

(POC). The GMC generally is taken during the first two years of college. It covers two main themes—the contemporary Air Force and its organization and the development and history of air power.

The GMC is open to all students and those enrolled in this program incur no military obligation unless the student is on scholarship beginning the first day of the sophomore year. A leadership seminar is also offered during each semester. During these sessions cadets learn Air Force customs and courtesies, proper wear of the uniform, and the fundamentals of Air Force drill and ceremonies. The freshman course is taught on-campus at Eastern Kentucky University and at the University of Kentucky. The leadership seminar is available at the University of Kentucky. Students initially registering for the GMC should sign up for these classes in the same manner they register for other college courses. Normally, students will enroll in both the academic class and leadership seminar.

The last two years, called the Professional Officer Course (POC), is normally taken during the junior and senior years of college. The POC curriculum covers Air Force management leadership, U.S. defense policy, and military law. A basic requirement for entrance into the POC is for the applicant to have two academic years remaining at either the undergraduate or graduate level or a combination of both. Prior enrollment in the GMC is not required for a student to enroll in the POC but students must have completed the summer field training program.

Entrance into the POC is competitive. Any student wishing to apply should contact the Professor of Aerospace Studies, University of Kentucky, Lexington, KY 40506-0028, (859) 257-7115 as early as possible, but no later than December of their sophomore year in college or the year they desire to compete. Applicants for the POC attend a four or five week field training session during the summer preceding entry into the POC. Cadets receive travel pay to and from field training and are paid for the time spent there.

Scholarships

Scholarships are available to those qualified and selected students who enroll in the Air Force ROTC cadet program. These scholarships cover tuition and laboratory fees, provide an allowance for books, and provide a nontaxable subsistence allowance of \$300-\$500 per month. High school students are eligible for four-year Air Force ROTC scholarships. Applicants for four-year scholarships are evaluated on the basis of: the American College Test (ACT) or the Scholastic Aptitude Test (SAT); high school academic record; class ranking; extracurricular and athletic activities; personal interview; and ability to qualify on an Air Force medical examination.

Two and three year scholarships are also awarded to cadets in the Air Force ROTC program on a competitive basis. Applicants for these scholarships should contact the Professor of Aerospace Studies on campus. There is also an Express Scholarship Program designed to attract students majoring in academic areas critical to the Air Force. The Express Scholarship Program awards two and three year scholarships and the academic majors are updated annually.

Minor

MINOR IN AEROSPACE STUDIES

Requirements.....19 hours
 AFS 311, 312, 313, 314, 411, 412, 413, 414, and three hours of an elective approved by the Dean of the College of Business and Technology and the Professor of Aerospace Studies.

DEPARTMENT OF TECHNOLOGY

Chair
Dr. L. Tim Ross
(859) 622-3232
Whalin 302

Faculty

A. Adams, J. Adamson, S. Arias, V. Chandra, D. Dailey, R. Davis, W. Davis, B. Dyer, S. Fardo, D. Field, G. Gow, J. Kilgore, T. Lloyd, M. Marchant, A. Murdock, W. Reynolds, R. Richardson, L. Ross, S. Sgro, G. Steinbach, and J. Stratman

The Department of Technology offers Bachelor of Science degree programs in six areas: Aviation, Computer Electronic Networking, Construction Management, Industrial Technology, Graphic Communications Management, and Career and Technical Education.

DEPARTMENT GOALS

The Department of Technology seeks to prepare professionals for careers in Aviation, Computer Electronic Networking, Construction Management, Industrial Technology, and Graphic Communications Management through the Bachelor of Science degree programs; prepare technicians for careers in Computer Aided Drafting, Computer Electronics Technology, Digital Imaging Design and Quality Assurance Technology through the Associate of Applied Science degree programs; prepare professionals for careers in Career and Technical Education through certification, Associate of Applied Science, Bachelor of Science and Master of Science degree programs; to prepare selected professionals for advanced career opportunities in Industrial Technology through the Master of Science degree program; and to provide programs of quality instruction and professional services to the University and to the community.

AVIATION

Graduates of the Aviation program are prepared for professional careers in the aviation and aerospace fields.

