2820:100. Introduction to Engineering Technology. (2 Credits)
This introductory course stresses skills needed for academic success. Discussion of fields in engineering technology, job searches, calculators, and data measurement and analysis are included.

2820:105. Basic Chemistry. (3 Credits)
Prerequisites: 2010:052 with a grade of C or better, or math placement test. Elementary treatment of facts and principles of chemistry emphasizing biological application. Elements and compounds important in everyday life, biological processes and medicine. Introduction to laboratory techniques. Primarily for medical assistant, criminal justice and allied health students. Laboratory.

2820:110. Physical Science for Technicians. (3 Credits)
Elementary presentation of theory and facts of general chemistry and physics (excluding electricity). Includes atomic structure, chemical reactions, energy, electromagnetic radiation, sound and mechanics.

2820:111. Introductory Chemistry. (3 Credits)

2820:112. Introductory & Analytical Chemistry. (3 Credits)
Prerequisite: 2820:111 or permission. Chemical equilibria, ionization, radioactivity. Properties of selected metals and nonmetals. Introduction to organic chemistry. Basic concepts of qualitative analysis. Identifications of cations and anions. Laboratory.

2820:131. Software Applications for Technology. (1 Credit)
Prerequisite: 2030:151. Word processing, spreadsheets, databases, and internet applications in engineering technology. Computer basics also. Limited to students in Engineering & Science Technology Department programs. Laboratory.

2820:150. Manufacturing Physics. (4 Credits)
Prerequisite: Admission to the Manufacturing Engineering Technology program. Corequisite: 2030:154. Applications of physics to manufacturing including two dimensional motion, vectors, forces, statics, torque and simple electronic circuits. Laboratory.

2820:160. Technical Physics: Mechanics. (4 Credits)
Corequisite: 2030:154. Applications of mechanics which include one and two dimensional motion, vectors, forces, equilibrium, work, power, conservation of energy, rotational motion & torque. Laboratory.

Corequisite: 2030:153. Principles of mechanics that include motion, vectors, forces, equilibrium; also significant figures and unit conversions. Laboratory.

2820:162. Technical Physics: Mechanics II. (2 Credits)
Prerequisites: 2820:161 and 2030:153. Principles of mechanics that include work, power, conservation of energy, rotational motion, torque. Laboratory.

2820:163. Technical Physics: Electricity & Magnetism. (2 Credits)
Prerequisites: 2820:160 & 2030:154 (C- or better in both). Principles and applications of electricity and magnetism. Electrostatics, DC circuits, magnetism, electromagnetism, and AC circuits. Laboratory.

Prerequisites: 2820:160 and 2030:154 with a C- or better in 160. Principles and applications of heat and light: heat energy, thermodynamics, electromagnetic waves, geometric and physical optics, introduction to quantum mechanic, and radiation.

2820:290. Special Topics: General Technology. (1-4 Credits)
Prerequisite: Permission. Selected topics of subject areas of interest in General Technology. (May be repeated for a total of eight credits.)

2820:310. Programming for Technologists. (2 Credits)
Prerequisites: 2820:131 and 2030:255. A study of a technical programming language with applications in engineering technology. Limited to students in Engineering & Science Technology Department programs.