Associate in Applied Science

Manufacturing Industrial Technology:

Engineering Technology

Jefferson Community & Technical College
HIGHER EDUCATION BEGINS HERE

This program gives individuals the background to work as assistants to engineers or as liaisons between engineers and skilled craftsmen, and as plant maintenance specialists. The Engineering Technology degree allows students to tailor their degrees to their own interests while providing them with a broad understanding of technologies commonly used in industry.

All ET students seeking the AAS degree must complete the technical core and the general education courses listed below:

Technical Core courses (start here!):

All of these:

- ❑ Computer Literacy (IT100, CIS100, or equivalent)
- ❑ ENGT110 *Electrical Circuits I*
- ❑ ENGT114 *Electrical Circuits II*
- ❑ ENGT210 *Devices I*
- ❑ ENGT120 *Digital Logic Circuits*

One of these:

- ❑ BRX120 *Basic Blueprint Reading* OR
- ❑ CAD100 *Introduction to Computer Aided Design*

One of these:

- ❑ ET234 *Computer Hardware Maintenance OR*
- ❑ ET250 *Programmable Logic Controllers*

General Education Core courses (all of these):

- ❑ ENG 101 *Writing I*
- ❑ Oral Communication Course
- ❑ Social Interaction Course
- ❑ Heritage/Humanities Course
- ❑ MT150 *College Algebra* OR MT 125 Technical Mathematics
- ❑ PH 171 *Applied Physics* OR **approved** science course (higher level physics or chemistry)

Electronic Specialization Courses:

- ❑ ENGT214 *Devices II*
- ❑ ENGT220 *Digital II*
- ❑ Technical Electives (13 credit hours)

Industrial Specialization

- ❑ ENGT214 *Devices II*
- ❑ ENGT220 *Digital II*
- ❑ ET244 *Electrical Machinery and Controls*
- ❑ Technical Electives (15 credit hours)

Apprenticeship Specialization

- ❑ APS201 Apprenticeship Studies (24 hours)

Computer Maintenance Specialization

- ❑ ET232 *Computer Software Maintenance*
- ❑ ENGT220 *Digital II*
- ❑ NIS160 *Networking Core Technologies* OR IT120 *Cisco Internetworking I*
- ❑ Technical Electives (12 credit hours) – IT or NIS courses

Mechanical Specialization

- ❑ CHE105 *General College Chemistry I*
- ❑ ET201 *Statics and Strengths of Materials*
- ❑ ET210 *Thermodynamics Applications*
- ❑ ET264 *Mechanical Design*
- ❑ Technical Electives (10 credit hours) – suggest courses from CAD or Robotics specializations.

Computer Aided Design Specialization

- ❑ CAD150 *Intro to Programming: CAD OR* ADFT130/131 *Introduction to Architecture and Lab*
- ❑ CAD200 *Intermediate CAD*
- ❑ CAD201 *Advanced CAD*
- ❑ Technical Electives (14 credit hours)

Note: BRX120 and CAD100 are prerequisites. One of these can be used for elective hours.

Robotics and Automation Specialization

- ❑ ET118 Computer Numerical Control
- ❑ ET265 Applied Fluid Power
- ❑ ENGT260 *Robotics and Industrial Automation*
- ❑ EET270/271 *Electrical Motor Controls I and Lab OR* ET244 *Electrical Machinery and Controls*
- ❑ Technical Electives (13 credit hours)

Technical Electives: It is recommended that you meet with the Academic Program Coordinator to select electives appropriate to your specialization.

- ❑ ET122/124 Mechanical Power Transmission and Lab
- ❑ ENGT214 *Devices II*
- ❑ ENGT220 *Digital II*
- ❑ ET244 *Electrical Machinery and Controls*
- ❑ ET232 *Computer Software Maintenance*
- ❑ NIS160 *Networking Core Technologies*
- ❑ IT120/122/220/222 *Cisco Internetworking I, II, III, and IV*
- ❑ CHE105 *General College Chemistry I*
- ❑ ET201 *Statics and Strengths of Materials*
- ❑ ET210 *Thermodynamics Applications*
- ❑ ET264 *Mechanical Design*
- ❑ CAD150 *Intro to Programming: CAD*
- ❑ ADFT130/131 *Introduction to Architecture and Lab*
- ❑ CAD200 *Intermediate CAD*
- ❑ CAD201 *Advanced CAD*
- ❑ ET118 Computer Numerical Control
- ❑ ET265 Applied Fluid Power
- ❑ ENGT260 *Robotics and Industrial Automation*
- ❑ Engineering courses such as second semester Physics, Calculus or Chemistry. Check with Program Coordinator.

Note: ET students should see an ET Program faculty member for advising before registering for courses <u>each</u> semester to ensure timely completion of degree.

KCTCS
Kentucky Community & Technical College System

For more information contact:

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EDUCATION PAYS

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