EET 1003 Introduction to Microcomputer Programming
Prerequisites: Consent of instructor.
Description: Programming a microcomputer using a spreadsheet and in BASIC. Application of algorithms to solve defined problems and an introduction to the numerical limitations of small machines. Previously offered as ECT 1003.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 1101 Fundamentals of DC Circuits Lab
Prerequisites: Consent of instructor.
Description: Elementary principles of dc electricity laboratory for Non-EET students who have taken a dc circuits course without a lab component. This is the same curriculum and lab experience that students would experience taking EET 1114. May not be used for degree credit with EET 1134 or EET 1104.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Engineering Technology

EET 1104 Fundamentals of Electricity
Prerequisites: Concurrent enrollment in MATH 2123 or MATH 2144 or Consent of Instructor.
Description: Elementary principles of electricity covering basic electric units. Ohm’s law, Kirchoff’s law, circuit solutions, network solutions, magnetism, inductance and capacitance. Previously offered as EET 1104. May not be used for degree credit with EET 1134 or EET 1101.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 1134 Fundamentals of DC Circuits
Prerequisites: Concurrent enrollment in MATH 2123 or MATH 2144 or consent of instructor.
Description: Elementary principles of dc electricity laboratory for Non-EET students covering basic electrical units, Ohm’s Law, Kirchoff’s Law, circuit solutions, network solutions, magnetism, inductance and capacitance. May be substituted for EET 1104 and grade of “B” or better and consent of the department. May not be used for degree credit with EET 1101.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 1201 Fundamentals of AC Circuits Lab
Prerequisites: “C” or better in EET 1104 OR “C” or better in EET 1134 or consent of instructor.
Description: Elementary principles of ac electricity laboratory for Non-EET students who have taken an ac circuits course without a lab component. This is the same curriculum and lab experience that students would experience taking EET 1214. May not be used for degree credit with EET 1214 or EET 1244.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Engineering Technology

EET 1214 Fundamentals of AC Circuits
Prerequisites: (“C” or better in EET 1104 OR “C” or better in EET 1134) AND (“C” or better in MATH 2123 OR “C” or better in MATH 2144) or consent of instructor.
Description: Elementary principles of ac electricity laboratory for Non-EET students covering basic electrical units, The use of network theorems and phasors, coupled circuits, resonance, filters and power will be studied. May be substituted for EET 1244 with grade of “B” or better and consent of the department. May not be used for degree credit with EET 1201.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 1244 Circuit Analysis I
Prerequisites: (“C” or better in EET 1104 OR “B” or better in EET 1134) AND (“C” or better in MATH 2123 OR “C” or better in MATH 2144) OR consent of instructor.
Description: Analysis of AC electric circuits. The use of network theorems and phasors, coupled circuits, resonance, filters, and power. Course previously offered as ECT 1244. May not be used for degree credit with EET 1214 or EET 1201.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 2303 Technical Programming
Prerequisites: Consent of instructor.
Description: Introduction to machine programming using industrial standard languages, emphasis on problems from science and technology. Course previously offered as ECT 2303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology
EET 2544 Pulse and Digital Techniques  
**Prerequisites:** "C" or better in EET 1104 or "B" or better in EET 1134 OR "C" or better in ENSC 2613 and ENSC 2411A OR equivalent. Prerequisites may be taken concurrently.  
**Description:** Electronic circuits used in digital control and computation. Pulse generation, Boolean algebra and logic circuits. Course previously offered as ECT 2544.  
