

COURSE DESCRIPTIONS BY COURSE DISCIPLINE PREFIX

EGR ENGINEERING

EGR-110 **Intro to Engineering Tech** **2 (1-2)** **Fall
Spring**

Prerequisites: None

Corequisites: None

This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals.(2005 SP)

EGR-115 **Intro to Technology** **3 (2-3)** **Fall**

Prerequisites: None

Corequisites: EGR-115A^L

This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator.(2005 SP)

EGR-115A **Intro to Technology Lab** **1 (0-3)** **Fall**

Prerequisites: None

Corequisites: EGR-115^S

This course provides a laboratory setting for EGR 111. Emphasis is placed on developing skills in dimensional analysis, measurement systems, engineering graphics, and calculator applications. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in EGR 115.(2005 SP)

EGR-120 **Eng and Design Graphics** **3 (2-2)** **Spring**

Prerequisites: None

Corequisites: None

This course introduces the graphical tools for engineering and design communications. Emphasis is placed upon selecting the appropriate methods and tools and conveying ideas using sketches, orthographic views and projections, and computer graphics applications. Upon completion, students should be able to communicate essential features of two-dimensional and three-dimensional objects using the proper tools and methods.(2013 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

EGR-125 Appl Software for Tech 2 (1-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces personal computer software and teaches students how to customize the software for technical applications. Emphasis is placed on the use of common office applications software programs such as spreadsheets, word processing, graphics, and internet access. Upon completion, students should be able to demonstrate competency in using applications software to solve technical problems and communicate the results in text and graphical formats.(2005 SP)

**EGR-150 Intro to Engineering 2 (1-2) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals.(2005 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Required Hours course for A.E.

EGR-220 Engineering Statics 3 (3-0) AND**Prerequisites:** PHY-251^S**Corequisites:** MAT-272^S

This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium.(1997 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective course for A.E.

EGR-251 Statics 3 (2-2) Summer**Prerequisites:** ARC-111^L, CEG-115^L or EGR-115^L**Corequisites:** MAT-121^L or MAT-171^L

This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.(2013 FA)