ENGINEERING (ENGR)

ENGR 1103. Principles of Engineering Analysis and Design. (3 Credits)
In this course, the field of engineering is introduced by an elementary presentation of the principles of the engineering sciences such as mechanics, thermodynamics and scientific computing (utilized in the analysis and design of engineering problems). Prerequisite(s): MATH 1113.

ENGR 1200. Engineering Computing. (3 Credits)
This course is designed to provide students with the basic concepts of structured programming with an emphasis on developing algorithms, pseudo code, flowchart and programming in a modern high level language. Different software tools will be used to introduce various engineering problem solving techniques.

ENGR 1203. Engineering Graphics. (3 Credits)
This course is an introduction to graphic communication and engineering design. It includes orthographic, sectional, and auxiliary views, sketching, drawing, projection theory, tolerances and computer-aided graphics. Course Prerequisite(s): READ 0099, ENGL 0989 or satisfactory English score to place into co-requisite remediation or higher.

ENGR 2001. Intro to ENGR Materials. (3 Credits)
Primary objective of this course is to introduce students to the study of engineering materials. Building on an understanding of atomic structure and chemical bonding from the knowledge acquired in General Chemistry, students should understand the chemical and size factors which determine the way in which atoms pack together in solid materials. They should then be able to relate this to the observed mechanical, electrical, thermal, magnetic and chemical properties of those materials. Students will be introduced to material selection and processing as part of engineering design.

ENGR 2025. Intro to Signal Processing. (4 Credits)
Introduction to signal processing for discrete-time and continuous time signals including topics on filtering, frequency response, Fourier transform, Z transform. The laboratory emphasizes computer based signal processing. Prerequisite(s): MATH 2111, PHYS 2100 or CSCI 2101.

ENGR 2201. Engineering Statics. (3 Credits)
In this course, the principles of statics (vector based) in two and three dimensions will be covered. Concept of force, moment equilibrium principles, truss, center of gravity and friction will be taught by solving realistic problems. This course is designed for Pre-Engineering majors. It will satisfy the requirement by Georgia Institute of Technology for the Regents Engineering Transfer Program and the dual degree program. Prerequisite(s): PHYS 2212K US and ENGR 1103 US.

ENGR 2413. Electric Circuit Analysis. (3 Credits)
In this course, the study and analysis of AC and DC electric circuits, circuit elements, steady state and transient analysis and applications will be covered. (This course is recommended for majors in Electrical Engineering). Course Prerequisite(s): ENGR 1103, PHYS 2212K and MATH 2213.