

**RED 495 Secondary Content Area Literacy (3).** Integration of content area learning with literacy in the 6-12 classroom. Strategies to support learning in the content areas presented. Literacy is defined in close proximity to various content areas (e.g., art literacy, scientific literacy). (F, S)

**RED 496 Elementary Content Area Literacy (3).** Integration of content area learning with literacy in the K-8 elementary classroom. Strategies to support learning in the content areas presented. Literacy is defined in close proximity to various content areas (e.g., art literacy, scientific literacy). (Su)

### Education, Secondary (SED)

**SED 293 Topics in Secondary Education (1-3).** As announced. (May be repeated for a maximum of 6 hours in SED 293 and 493.)

**SED 380 Secondary School Teaching/Learning (3).** Responsibilities of secondary school classroom teachers; establishing a classroom climate; conducting instruction effectively with modifications for diverse learners; student assessment, grading; classroom management. Eight-hour practicum required. Concurrent enrollment: EDF 301 and BLED 350 permitted; recommended concurrent enrollment in SED 410. Prerequisites: EDF 222/222L; admission to the Teacher Education Program. (F, S)

**SED 410 Issues in Secondary Teaching (3).** Issues and problems confronting secondary teachers; roles and responsibilities of secondary teachers in working with curriculum, instruction, students, colleagues and community members to enhance learning. Prerequisites: EDF 222/222L; admission to Teacher Education Program; SPED 338 for dual licensure. Concurrent enrollment: SED 380 recommended. (F, S)

**SED 450 Seminar in Student Teaching (2).** Explores the dynamics of the student teaching experience in partnership with the school community. Concurrent enrollment: SED 460. Prerequisites: completion of EDF 222/222L; SPED 305; EDF 301; BLED 350; SED 380, 410 with a grade of "C" or better; completion of requirements for the major. (F, S)

**SED 460 Secondary Student Teaching (10).** Observation and teaching under supervision in secondary school; conferences on problems of student teaching; placement in public school classroom; instructional planning and delivery; evaluation of learners; communicating with parents. Prerequisites: completion of EDF 222; SPED 305; EDF 301; BLED 350; SED 380 (or SPED 338 for dual licensure), 410 with a grade of "C" or better; completion of requirements for the major. (F, S)

**SED 468 Workshop in Secondary Education (1-3).** As announced. (May be repeated for a maximum of 6 hours in all education workshops.)

**SED 491 Directed Study (1-3).** Independent study. (May be repeated for a maximum of 4 hours.) Prerequisite: consent of instructor.

**SED 493 Topics in Secondary Education (1-3).** As announced (May be repeated for a maximum of 6 hours in SED 293 and 493.)

### Education, Special (SPED)

**SPED 293 Topics in Special Education (1-3).** As announced. (May be repeated for a maximum of 6 hours in SPED 293 and 493.)

**SPED 300 Introduction to Special Education (3).** Nature, needs, laws, educational concerns, collaborative models of teaching, modifications and uses of technology to meet needs of exceptional students in different categories. This course is designed specifically for SPED majors and licensure students. Concurrent enrollment: EDF 222/222L recommended. (F, S)

**SPED 305 Students with Disabilities in the Regular Classroom (3).** Strategies for adapting instruction and utilizing technologies to meet the learning needs of exceptional students in regular classrooms. This course will not count as credit toward Special Ed. Degree or Licensure. Concurrent enrollment: EDF 222/222L recommended. (F, S)

**SPED 330 Assessment in Special Education (3).** Techniques for diagnostic and prescriptive teaching and formal; informal and ecological assessment with applications of technologies for exceptional individuals. Concurrent enrollment: SPED 338 highly recommended. Prerequisites: EDF 222/222L; SPED 300 with a grade of "B" or better; admission to Teacher Education Program. (S)

**SPED 338 Behavior Management: Exceptional Individuals (3).** Major concepts and techniques of effective classroom and behavior management utilizing technologies for applied behavioral analysis. Ten hours field work required. Concurrent enrollment: SPED 330 highly recommended. Prerequisites: EDF 222/222L; SPED 300 with a grade of "B" or better; admission to Teacher Education Program. (S)

