General Guidelines: One and only one course from outside the Colleges of Engineering, Math, or Physics may be approved for use as a technical elective and only if the course technical content is deemed sufficient and the student has prior approval.

One course may be 200 level (with special permission) and a “combination” of successfully completed courses as documented on a community college (or technical school) transcript “may” be substituted (via department head approval) as one and only one technical elective credit. No course with a G (general education) or V (Viewing a Wider World) number suffix will be accepted as a technical elective.

Note – judicious use of technical electives may be used to fulfill requirements for a “concentration” or for a Minor.

Manufacturing
ET 302/IE 311 Manufacturing Data Analysis
ET 305 Introduction to Product Design
ET 317 Advanced 3-D Modeling and Design
ET 415 Manufacturing Management and Productivity
ET 480 Innovation and Product Development
ET 482 Advanced Manufacturing

Digital Applications
ET 282 Digital Electronics
ET 362 Software Technology II
ET 344 Microcomputer Systems
ET 398 Digital Systems
ET 444 Hardware and Software Senior Design

Information Technology (for non-IET majors)
ET/ICT 339 Introduction to Digital Forensics and Incident Response
ET 458 Database Technology for engineering
ET 477 Computer Networking II
ET 462 Web Technologies and Multimedia
ET 463 Computer System Administration with Python

Renewable Energy Technologies
ET 306/L Fundamental and Applied Thermodynamics and separate lab
ET 308/L Fluid Technology and separate lab
ET 365 Building Utilities
ET 381 Renewable Energy Technologies
ET 382 Solar Energy Technologies
ET 384 Wind and Water Energy Technologies
ET 386 Sustainable Construction and Green Building Design
ET 396 Heat Transfer and Applications
ET 401 Heating and Air Conditioning Systems
ET 456 Applied Power
EE 332 Introduction to Electric Power Engineering
CHE 466 Fuel Cell and Hydrogen Technology

**Surveying Engineering**
SUR 328 Principles and Practices of Construction Surveying
SUR 361 Introduction to Geodesy
SUR 330 Computer Applications of Surveying

**Security Technology**
ET 457 Introduction to Information Security Technology
ET 458 Database Technology for Engineering
ET/ICT 339 Introduction to Digital Forensics and Incident Response

**Misc.**
ET 418 Applied Hydraulics
ET 472 Intelligent Transportation Systems

Math 291, 292, and Math above 300
Physics above 300

**Project or Internship** may be used with *prior* approval only.
ET 420 Senior Internship (requires prior approval as a tech. elective)

The following are **ONLY pre-approved technical electives for the IET program**
BCIS 450 Systems Design, Development, and Implementation or
BCIS 475
BCIS 482 Management of Information Security
CJ 321 Criminal Investigation and Intelligence
CJ 322 Organized Crime
CJ 412 Introduction to Security Technology and Loss Prevention
CJ 425 Issues in Ethics, Law and Criminal Justice
CS 310 Advanced Computer and Internet Literacy
CS 478 Computer Security
PHYS 304 Forensic Physics
ICT 450 Ethical Hacking and Penetration Testing
ICT 320 Introduction to IP Protocols