The Professional Flight Option (PFO) prepares graduates for professional pilot careers. Graduates will be able to perform pilot duties of an aircraft carrying persons or property, plan and implement flight instruction, and will be qualified to fly an airplane solely by reference to instruments under instrument flight conditions (IMC).

The Aerospace Management (AM) option prepares graduates for management careers in the aviation and aerospace industry. Graduates of the AM option will be able to solve management and operational problems related to airline operations, demonstrate knowledge of corporate aviation, and demonstrate knowledge of how air transportation affects business, personal, and pleasure travel.





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COMPUTER ELECTRONIC NETWORKING

Graduates of the Computer Electronic Networking program are prepared for a career in the high-tech electronics industry with skills in analysis, installation/maintenance of digital electronic devices and actuators, programmable logic controllers, computer network systems, laser/fiber optics and communication equipment.

Graduates of this program will demonstrate proficiency in basic networking skills relevant to small office/home (SOHO) environments, demonstrate proficiency in basic computing skills, demonstrate fundamental knowledge in electricity/electronics, and demonstrate effective communication skills while conveying information to technical and non-technical audiences. The Computer Electronic Networking program is accredited by the Association of Technology, Management, and Applied Engineering.



**American Council for
Construction Education**

CONSTRUCTION MANAGEMENT

Graduates of the Construction Management program are prepared for careers with general contracting firms, starting in a variety of management positions. Typical entry-level positions include: assistant project manager, estimator, superintendent, project scheduler, cost engineer, and field engineer. The Construction Management program is accredited by the American Council for Construction Education. Graduates of this program will have oral, written and graphic communication skills for successful performance in a construction environment; possess functional computer skills including the utilization of general and construction application software; apply mathematical and scientific skills in the management and execution of construction projects; apply the concepts of management, accounting, economics and ethics in the management and execution of construction projects; possess a basic understanding of the science of materials and the methods by which they are placed into service, possess the essential plan reading, quantity takeoff and pricing skills to function as a junior estimator; be able to prepare a project budget, analyze cost reports and make cash flow projections for a project, be able to prepare a project schedule, monitor progress toward completion, and update the schedule as needed; possess an advanced knowledge of OSHA standards and be able to set up and enforce a safety plan on a job site, be able to interpret site plans, establish horizontal and vertical control on a site, and perform layout for buildings and utilities; be able to administer situations on a project site, including evaluation of subcontractor pay requests, writing of purchase orders, and recording change orders, subcontracts, shop drawings, and daily reports; perform in an acceptable manner in cooperative work assignments.



The Association of
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Management, and
Applied Engineering

INDUSTRIAL TECHNOLOGY

Graduates of the Industrial Technology Program are prepared for professional careers in manufacturing industries and businesses. The Manufacturing Option prepares graduates for entry-level positions that include: manufacturing engineer, production engineer, industrial supervisor, industrial engineer, industrial technician, and quality engineer. The Industrial Distribution Option, that includes a Business minor, prepares graduates for positions in all aspects of industrial distribution including: manufacturing, warehouse management, sales and marketing, logistics, inventory and profit management and supply chains/distribution operations.

Graduates of the Industrial Distribution Option in Industrial Technology will have oral, written and graphic communication skills for successful performance in a global supply chain environment; possess functional computer skills including the utilization of general and distribution specific supporting software to generate professional reports; be able to apply mathematical and scientific knowledge in the management and execution of global distribution problem solving; apply the concepts of accounting, economics, marketing and ethics in the management of a global distribution system; be able to apply technical knowledge through hands-on experiences to solve distribution problems; apply the knowledge of information-based inventory management to create competitive advantage; and integrate elements of distribution and logistic systems to identify and solve problems related to global customer needs.

Graduates of the Manufacturing Option in Industrial Technology will be able to relate terminology, techniques and methodology to applied technical managerial concepts; demonstrate the ability to formulate and apply technical problem solving and managerial concepts; be able to apply the concepts of mathematics and the physical sciences to solve technical problems. The BS degree program in Industrial Technology is accredited by the Association of Technology, Management, and Applied Engineering.

GRAPHIC COMMUNICATIONS MANAGEMENT

Graduates of the Graphic Communications Management program are prepared for a balance of technical skills and managerial competence to obtain successful careers in the printing and publishing industries. This four-year degree program provides up-to-date instruction for a high tech future in the third largest of manufacturing industries.