**SPED 411 Literacy Methods and Materials (3).** Classroom methods, curriculum, procedures and materials to promote exceptional individuals' literacy skills. Modification of regular education curriculum, assistive technology; inclusion, functional academics and vocational/life skills. Concurrent enrollment: SPED 412, 413. Prerequisites: SPED 300, 330, 338; admission to Teacher Education Program. (F)

**SPED 412 Content Methods and Materials (3).** Classroom methods, curriculum, procedures, and materials used in education of exceptional individuals in mathematics and content areas, including the arts. Modifications of regular education curriculum, assistive technology, and inclusion. Concurrent enrollment: SPED 411, 413. Prerequisites: SPED 300, 330, 338; admission to Teacher Education Program. (F)

**SPED 413 Practicum: Special Education Methods (3).** Sixty hours of field work which includes application of instructional technologies with exceptional individuals. Course requirements may be fulfilled at the place of employment with instructor's approval. Concurrent enrollment: SPED 411, 412. Prerequisites: SPED 300, 330, 338; admission to Teacher Education Program. (F)

**SPED 414 Vocational/Life Skills Transition (3).** Curricula, instructional techniques and materials related to prevocational, vocational and life skills programs for students with disabilities. Prerequisites: SPED 300, 330, 338; admission to Teacher Education Program.

**SPED 445 Student Teaching: Special Education (10).** Observation and teaching under supervision in special education; conferences on problems of student teaching; placement in public school classroom; instructional planning and delivery; evaluation of learners; communicating with parents. Concurrent enrollment: SPED 447. Prerequisite: successful completion of all course requirements for degree or licensure. (F, S)

**SPED 447 Seminar in Special Education (2).** Explores the dynamics of the student teaching experience in partnership with the school community. Concurrent enrollment: SPED 445. Prerequisite: successful completion of all course requirements for degree or licensure. (F, S)

**SPED 468 Workshop in Special Education (1–3).** As announced. (May be repeated for a maximum of 3 hours in all education workshops.)

**SPED 491 Directed Study (1–3).** Independent study. (May be repeated for a maximum of 3 hours.) Prerequisite: consent of instructor.

**SPED 493 Topics in Special Education (1–3).** As announced. (May be repeated for a maximum of 6 hours.)

## Electronics Engineering Technology (EET)

**Note:** Some math courses require prerequisites that can be fulfilled with satisfactory ACT/SAT scores. These minimum scores may be satisfied in the following ways:

For courses with MATH 107 as prerequisite, satisfactory scores are defined as

1. ACT math of 24 or higher **OR**
2. ACT math of 22 or 23 **AND** an algebra/geometry subscore of 9 **OR**
3. SAT math of 530 or higher

**EET/ENGR 101 Introduction to Engineering (3).** An introduction to fundamentals of engineering and its relation to science and mathematics. Topics include: engineering discipline, engineering methods using statistics, symbolic algebra, curve fitting and MATLAB software in engineering. (S)

**EET 110 Basic Circuit Analysis (3).** This course consists of materials for circuit analysis from a direct current (DC) standpoint. Topics include voltage, current, resistors, power and energy, plus analysis of series and parallel circuits. Prerequisite: satisfactory ACT/SAT score or MATH 107 (may be taken concurrently). Concurrent enrollment: EET 110L. (F)

**EET 110L Basic Circuit Analysis Laboratory (NC).** Concurrent enrollment: EET 110. (F)

**EET/ENGR 111 Engineering Graphics (3).** An introduction to engineering graphics using computer-aided design/drafting. Topics include geometric construction, orthographic projection, principle and auxiliary views, and related materials necessary to produce detailed drawings. Concurrent enrollment: EET/ENGR 111L. (F)

**EET/ENGR 111L Engineering Graphics Laboratory (NC).** Concurrent enrollment: EET/ENGR 111. (F)

**EET 210 Intermediate Circuit Analysis (3).** Topics include developing loop equations for series and parallel alternating circuits. Analog circuit simulation program familiarization. Investigation of impedance, frequency response, resonance, filter networks, transformers and complex waveforms. Prerequisites: EET 110/110L, MATH 120 or 119 (may be taken concurrently). Concurrent enrollment: EET 210L. (S)

