

ENGINEERING TECHNOLOGY

Courses

SET 100. Introduction to Engineering Technology I. 0 Hours

First semester of introduction to Engineering Technology seminar for all engineering technology majors. Introduction to the University of Dayton, the School of Engineering, the Department of Engineering Technology, engineering technology programs and careers. Emphasizes professional ethics, critical thinking and communications, and team dynamics. Academic policies, academic planning, registration procedures, counseling and career placement services.

SET 101. Introduction to Engineering Technology II. 0 Hours

Second semester of introduction to Engineering Technology seminar for all engineering technology majors. Introduction to the University of Dayton, the School of Engineering, the Department of Engineering Technology, engineering technology programs and careers. Emphasizes professional ethics, critical thinking and communications, and team dynamics. Academic policies, academic planning, registration procedures, counseling and career placement services.

SET 102. Engineering Technology Transfer Seminar. 0 Hours

A seminar for Engineering Technology majors who transferred from another academic institution. Introduction to the University of Dayton, the School of Engineering, the Department of Engineering Technology, Engineering Technology programs, and careers. Emphasizes professional ethics, critical thinking and communication, and team dynamics. Academic policies, academic planning, registration procedures, counseling, and career placement services.

SET 150. Engineering Analysis I. 2 Hours

Overview of the mathematics topics heavily used in sophomore-level engineering technology courses. Topics include algebraic analysis, trigonometry, vectors and complex number, sinusoids and harmonic signals, systems of equations and matrices, differentiation, and integration. All topics are motivated by engineering applications.

SET 153L. Technical Computation Laboratory. 1 Hour

Introduction to applications and use of computers for engineers with concentration on spreadsheets, electronic communications, and object oriented programming using Visual Basic.

SET 198. Research & Innovation Laboratory. 1-6 Hours

Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered. Prerequisite(s): Permission of department chairperson.

SET 200. Professional Development for Sophomores. 0 Hours

Presentations on contemporary and professional engineering subjects by students, faculty, and engineers in active practice. The seminar addresses topics in key areas that complement traditional courses and prepare distinctive graduates, ready for life and work. Registration required for all Engineering Technology sophomore students.

SET 250. Engineering Analysis II. 2 Hours

Integration of mathematical skills learned in calculus and statistics with engineering applications and analyses. Advanced engineering analysis methods will be introduced. Topics to be covered will include: engineering applications and solution methods in the areas of linear algebra, numerical methods, Fourier transforms, Laplace transforms, differential equations, and statistics. Engineering math tools will be utilized. Prerequisites: MTH 169 and MTH 207. Corequisites: SET 153L.

SET 298. Research & Innovation Laboratory. 1-6 Hours

Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered. Prerequisite(s): Permission of department chairperson.

SET 300. Professional Development for Juniors. 0 Hours

Presentations on contemporary and professional engineering subjects by students, faculty, and engineers in active practice. The seminar addresses topics in key areas that complement traditional courses and prepare distinctive graduates, ready for life and work. Registration required for all Engineering Technology sophomore students. Prerequisites: EGR 200 or COP 200 or SET 200.

SET 398. Research & Innovation Laboratory. 1-6 Hours

Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered. Prerequisite(s): Permission of department chairperson.

SET 400. Professional Development for Seniors. 1 Hour

Career planning for engineering technology majors. The job search process, resume preparation, the job interview, professional development. Required of all engineering technology majors in the junior or senior year. Prerequisites: SET 300.

SET 498. Research & Innovation Laboratory. 1-6 Hours

Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered. Prerequisite(s): Permission of department chairperson.