Diploma Programs in
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 diplomas allow students to take a minimal amount of general education while still obtaining a broad understanding of technologies commonly used in industry.

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

Technical Core courses (start here!):
- ❑ Computer Literacy
- ❑ ENGT110 *Electrical Circuits I*
- ❑ ENGT114 *Electrical Circuits II*
- ❑ ENGT210 *Devices I*
- ❑ ENGT120 *Digital Logic Circuits I*

At least one of these:
- ❑ BRX120 *Basic Blueprint Reading* OR
- ❑ CAD100 *Introduction to Computer Aided Design* OR
- ❑ DFT122 *Introduction to Computer Aided Drafting* OR
- ❑ EET148 *Electronic Drafting (Not offered at Jefferson)*

At least one of these:
- ❑ ET234 *Computer Hardware Maintenance OR*
- ❑ IT105 *Computer Maintenance Essentials* OR
- ❑ ENGT105 *Computer Maintenance Essentials* OR
- ❑ ET250 *Programmable Logic Controllers* OR

General Education Core courses:
- ❑ MT150 *College Algebra* OR MT 125 Technical Mathematics
- ❑ Writing or Oral communications course

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

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

Apprenticeship
- ❑ APS201 Apprenticeship Studies (24 hours)

Communications Technician
- ❑ Electronics Tester certificate, plus:
- ❑ ENGT210 *Devices I*
- ❑ ENGT214 *Devices II*
- ❑ ENGT120 *Digital Logic Circuits*
- ❑ ENGT250 *Electronics Communication*
- ❑ Tech Electives (12 credit hours)

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

Mechanical Technician
- ❑ 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.

Engineering Design Technician
- ❑ 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: Students will need BRX120 and CAD100) – suggest courses from Mechanical or Robotics specialization.

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

Technical Electives: See program coordinator to develop a plan of approved technical electives for your specific program. Courses listed below are likely to be offered at Jefferson.

- ❑ ET122 Mechanical Power Transmission (ET124 – Lab)
- ❑ ET118 Computer Numerical Control
- ❑ ET265 Applied Fluid Power
- ❑ ENGT260 *Robotics and Industrial Automation/Labs*
- ❑ ET290 Selected Topics in Engineering Technology
- ❑ Courses listed under other specializations may be used as technical electives if approved by program coordinator.
- ❑ Engineering courses such as second semester Physics, Calculus or courses transferred from an engineering program – check with Program Coordinator.

Note: ET students must see an ET Program faculty member for advising before registering for courses each semester to ensure timely completion of degree.

KCTCS Kentucky Community & Technical College System

For more information contact:

Prof. Mark Wright—ET Program Coordinator (502) 213-7235
Mark.Wright@kctcs.edu.

EDUCATION PAYS

Revised 2/18/2009