Graduates of the Graphic Communications Management program will demonstrate advanced competencies in printing and publishing processes and procedures; demonstrate technical competence during a cooperative education experience; demonstrate an understanding of printing processes and methods; and demonstrate competence in the common printing process.

CAREER AND TECHNICAL EDUCATION

Engineering/Technology Education Option

Graduates of the Engineering/Technology Education option of the B.S. degree program in Career and Technical Education are prepared for teaching careers at the middle school and high

school levels. An Engineering/Technology Education teacher is prepared to enjoy a career that is rewarding in many ways. The opportunity to plan and guide the learning experiences of students in the use of robots, computers and other “high tech” equipment in problem solving and production activities are rewards found in few other professions.

Graduates of the Engineering/Technology Education Option of the Career and Technical Education program will complete a student teaching experience in a professional setting; will be able to prepare a portfolio that includes instructional material development, samples of assessment and a professional growth plan; and will be able to demonstrate technical competence in the areas of 1) basic engineering/technology, 2) civil engineering/technology, 3) electrical engineering/technology, and 4) mechanical/industrial engineering technology.

Industrial Education Option

Graduates of the Industrial Education option of the B.S. degree program in Career and Technical Education are prepared for teaching careers in secondary schools and post-secondary technical colleges in technical areas such as: computer electronics, computer aided drafting (CAD), graphic arts and other technical occupational areas. An option is also offered in Occupational Training Development for those interested in training for business and industry.

Graduates of the Industrial Education Option of the Career and Technical Education program will be able to plan and implement instruction for technical education courses; be able to develop and analyze assessment instruments for technical education courses; be able to develop and apply appropriate teaching strategies for technical education courses; be able to complete a Practicum in Career and Technical Teaching in a professional setting; and will be able to demonstrate occupational/technical competence by obtaining discipline-specific expertise.

Occupational Training and Development Option

Graduates of the Occupational Training and Development option of the B.S. degree program in Career and Technical Education are prepared to plan and implement instruction for technical courses in a business and industry setting; are able to develop and analyze assessment instruments for technical courses; are able to develop and apply appropriate teaching strategies for technical courses; and are able to complete a Practicum in Career and Technical Teaching.

The BS program in Career and Technical Education is accredited by the National Council for Accreditation of Teacher Education.

ASSOCIATE OF APPLIED SCIENCE

The Department of Technology also offers Associate of Applied Science degree programs (two-year programs) in Technology and Career and Technical Education. The Associate of Applied Science degree in Technology offers the student a choice of technical concentration in four options: Computer Aided Drafting, Computer Electronics, Digital Imaging Design, and Quality Assurance. The AAS degree program in Technology is accredited by the Association of Technology, Management, and Applied Engineering.



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ASSOCIATE OF APPLIED SCIENCE - TECHNOLOGY

Computer Aided Drafting

Graduates of the Computer Aided Drafting (CAD) program option are prepared for careers as drafters or designers who use computer aided drafting and design systems to generate drawings in manufacturing industries and businesses. Graduates obtain jobs in manufacturing firms in the machinery, plastics and fabricated metals areas.

Graduates of the CAD option of the AAS in Technology program will be able to apply 2D software applications to communicate and solve design problems; apply 3D software applications to communicate and solve design problems; and will be able to convert orthographic and pictorial sketch information into detailed 2D/3D Computer Aided Drafting drawings that meet or exceed current industry standards.

Computer Electronics

Graduates of the Computer Electronics (CE) program option are prepared for a career as a computer electronic technician. Graduates obtain jobs in a wide variety of manufacturing and service industries requiring skilled technicians to install, troubleshoot and maintain microprocessors, system components, programmable logic controllers, computer hardware and software.

Graduates of the CE option of the AAS in Technology program will demonstrate fundamental knowledge in electricity/electronics at the technician's level; demonstrate proficiency in basic computing skills; demonstrate proficiency in basic networking skills relevant to small office/home (SOHO) environments; and demonstrate effective communication skills while conveying information to technical and non-technical audiences.

Digital Imaging Design

Graduates of the Digital Imaging Design (DID) program option are prepared with skills to create well designed images and documents for the printing and publishing industries and for the World Wide Web.