**Credit hours:** 4  
**Contact hours:** Lecture: 3 Lab: 2 Contact: 5  
**Levels:** Undergraduate  
**Schedule types:** Lab, Lecture, Combined lecture and lab  
**Department/School:** Engineering Technology  

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<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Description</th>
<th>Credit hours</th>
<th>Contact hours: Lecture</th>
<th>Contact hours: Lab</th>
<th>Contact hours: Contact</th>
<th>Levels</th>
<th>Schedule types</th>
<th>Department/School</th>
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<tbody>
<tr>
<td>EET 2633 Solid State Devices and Circuits I</td>
<td>(&quot;C&quot; or better in EET 1244 OR &quot;B&quot; or better in EET 1214 OR (&quot;C&quot; or better in both ENSC 2613 AND ENSC 2411)) AND (&quot;C&quot; or better in MATH 2123 OR MATH 2144).</td>
<td>Diodes, Circuit protection, wave shaping, rectifiers, load switching, and power supplies. Transistors and Op amps and their applications. Course previously offered as ECT 2635 and EET 2635.</td>
<td>3</td>
<td>Lecture: 2 Lab: 2 Contact: 4</td>
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<td>Undergraduate</td>
<td>Lab, Lecture, Combined lecture and lab</td>
<td>Engineering Technology</td>
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<tr>
<td>EET 3005 Electronics Analysis I</td>
<td>EET 1244 and EET 2544 and EET 2635.</td>
<td>Extensive use of mathematics in analyzing discrete, linear device, linear systems and non-linear circuits. Development of the analytic skills necessary for upper-division work. The use of basic calculus in circuit analysis. Must obtain a &quot;C&quot; or better before admission to other 3000 level EET courses. Intended for transfer and returning students. Enrollment by adviser consent.</td>
<td>5</td>
<td>Lecture: 5 Contact: 5</td>
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<td>Undergraduate</td>
<td>Lecture</td>
<td>Engineering Technology</td>
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<tr>
<td>EET 3104 Elements of Electricity and Electronics</td>
<td>MATH 1513.</td>
<td>Essentials of electricity, controls, and electronics for non-majors. No credit for EET majors. Course previously offered as ECT 3104.</td>
<td>4</td>
<td>Lecture: 3 Lab: 3 Contact: 6</td>
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<td>Undergraduate</td>
<td>Lab, Lecture, Combined lecture and lab</td>
<td>Engineering Technology</td>
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<td>EET 3113 Circuit Analysis II</td>
<td>(EET 1244 with a grade of &quot;C&quot; or better OR EET 1214 with a grade of &quot;B&quot; or better AND EET 2635 OR EET 2633 with a grade of &quot;C&quot; or better AND MATH 2123 with a grade of &quot;C&quot; or better OR MATH 2153 with a grade of &quot;C&quot; or better) OR (ENSC 2613 and ENSC 2411 with &quot;C&quot; or better).</td>
<td>Application of elementary switching functions and Laplace transforms to electronic circuit analysis. Circuit analysis in the S-plane, transfer functions and the application of circuit analysis software. Course previously offered as ECT 3113.</td>
<td>3</td>
<td>Lecture: 3 Contact: 3</td>
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<td>Undergraduate</td>
<td>Lecture</td>
<td>Engineering Technology</td>
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<tr>
<td>EET 3123 Project Design and Fabrication</td>
<td>(&quot;C&quot; or better in EET 2544 AND (&quot;C&quot; or better in EET 2635 OR &quot;C&quot; or better in EET 2633)) OR (&quot;C&quot; or better in ENSC 2613 and ENSC 2411 AND (a &quot;C&quot; or better in EET 2635 OR EET 2633)) OR Instructor Approval.</td>
<td>Methods of designing, analyzing and fabricating electronic circuits using standard software packages. Heat transfer characteristics and problem solutions are included. Course previously offered as ECT 3124 and EET 3124.</td>
<td>3</td>
<td>Lecture: 3 Contact: 3</td>
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<td>Undergraduate</td>
<td>Lecture</td>
<td>Engineering Technology</td>
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<td>EET 3253 Microprocessors I</td>
<td>EET 2544.</td>
<td>An introduction to microcontrollers and their uses in embedded applications. Topics include system architecture, assembly language, structured programming, memory systems, user I/O, timers, peripherals, etc. Course previously offered as ECT 3254 and EET 3254.</td>
<td>3</td>
<td>Lecture: 3 Contact: 3</td>
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<td>Undergraduate</td>
<td>Lecture</td>
<td>Engineering Technology</td>
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<tr>
<td>EET 3263 Microprocessors II</td>
<td>(EET 2303 with a grade of &quot;C&quot; or better and ((EET 3254 or EET 3253) with a grade of &quot;C&quot; or better).</td>
<td>A continuation of EET 3253. Programming and interfacing of microcontrollers in embedded application, including interrupts, EEPROM, serial programming, interfacing, power management, algorithms, stepper motor control. Course previously offered as ECT 3264 and EET 3264.</td>
<td>3</td>
<td>Lecture: 3 Contact: 3</td>
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<td>Engineering Technology</td>
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<td>Course Code</td>
