141.	45 hrs
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**Professional Education Core**.....

CTE 262, 361, 363; EDF 203(1), 219, 413(2), SED 104(element 6); EMS300W(1), 402 (2), 490(1), EMS 474, ESE 552, CED 100(.5), CED 200(.5), CED 300(.5), CED 400(.5), CED 450(1), CED 499(9)	37 hrs
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<b>Total Curriculum Requirements</b> .....	<b>121 hrs</b>
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