Graduates of the DID option of the AAS in Technology program will demonstrate competency in digital imaging design processes and procedures; be able to create documents for publication using software common to the industry; be able to create documents for the world-wide-web using software common to the industry; and will demonstrate competence in the common printing process.

Quality Assurance

Graduates of the Quality Assurance (QA) program option are prepared for careers in manufacturing industries as quality assurance technicians. Their task is to control the manufacturing process so that a quality product is produced.

Graduates of the QA option of the AAS in Technology will demonstrate proficiency in the fundamentals of practical statistical methods as applied to quality concepts and techniques; apply principles and make calculations in the areas of sampling and reliability; and will be able to anticipate, recognize, and

evaluate the impacts of quality assurance efforts.

ASSOCIATE OF APPLIED SCIENCE - CAREER AND TECHNICAL EDUCATION

The Career and Technical Education associate of applied science degree program is designed for in-service technical teachers employed in area technical centers and post-secondary technical schools. Graduates of the Career and Technical Education AAS degree program will be able to plan and implement instruction for technical education courses; develop and analyze assessment instruments for technical education courses; develop and apply appropriate teaching strategies for technical education courses; and complete a Practicum in Career and Technical Teaching.

MINORS

The department also offers minors in Aviation Administration, Aviation (Flight), Digital Imaging Design, Computer Electronics Technology, Construction Management, Industrial Technology and Quality Assurance.

ENDORSEMENT/CERTIFICATE

An endorsement in Industrial Computer Technology and a Career and Technical Education Certificate program for in-service technical teachers are also offered by the Department of Technology.

Baccalaureate Degrees

AVIATION (B.S.) AREA MAJOR

CIP Code: 49.0102

- University Requirement1 hour**
BTO 100.
- General Education Requirements30 hours**
Standard General Education program, excluding blocks II, IVB, VB, VII (NS), and VIII (6 hours). Refer to Section Four of this *Catalog* for details on the General Education and University requirements.
- College Requirement: Professional Skills Seminar**
BTS 300 (CR) and BTS 400 (CR).
- Supporting Course Requirements40 hours**
CSC 104 or CIS 212 or TEC 161; ECO 230; GEO 315; MAT 107, 108, 211 or 261; MGT 300 or 301, MGT 480 or INT 408; PHY 131 (5), 132 (5); PSY 200; and STA 215.
- Free Electives 12-16 hours**
- Major Requirements41-45 hours**
 - Aviation Core15 hours**
AVN 150, 315, 350, 410, 460.
Majors must also select an option in professional flight or aerospace management
 - Options:**
 - Professional Flight26 hours**
AVN 192 (5), 194A (1), 205A (1), 206A (1), 220 (4), 220A (1), 229A (1), 230A (1), 300 (2), 300A (1), 325, 400 (1), 400A (1), 425.
 - Aerospace Management30 hours**
AVN 340, 360, 370, 390, 401, 402; and twelve hours*^ from the following prefixes: ACC, AFS, AVN, CIS, ECO, FIN, GBU, INS, MGT, MKT, MSL, PUB, RST.

*Selection of lower division courses may result in

a failure to meet university requirement of 43 hours of upper division credits.
^May require prerequisites.

Total Curriculum Requirements128 hours

Students must take an Aviation exit examination before graduation.