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<td>Schedule types</td>
<td>Levels</td>
<td>Contact hours</td>
<td>Credit hours</td>
<td>Description</td>
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<td>EET 3303</td>
<td>Python Programming for Technology and Engineering</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Prerequisites: MATH 2123 or MATH 2144 plus previous programming experience in any language. Description: The Python programming language including syntax, collections, modules, object-oriented programming, functions, and graphical user interfaces with emphasis on applications in technology and engineering. Credit hours: 3 Contact hours: Lecture: 3 Contact: 3 Levels: Undergraduate Schedule types: Lecture Department/School: Engineering Technology</td>
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<td>EET 3354</td>
<td>Communication and Signal Processing</td>
<td>Engineering Technology</td>
<td>Lab, Lecture, Combined lecture and lab</td>
<td>Undergraduate</td>
<td>2</td>
<td>2</td>
<td>Lecture: 2 Lab: 2 Contact: 4 Credit hours: 2 Contact hours: Lecture: 3 Lab: 3 Contact: 6 Levels: Undergraduate Schedule types: Lab, Lecture, Combined lecture and lab Department/School: Engineering Technology</td>
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<td>EET 3363</td>
<td>Data Acquisition</td>
<td>Engineering Technology</td>
<td>Lab, Lecture, Combined lecture and lab</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Contact hours: Lecture: 2 Lab: 2 Contact: 4 Credit hours: 3 Contact hours: Lecture: 3 Lab: 3 Contact: 6 Levels: Undergraduate Schedule types: Lab, Lecture, Combined lecture and lab Department/School: Engineering Technology</td>
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<td>EET 3423</td>
<td>Applied Analysis for Technology</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Credit hours: 3 Contact hours: Lecture: 3 Lab: 3 Contact: 3 Levels: Undergraduate Schedule types: Lecture Department/School: Engineering Technology</td>
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<td>EET 3523</td>
<td>Advanced Logic Circuits</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
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<td>Credit hours: 3 Contact hours: Lecture: 3 Lab: 3 Contact: 3 Levels: Undergraduate Schedule types: Lecture Department/School: Engineering Technology</td>
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<td>EET 3533</td>
<td>Introduction to Telecommunications</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Prerequisites: &quot;C&quot; or better in EET 2544 AND &quot;C&quot; or better in EET 2635 OR EET 2633. Description: Introductory course to the field of telecommunications. Study of the various technologies and how the application of these technologies work together to form functioning systems and networks. Credit hours: 3 Contact hours: Lecture: 2 Lab: 2 Contact: 4 Levels: Undergraduate Schedule types: Lab, Lecture, Combined lecture and lab Department/School: Engineering Technology</td>
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<td>EET 3713</td>
<td>Introduction to Electric Power Technology I</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Prerequisites: &quot;C&quot; or better in EET 1244 OR &quot;B&quot; or better in EET 1214 AND (&quot;C&quot; or better in MATH 2133) OR (&quot;C&quot; or better in ENSC 2613 AND ENSC 2411). Description: Physical principles of electromagnetics and electromechanical energy conversion devices and their application to conventional transformers and rotating machines. Credit hours: 3 Contact hours: Lecture: 3 Contact: 3 Levels: Undergraduate Schedule types: Lecture Department/School: Engineering Technology</td>
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<td>EET 3723</td>
<td>Introduction to Electric Power Technology II</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Contact hours: Lecture: 2 Lab: 2 Contact: 4 Credit hours: 3 Contact hours: Lecture: 3 Lab: 3 Contact: 6 Levels: Undergraduate Schedule types: Lab, Lecture, Combined lecture and lab Department/School: Engineering Technology</td>
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<td>EET 3803</td>
<td>Fundamentals of Mechatronics</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>3</td>
<td>3</td>
<td>Credit hours: 3 Contact hours: Lecture: 2 Lab: 2 Contact: 4 Levels: Undergraduate Schedule types: Lab, Lecture, Combined lecture and lab Department/School: Engineering Technology</td>
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<td>EET 4050</td>
<td>Advanced Electronic Problems</td>
<td>Engineering Technology</td>
<td>Lecture</td>
<td>Undergraduate</td>
<td>1-4</td>
<td>1-4</td>
<td>Prerequisites: Junior standing and consent of head of department. Description: Junior standing and consent of head of department. Special problems in the electronic area. Course previously offered as ECT 4050. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours. Credit hours: 1-4 Contact hours: Contact: 1-4 Other: 1-4 Levels: Undergraduate Schedule types: Independent Study Department/School: Engineering Technology</td>
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EET 4314 Elements of Control
Prerequisites: "C" or better in EET 3113 AND "C" or better in EET 3363 AND "C" or better in EET 3423.
