

ENGINEERING GRAPHICS (EGR)

Course Descriptions

EGR 100. Engineering Drawing. 3 Credit Hours.

Engineering Drawing uses a combination of instruments and CAD systems for making drawings. The course includes use of instruments, lettering, geometrical constructions, technical sketching, principles of orthographic projection, pictorial drawing, descriptive geometry, sectional views and conventions, auxiliary views, and dimensioning.

Prerequisites: Reading Proficiency

EGR 133. Introduction to AutoCAD I. 2 Credit Hours.

Introduction to AutoCAD I covers the fundamentals of the AutoCAD drafting system. Students will learn how to create drawings, setup units, limits, layers, linetypes, and colors. Drawing procedures for typical geometric operations are covered. Special features operations including polylines, blocks, dimensioning, cross-hatching, and plotting are also covered.

Prerequisites: Reading Proficiency

EGR 141. Introduction to AutoCAD II. 2 Credit Hours.

Continuation of Introduction to AutoCAD I. DOS for AutoCAD, Blocks, attributes, symbol libraries, bill of material extraction, screen and tablet menus, digitizing drawings, slides and slide shows, introduction to LISP language.

Prerequisites: EGR 133 with a minimum grade of "C" and Reading Proficiency

EGR 147. Introduction to Engineering Design. 3 Credit Hours.

This course is an introduction to the elements of Engineering Design. Students will learn the history of design, design process, sketching and visualization, geometric relationships, and modeling. Elements of manufacturing production, marketing, analysis, and quality control will also be studied. Students will learn presentation techniques and develop a portfolio.

EGR 230. Introduction to Revit. 4 Credit Hours.

Introduction to Revit will provide instruction using Revit software for building information modeling (BIM) for architecture. Instruction will focus on how both graphic and non-graphic architectural information for a building is produced through the creation of a single project database represented in a 3D model.

(Credit is only allowed for either EGR 230 or ARC 124.)

Prerequisites: Reading Proficiency

EGR 258. CAD Portfolio Preparation & Review. 1 Credit Hour.

CAD Portfolio Preparation Review provides students the opportunity to create new projects or enhance CAD projects from other courses to industry entry-level quality. Students are expected to have a proficiency in CAD operation.

Prerequisites: Reading Proficiency