

Electronics Engineering Tech (EET)

EET 101. AC/DC Electronics I. 3 Credits.

This is a lecture/lab course that provides the foundation for major and minor courses in the Engineering Technology: Electronics Engineering Technology program. Topics include basic electrical and electronic concepts, circuit testing, troubleshooting, and the use of test equipment. Course Fee: \$10.00.

EET 103. AC/DC Electronics II. 3 Credits.

This lecture/lab course provides an introduction to solid state devices. Topics covered include PN diode characteristics, rectifier circuits, bipolar transistors, field-effect transistors, and amplifier circuits. Prerequisite: EET 101 or equivalent. Course Fee: \$10.00.

EET 110. Electronics Survey I. 3 Credits.

An introduction to basic concepts and terminology of electronics for the non-electronics major. Topics start with electricity and continue through every day commercial and home applications. Course Fee: \$10.00.

EET 192. Independent Study. 1-12 Credits.**EET 199. Independent Study. 1-12 Credits.****EET 204. Electronic Fundamentals II. 4 Credits.**

A study of field-effect transistors and circuits, thyristors and circuits, frequency effects on amplifier circuits, and the fundamentals of the operational amplifier and applications circuits. Course Fee: \$6.00.

EET 205. Communications Fundamentals. 4 Credits.

Study of electronic telecommunications systems including radio communications, amplitude modulation and sideband systems and application circuits, frequency and phase modulation systems and circuits. Prerequisites: EET 101 and EET 103. Course Fee: \$9.00.

EET 206. Electronic Equip Design/Fab. 4 Credits.

A hands-on course focusing on the construction of electronics equipment. The course will include the principles of circuit and chassis fabrication of packaging for electronic equipment, the techniques of layout, construction, finishing, assembly, wiring and harnessing, and the proper use of tools and hardware. The student will be introduced to several different types of shop tools and hand tools. Printed circuit board layout and design using computer aided design software will be included. A number of direct and photographic circuit board fabrication techniques will be presented. A project is used by each student to develop skills for each process. Prerequisite: DRFT 156. Course Fee: \$25.00.

EET 210. Embedded Controller I. 3 Credits.

This course is an introduction to the microcontroller using the BASIC STAMP and various PIC and other controller products to develop a small digital system. The course includes programming, interfacing, power, and packaging of a stand-alone digital device. Prerequisite: CSCI 110.

EET 220. Electrical Power & Distribution. 3 Credits.

This course covers an introduction to the generation of electrical power and moving that power through a local transmission system to a substation where a customer will purchase the generated power. Safely working with components of a high voltage transmission system will also be covered.

EET 230. Electrical Power & Distribution II. 3 Credits.

This course is a continuation of the Electrical Power and Distribution I course. It covers the generation of electrical power and moving that power through a local transmission system to a substation where a customer will purchase the generated power.

EET 240. Electronic Drive Systems. 3 Credits.

This is an advanced course in electronic drive systems used in industrial applications. Electronic control of Direct-Current and Alternating Current motors, transmission and solid-state controllers, and electronic control of power generation equipment will be discussed.

EET 298. Cooperative Education. 1-12 Credits.

A planned and supervised work-learning experience in industry, business, government, or community service agencies related to the University program of study. Prerequisites: two semesters of attendance at Montana State University-Northern, approval of advisor, Dean of the College of Technical Sciences, and cooperative education coordinator. Pass/Fail only.

EET 299. Independent Study. 1-12 Credits.**EET 391. Special Topics. 1-12 Credits.****EET 392. Independent Study. 1-12 Credits.****EET 490. Special Topics. 1-12 Credits.****EET 492. Independent Study. 1-12 Credits.****EET 498. Cooperative Education. 1-12 Credits.**

A planned and supervised work-learning experience extending the student's learning experience in agricultural business, agricultural production, or government agencies related to agriculture. Prerequisites: Junior standing and approval of minor advisor, Dean of the College of Technical Sciences, and cooperative education coordinator. Pass/Fail only.

EET 590. Special Topics. 1-12 Credits.