Description: Principles of analog and digital control, with emphasis on the analysis of feedback control systems in their various conceptual configurations. Application of feedback control theory to the analysis and design of present day circuits and systems. Use of circuit analysis software. Course previously offered as ECT 4314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 4323 Applied Artificial Intelligence
Prerequisites: "C" or better in EET 3303 AND "C" or better in EET 4813 AND "C" or better in STAT 4033 OR "C" or better in STAT 4033.
Description: The course will follow a project based learning approach to introduce students with the theoretical and implementation of artificial intelligence algorithms. Topics include supervised learning, unsupervised learning, and deep reinforcement learning.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 4363 Digital Signal Processing
Prerequisites: "C" or better in EET 3354 AND "C" or better in EET 3363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

EET 4514 Advanced Telecommunication Topics
Prerequisites: "C" or better in EET 3533.
Description: Study of data transmission techniques between digital electronic devices.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 4654 Microwave Techniques
Prerequisites: "C" or better in EET 2635 OR EET 2633 AND "C" or better in EET 3354.
Description: Study of topics pertaining to VHF behavior of circuits and systems. Transmission line theory: wave equations, SWR, impedance calculations and transformations, and lossy lines. Extensive use of the Smith chart to solve transmission line problems. Introduction to Maxwell's equations, with emphasis on steady state. Wave propagation in rectangular waveguides. Introduction to antennas. Modeling of transistors at VHF, UHF, and microwave frequencies. Design and analysis of transistor amplifiers at VHF using y and s parameters. Designing LC impedance matching networks. Previously offered as ECT 4654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 4803 Mechatronic System Design
Prerequisites: Grade of "C" or better in EET 3423 and EET 3803 (can be concurrent enrollment in EET 3423 with instructor approval).
Description: Modelling of mechanical, electrical, and hydraulic components. Feedback control systems, electro-hydraulic drives, electrical drives, and microcontroller programming. Previously offered as GENT 4503. Same course as MET 4803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 4833 Industrial Project Design I
Prerequisites: ("C" or better in EET 3123 or EET 3124 AND ("C" or better in EET 3363 OR concurrently enrolled in EET 3363 with instructor approval)) OR ("C" or better in EET 3363 AND 10 credit hours of upper-division EET courses).
Description: Course mirrors the design process in industry. Topics covered are design team formation, identify objectives, define design specifications, write specifications, create a state of work and Gantt chart, create a project budget, perform a preliminary design review, design prototype. Previously offered as EET 4832 and ECT 4832.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology

EET 4843 Industrial Project Design II
Prerequisites: "C" or better in EET 4833 OR a "C" or better in ENGR 4403 OR ENGR 4404.
Description: Student continues in the project steps of Change Board Review, Critical Design Review, developing & writing test specs., product fabrication and testing, formal technical report submission and outcomes assessment exam. May be substituted with ENGR 4403 OR ENGR 4404.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology
EET 4903 Mechatronics of Autonomous Systems
Prerequisites: "C" or better in EET 3803 OR "C" or better in MET 3803.
Description: The course will follow a project based learning approach to introduce students with the mechatronics of autonomous systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Engineering Technology