CAREER AND TECHNICAL EDUCATION (TEACHING) (B.S.) AREA MAJOR

CIP Code: 13.1320

- University Requirement1 hour**
BTO 100.
- General Education Requirements48 hours**
Standard General Education program (MAT 107 or higher). Refer to Section Four of this *Catalog* for details on the General Education and University Requirements.
- College RequirementsProfessional Skills Seminar**
BTS 300 (CR) and BTS 400(CR). (Pre-Service Only)
- Major Requirements76-79 hours**
- Professional Education Core31-34 hours**
EDF 103* (1), CTE 261, 361, 363, 463 (12) or ESE 499 (12) and ESE 490, EDF 319, ESE 552, SED 401.
- Program Options:**
 - Agriculture Education45 hours**
Animal Science AGR 125, 126 and one class from AGR 321, 327, 328 or 380; Agricultural Systems Management AGR 213 and one class from AGR 272, 311, 362 or 383; Soil Science AGR 215 and one class from AGR 315, 317, or 318; Plant Science AGR 130, 131 or OHO 131, 132 and one class from AGR 312, 417 and OHO 384 or 385; Agriculture Business AGR 308 and one class from AGR 310, 350, 409 or 440. AGR 304, 305 plus 45 Agriculture or Horticulture electives to make 45 credit hours selected in consultation with your advisor.
 - Industrial Education**45 hours**
Forty-five semester hours of technical courses to be chosen in consultation with the advisor. A maximum of eighteen semester hours may be allowed by proficiency examination (CTE 204, 205, 206, 304, 305, and 306; TEC 349* (9 hours)).
 - Occupational Training and Development45 hours**
Forty-five semester hours of related occupational courses chosen in consultation with advisor.
 - Engineering/Technology Education*45 hours**
CON 121, 201, 250; EET 252, 302, 303**; INT 195, 371, 383; TEC 161, 190, 303, 404; select 6 hours from AVN 150, GCM 211, TEC 102, 141, 3 hours approved technical electives.
- Free Electives0-3 hours**
- Total Curriculum Requirements128 hours**

* In-service teachers and occupational trainers should substitute CTE 463 (4), CTE 164, CTE 364, SED 104, and TEC 161 for CTE 463 (12), EDF 103 (1), SED 401, and ESE 552. Nine hours of which can be selected from CTE 302 and 303 should be substituted for TEC 349 (9 hours).

**Graduates completing this program option must have a minimum of 2000 clock hours of planned and supervised work



experience in the occupation in which they will teach or a minimum of three years of approved work experience in the occupation in which they will teach. Students must also take the PRAXIS II Specialty Examination before graduation.

+Those desiring Pre-Engineering eligibility should take the following general education courses: CHE 111, MAT 107, 108, PHY 131.

++Complete an Endorsement for teaching Instructional Computer Technology by completing EET 403, TEC 255, and completing a major computer certification such as A+, Network+, MSCE.

Career and Technical Education options require all pre-service students to meet the general education knowledge for initial teacher preparation requirements (see College of Education section of this *Catalog*).

The BS degree program in Career and Technical Education is accredited by the National Council for Accreditation of Teacher Education.

COMPUTER ELECTRONIC NETWORKING (B.S.)

CIP Code: 15.1201

University Requirement1 hour
BTO 100.

General Education Requirements30 hours
Standard General Education program, excluding blocks II, IVB, VB, VII (NS), and VIII (6 hours). Refer to Section Four of this *Catalog* for details on the General Education and University requirements.

College Requirement: Professional Skills Seminar
BTS 300 (CR) and BTS 400 (CR).

Supporting Courses46 hours
CSC 160 and (CSC 177 or 190); ECO 230, MAT 108 and (211 or 261), INT 202, 310, 406, 408; PHY 131 (5), 132 (5); STA 215 or 270 or QMB 200; TEC 161; and 3 upper division hours of ACC*, CCT*, CIS*, FIN*, GBU*, INS*, INT*, MGT*, MKT*, QMB*, or RST* electives as approved by major advisor.

Free Electives9 hours
(A minimum of 4 semester hours must be Upper Division courses including Cooperative Education.)

Major Requirements.....42 hours
EET 251, 252, 253, 254, 257, 302, 303, 343, 351, 403 or 452, 440, 499; Select 6 hours from EET 349, 354, 395.

Total Curriculum Requirements128 hours

The Department of Technology’s Computer Electronic Networking degree program has an articulation agreement for transfer of credit and cooperation with Bluegrass Community and Technical College’s (formerly Lexington Community College) Associate in Applied Science Degree in Engineering Technology with Electrical Specialization.

*Prerequisite may be required for some course selections.

Students must take a Computer Electronic Networking exit examination before graduation. Graduates must have an overall GPA of 2.25 in major requirements.

The Computer Electronic Networking program is accredited by the Association of Technology, Management, and Applied Engineering.

CONSTRUCTION MANAGEMENT (B.S.)

CIP Code: 52.2001

University Requirement1 hour
BTO 100.

General Education Requirements30 hours
Standard General Education program, excluding blocks II, IVB, VB, VII (QS), and VIII (6 hours). Refer to Section Four of this *Catalog* for details on the General Education and University requirements.

