

## EGR — Engineering

### **EGR 109 Engineering Project Management** 2-3-3

**Prerequisites:** MAT 111 and EET 231

This course is the study of integrated project management for the engineering technologist with emphasis on the methods and software used by engineers including task lists, Gantt charts, discussion of critical path, statistical resource management, scheduling, budgeting, and economic factors.

### **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:** EGR 270 and 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

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.