

## EGR—Engineering

### **EGR 170 Engineering Materials** 3-0-3

This course is a study of the properties, material behaviors, and applications of materials used in engineering structures and products.

### **EGR 190 Statics** 3-0-3

This course is a study of forces and the effect of forces acting on bodies in equilibrium without motion.

### **EGR 260 Engineering Statics** 3-0-3

**Prerequisites:** MAT 175 or MAT 110

**Corequisites:** MAT 111

(Transfer course) this course is an introduction to the principles of engineering mechanics as applied to forces and force systems. The techniques of vector mathematics are employed.

### **EGR 270 Intro to Engineering** 2-3-3

(Transfer course) This course covers the applications of computers in engineering practices, including the use of an appropriate operating system, programming in a high level language, spread sheets, and word processing applications.

### **EGR 275 Intro to Eng/Computer Graphics** 2-3-3

(Transfer course) this course is a study of basic graphical concepts needed for engineering applications.

### **EGR 282 Intro to Civil Engineering** 2-0-2

This course covers the engineering process from problem formulation to creative design through practical solutions of civil engineering problems.

### **EGR 285 Engineering Surveying I** 3-0-3

**Corequisites:** MAT 175, MAT 111, EGR 295

This course covers linear measurements, leveling, compass and transit/theodolite, Theory of Errors, areas, stadia, coordinate geometry, state plane coordinates, and standard map projections.

### **EGR 286 Engineering Survey II** 3-0-3

**Prerequisites:** EGR 285 and EGR 295

**Corequisites:** EGR 296

This course covers land surveying and boundary laws, public land surveys, topographic mapping, horizontal and vertical curves, lot calculations, and engineering astronomy.

### **EGR 288 Drainage Design** 2-3-3

**Prerequisites:** EGR 275 and MAT 175 and CET 218

This course covers a study of hydrology and drainage design specifically to the local municipality.

### **EGR 289 SCWE in Engineering** 0-12-3

**Prerequisites:** EGR 275 or ( EGR 285 and EGR 295 )

This course integrates engineering skills with an approved job environment related to the engineering industry.

### **EGR 295 Engineering Surveying Lab I** 0-3-1

**Corequisites:** EGR 285

This course covers horizontal control, including distance and angular measurements, traversing, and preparation of a plat. Vertical control includes the performance of a level loop.

### **EGR 296 Engineering Surveying Lab II** 0-3-1

**Corequisites:** EGR 286

This course covers locating buildings and other objects within a boundary survey, performing a topographic survey, preparing a topographic map, and staking out a horizontal curve.