College Requirement: Professional Skills Seminar
BTS 300 (CR) and BTS 400 (CR).

Supporting Course Requirements39-40 hours

ACC 201, CCT 201, ECO 230, GBU 204, GLY 108, TEC 161; MAT 108 and MAT 261, or six hours of higher level MAT courses; MGT 301 or INT 408, PHY 131 (5), 132 (5) or CHE 101, 107 (1); and three upper division hours of **ACC, CCT, CIS, ECO, FIN, GBU, INS, MGT, MKT, QMB, or RST electives as approved by major advisor.

Free Electives.....0 -1 hours

Major Requirements.....57 hours
CON 121, 201, 202, 221, 294, 303, 307, 320, 322, 323, 324, 349 (6), 420, 421, 423, 425, 426; FSE 361.

Total Curriculum Requirements128 hours

The Department of Technology’s Construction Management program has articulation agreements for transfer of credit and cooperation with Bluegrass Community and Technical College’s (formerly Lexington Community College) Associate in Applied Science Degree in Architectural Technology and the Associate in Applied Science Degree in Civil Engineering Technology.

Students must take a construction assessment examination before graduation. An exam fee is required.

+Two separate summer enrollments are recommended in order to achieve a total of 6 credit hours.

**Students wishing to pursue the Minor in Business must confer with their major advisor to make substitutions to the supporting course requirements. INS, QMB and RST courses do not apply to the Minor in Business.

The Construction Management program is accredited by the American Council for Construction Education.

GRAPHIC COMMUNICATIONS MANAGEMENT (B.S.)

CIP Code: 10.0302

University Requirement1 hour
BTO 100.

General Education Requirements33 hours
Standard General Education program, excluding blocks II, IVB, VB, and VIII (6 hours). Refer to Section Four of this *Catalog* for details on the General Education and University requirements.



College Requirement: Professional Skills Seminar
BTS 300 (CR) and BTS 400 (CR).

Supporting Course Requirements.....28 hours
ACC 201; CHE 101, 107 (1); CSC 160; ECO 230; GBU 204;
MAT 107; ACC 202 or ECO 300 or MGT 301 or MKT 301;
PHY 101 and STA 215.

Free Electives.....18 hours

Major Requirements.....48 hours
EET 303, GCM 211, 217, 316, 317, 319, 349 (6 hours),
410, 414; INT 202, 408; TEC 161, 255, 313, and 355.

Total Curriculum Requirements.....128 hours

Students must take a Graphic Communications Management assessment examination before graduation.

INDUSTRIAL TECHNOLOGY (B.S.) AREA MAJOR

CIP Code: 15.0612

Prior to enrolling in the last 60 hours of the Industrial Technology degree program students must complete INT 238, 201, 202, TEC 161, 190, MAT 108, PHY 131, CHE 101, 107 (1) or CHE 111, 115 (1); and STA 270 or 215 or QMB 200 and have an overall 2.0 GPA and 2.25 major GPA. Graduates must have an overall GPA of 2.25 in the major with no major grade below a "C-". Transfer students will be treated on an individual basis. The Industrial Technology program is accredited by the Association of Technology, Management, and Applied Engineering.

University Requirement1 hour
BTO 100.

General Education Requirements30 hours
Standard General Education program, excluding blocks II, IVB, VB, VII (3 hours), and VIII (6 hours). Refer to Section Four of this *Catalog* for details on the General Education and University requirements.

College Requirement: Professional Skills Seminar
BTS 300 (CR) and BTS 400 (CR).

Supporting Course Requirements for Industrial Distribution.....42 hours
ECO 230, MAT 108, 211 or 261 or 6 hours of higher level MAT courses; STA 215 or 270 or QMB 200; CHE 101, CHE 107 (1) or CHE 111, 115 (1); PHY 131 (5); ACC 201, ACC 202, GBU 201, GBU 204, MKT 300; select two courses from CCT 300, CIS 300, FIN 300, MGT 300.

Supporting Course Requirements for Manufacturing.....28 hours
ECO 230, CON 420 or ECO 300; MAT 108, 211 or 261 (or six hours of higher level MAT courses); PHY 131 (5); CHE 101, CHE 107 (1) or CHE 111, CHE 115 (1); STA 215 or 270 or QMB 200; INT 349 (4).

