## EGS 100 Fundamentals of Engineering Design 3.0 UNITS

The course employs fundamentals of geometry and engineering design to acquaint students with various disciplines of engineering. The course will utilize an engineering graphics component throughout the semester (freehand and CAD). It will include two engineering modules (chemical and mechanical). In addition to freehand sketching and instrumental drawing, the students are also introduced to AUTOCAD. Credit will not be awarded for both EGS-100 (Fundamentals of Engineering Design) and EGS-101 (Engineering Graphics).

## EGS 101 Engineering Graphics 2.0 UNITS

The course is designed to familiarize students with technical drawing and design, orthographic projections, perspective, freehand sketching, instrumental drawing, tolerance, sectional views, descriptive geometry. Students are introduced to AUTOCAD mid-semester and perform some projects using this software. Credit will not be awarded for both EGS-100 (Fundamentals of Engineering Design) and EGS-101 (Engineering Graphics).

## EGS 230 Statics and Dynamics 4.0 UNITS

This course is an extension of engineering physics courses on mechanics. Topics covered include the equilibrium of particle and rigid body systems subject to concentrated and distributed forces, the motion of particles and rigid bodies, the relation of motion of particles to various force distributions and torques, work energy relations, impulse momentum relations, and conservation principles.