

ECET/MET/IET

Approved Technical Electives

Last modified on: Friday, November 09, 2018

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)
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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