Major Requirements.....36 hours
Industrial Technology Core:
EET 251, INT 201, 202, 308, 310, 352, 371, 406, 408, 499; TEC 161, 190.
Major must select an option in Industrial Distribution or Manufacturing.
Options:
Industrial Distribution.....18 hours
INT 200, 320, 400, 506, MKT 312 or 401.
Select 3 hours of U.D. technical electives from:
EET 351, INT 332, 336, 349, TEC 313.
Manufacturing.....24 hours
INT 238, 301, 330.

Select 3 technical hours from:
EET 252, INT 192, 195; GCM 211.
Select 12 hours of U.D. technical electives from:
EET 350, 351, 440, 452; CON 303; INT 320, 332, 336, 383, 390, 392, 397, 506, 530; TEC 313.

Free Electives (Industrial Distribution Option)....1 hour
Free Electives (Manufacturing Option).....9 hours
Total Curriculum Requirements.....128 hours

The Department of Technology's Industrial Technology degree program (Manufacturing Option) has an articulation agreement for transfer of credit and cooperation with Bluegrass Community and Technical College (formerly Lexington Community College) Associate in Applied Science Degree in Engineering Technology with Electrical Specialization. In addition, the Department of Technology's Industrial Technology degree program (Manufacturing Option) has an articulation agreement for transfer of credit and cooperation with Bluegrass Community and Technical College (formerly Central Kentucky Technical College) and Somerset Community and Technical College's Associate of Applied Science in General Occupational/Technical Studies including the areas of Machine Tool Technology, Industrial Maintenance, Industrial Electronics and Computer Aided Drafting.

Students must take an assessment examination before graduation. An exam fee is required.
+Transfer students (Manufacturing Option) with an associate degree in an industrial related field may not need to take these 12 hours of electives if upper division requirement can be completed.

*Industrial Technology majors may apply INT 310 in lieu of CCT 300 toward the minor in Business.
Incorporates a Business Minor into the Industrial Distribution Option.

Associate Degrees

CAREER AND TECHNICAL EDUCATION (TEACHING) (A.A.S.)

CIP Code: 13.1319

Enrollment in this program is restricted to in-service technical teachers and graduates of a Kentucky Vocational/ Technical School post-secondary program.

University Requirement1 hour
BTO 100.

General Education Requirements20 hours
Six hours of English composition, three hours of mathematics (MAT 107 or higher-level mathematics), three hours of general education humanities, three hours of general education social science, and five hours of general education electives. Refer to Section Four of this *Catalog* for details on General Education and University requirements.

Supporting Course Requirements.....21 hours
CTE 261, 361, 364, 463**(12).

Major Requirements.....24 hours
TEC 161 and 21 hours chosen from the technical area, or related to the area, in which the individual proposes to teach, as approved by the advisor. Graduates of this program must have a minimum of 4,000 hours of supervised work experience or four years of occupational experience in the area to be taught. Nine hours maximum may be allowed by

proficiency examination (CTE 204, 205, and 206). Nine hours may be supervised work experience (TEC 349).

Total Curriculum Requirements.....66 hours

**In-service teachers should substitute CTE 164, 363, 463 (4), and EDF 319 or SED 104 for CTE 463 (12).

Students must take a professional vocational technical education assessment examination and the Teacher Occupational Competency Test (TOCT) before graduation.

The AAS degree program in Career and Technical Education is accredited by the National Council for Accreditation of Teacher Education.

TECHNOLOGY (A.A.S.)

CIP Code: 15.0612

University Requirement1 hour
BTO 100.

General Education Requirements18 hours
ENG 101 and 102 or 105 (6 hours); MAT 107 or higher (3 hours); humanities (3 hours); ECO 230 (3 hours); CMS 100 (3 hours).

Option Requirements.....39-44 hours

Computer Aided Drafting (41 hours)

CON 303; INT 192, 195, 201, 330, 383, 390, 392, 397; MAT 108; PHY 131 (5); TEC 161, 190.

Computer Electronics (44 hours)

CSC 160 or 177; EET 251, 252, 253, 254, 257, 302, 303, 343, 351, 399; MAT 108; PHY 131 (5); TEC 161.