**EET 210L Intermediate Circuit Analysis Laboratory (NC).** Concurrent enrollment: EET 210. (S)

**EET 219 Computer Aided Drafting (3).** Drawings of machines and machine-elements including threads, fasteners, springs and gears. The study of terminology, concepts, hardware/software and techniques necessary to understand, assemble, maintain and use a CAD system. Prerequisites: EET 111/111L. Concurrent enrollment: EET 219L. (S)

**EET 219L Computer Aided Drafting Laboratory (NC).** Concurrent enrollment: EET 219. (S)

**EET 237 Semiconductor Devices (3).** This course consists of materials for solid state devices such as diodes and transistors, small signal and elementary amplifier analysis. Prerequisites: EET 110/110L, MATH 119 (may be taken concurrently). Concurrent enrollment: EET 237L. (S)

**EET 237L Semiconductor Devices Laboratory (NC).** Concurrent enrollment: EET 237. (S)

**EET 241 Logic Circuits (3).** Pulse and logic circuits common to computers, data systems, analytical tools and their applications. Digital circuit analysis using computer simulations. Prerequisite: satisfactory ACT/SAT score or MATH 107 (may be taken concurrently). Concurrent enrollment: EET 241L. (F)

**EET 241L Logic Circuits Laboratory (NC).** Concurrent enrollment: EET 241. (F)

**EET 242 Sequential Circuits and Applications (3).** A continuation of Logic Circuits. The course will focus on sequential and finite state machines. Analysis of timing characteristics for flip-flops and latches are included. Prerequisites: EET 241/241L, MATH 119 (may be taken concurrently). Concurrent enrollment: EET 242L. (S)

**EET 242L Sequential Circuits and Applications Laboratory (NC).** Concurrent enrollment: EET 242. (S)

**EET 268 Workshop in Engineering Technology (1–3).** As announced. (May be repeated for a maximum of 6 hours.) (TBA)

**EET 280 Electric Machines and Sensors (3).** DC motors and generators, induction motors and generators, and various electrical and mechanical sensors are studied. Course emphasis is on the motor's principal of operation and application with PLC. Prerequisites: EET 210/210L, 237/237L. Concurrent enrollment: EET 280L. (F)

**EET 280L Electric Machines and Sensors Lab (NC).** Concurrent enrollment: EET 280. (F)

**EET 293 Topics in Engineering Technology (1–3).** As announced. (May be repeated for a maximum of 6 hours with consent of instructor or advisor.)

**EET 310 Linear Systems Analysis (3).** This course includes topics necessary for design and analysis of complex electronic circuits. Topics include: network analysis, analysis of continuous-time and discrete-time systems, sampling theorem, Laplace transform. Prerequisites: EET 210/210L; MATH 124. Concurrent enrollment: EET 310L. (Alt F)

**EET 310L Linear Systems Analysis Laboratory (NC).** Concurrent enrollment: EET 310. (F)

**EET 337 Operational Amplifiers (3).** A continuation of Semiconductor Devices. Operational amplifiers, troubleshooting and low-and-high frequency amplifiers are studied. Prerequisites: EET 237/237L. Concurrent enrollment: EET 337L. (F)

**EET 337L Operational Amplifiers Laboratory (NC).** Concurrent enrollment: EET 337. (F)

**EET/CS 340 Microprocessors and Assembly Programming (3).** Programming and use of microcomputer hardware to perform basic and advanced control functions. Topics include architecture and instruction set of microprocessors, timing diagrams, address decoding schemes and interrupt handling. Prerequisites: EET 241/241L or CS 123. (F)

**EET 357 Electronic Communications I (3).** Electronic circuits of modern electronic communications are studied. Topics include basic radio frequency transmitter and receiving systems, antennas and audio signal processing. Prerequisites: EET 337/337L, MATH 120. Concurrent enrollment: EET 357L. (Alt F)