Digital Imaging Design (40 hours)

CHE 101, 107 (1); CSC 160; EET 303; GCM 211, 217, 316, 317, 319; TEC 161, 190, 255, 313, 355.

Quality Assurance (39-40 hours)

CHE 101, CHE 107 (1) or CHE 111, CHE 115 (1); EET 251; INT 201, 202, 238, 301, 330, 332, 336; MAT 108; QMB 200 or STA 215 or 270; TEC 161, 190.

Free Electives.....1-6 hours

Total Curriculum Requirements.....64 hours

Students must take an assessment examination before graduation.

The AAS degree program in Technology is accredited by the Association of Technology, Management, and Applied Engineering.

Minors

**MINOR IN AVIATION (FLIGHT)
Aviation Program**

Requirements.....23 hours

A student may minor in aviation (flight) by completing a minimum of 23 semester hours as follows: AVN 150, 192, 194A, 205A, 206A, 220, 220A, 300; 315; GEO 215. No more than 12 hours of core courses taken for the aviation (administration option) major may be counted toward the minor in aviation (flight).

**MINOR IN AVIATION ADMINISTRATION
Aviation Program**

Requirements.....21 hours

A student may minor in aviation administration by completing a minimum of 21 semester hours as follows: AVN 150, 315, 340, 350, 410, 460, and three hours of approved electives. No more than 12 (flight) hours of core courses taken for the aviation major may be counted toward the minor in aviation administration.

MINOR IN DIGITAL IMAGING DESIGN

Required Courses.....12 hours

GCM 211, 217, 317, and TEC 313.

Supporting Courses6 hours

Select six semester hours from GCM 316, 319, TEC 255 and 355.

Total Requirements18 hours

MINOR IN COMPUTER ELECTRONICS TECHNOLOGY

Requirements.....18 hours

EET 252, 253, 254, 354, 302 and 303. No more than nine hours of courses taken for a major may be counted toward this minor.

MINOR IN CONSTRUCTION MANAGEMENT

Requirements.....21 hours

CON 121, 201, 202, 323, 324, 421, and CON 294. No more than nine hours of courses taken for a major may be counted toward this minor.

MINOR IN INDUSTRIAL TECHNOLOGY

Requirements.....21 hours

TEC 190, INT 201, 202*, 238*, 308, and six hours of INT upper division electives. No more than nine hours of courses taken for a major may be counted toward this minor.

+STA 215 or 270 (Gen. Ed. VII) or QMB 200 and MAT 107 or higher are prerequisites for INT 202.

*CHE 101, 107 (1) or CHE 111, 115 (1) Gen. Ed. Block IVB is a prerequisite for INT 238.

MINOR IN QUALITY ASSURANCE TECHNOLOGY

Requirements.....18 hours

STA 215 or 270, INT 202, 332, 336, 506, and 530. No more

than nine hours of courses taken for a major may be counted toward this minor.

Endorsements

INSTRUCTIONAL COMPUTER TECHNOLOGY

The requirements for an Instructional Computer



Technology Endorsement for Career and Technical Education are: EET 252, 302, 303, 403, and TEC 255. Must have completed a major computer certification such as A+, Network +, MSCE, CCNA, CCNP and requirements for the B.S. Degree in Career and Technical Education.

CAREER AND TECHNICAL EDUCATION PROFESSIONAL CERTIFICATION*

Enrollment in this program is restricted to those who are currently employed as technical teachers and required to become certified as teachers of Vocational/Technical Education: Industrial Education.

General Education Requirements20 hours

ENG 101, 102; MAT 107, three hours of General Education humanities, three hours of General Education social science and five hours of General Education electives.

Professional Education Requirements22 hours

CTE 164, 261, 361, 363, 364, 463 (4 hrs.); EDF 319 or SED 104.

Major Requirements.....24 hours

TEC 161 and 21 hours chosen from the technical area, or related to the area, in which the individual is teaching, as approved by the advisor. Eighteen hours may be allowed by proficiency examination (CTE 204, 205, 206, 304, 305, and 306). Nine hours by proficiency examination may be applied to the Associate Degree and 18 hours to the Bachelors Degree in Career and Technical Education.

Total Curriculum Requirements.....66 hours

*Based on recommendation from ECU, Certificate is awarded by the Education Professional Standards Board.

