157. Electronic Devices and Circuits (3)

Prerequisite: Engr 156, 156L. Physical electronics, characteristics and properties of electronic devices, both thermionic and solid state; theory of electronic circuits; analysis of linear feedback systems.

157L. Electronic Devices and Circuits Laboratory (1)

Experimental studies of electronic devices, circuits, and commercial type apparatus. (3 lab hours; fields trips)

158. Electronic Systems and Controls (3)

Prerequisite: Engr 153, 153L, 157, 157L. Applications of electronic circuits to engineering systems including communication, control, computer, television, telemetry radar, and microwaves systems; high-frequency techniques; special applications, and design considerations.

158L. Electronic Systems and Controls Laboratory (1)

Electronic measurements; laboratory studies of electronic systems. (3 lab hours; field trips)

162. Air Conditioning (3)

Prerequisite: Engr 165. Theory and practice in air conditioning including psychrometrics, load estimating, heating and cooling systems, fluid design and controls.

162L. Air Conditioning Laboratory (1)

Practical laboratory work with commercial type units; test of components of air conditioning systems. (3 lab hours; field trips)

164. Thermodynamics-Fluid Mechanics A (3)

Not open to students with credit in Engr 140, 140L; 160, 160L; 161, 161L; or 163, 163L. Prerequisite: Engr 130 (or concurrently). Fundamentals of thermodynamics, fluid mechanics, and heat transfer as applied to engineering problems.

164L. Thermodynamics-Fluid Mechanics Laboratory A (1)

Prerequisite: Engr 164 (or concurrently). Application to thermo-fluid systems of experimental methods used in engineering practice. (3 lab hours)

165. Thermodynamics-Fluid Mechanics B (3)

Prerequisite: Engr 164. Continuation of Engr 164. Fundamentals of thermodynamics, fluid mechanics, and heat transfer as applied to engineering problems.

165L. Thermodynamics-Fluid Mechanics Laboratory B (1)

Prerequisite: Engr 164L, 165 (or concurrently). Application to thermo-fluid systems of experimental methods used in engineering practice. (3 lab hours)

166. Advanced Thermodynamics-Fluid Mechanics (3)

Prerequisite: Engr 165. Advanced topics in thermodynamics, fluid mechanics, and heat transfer as applied to engineering problems.

166L. Advanced Thermodynamics-Fluid Mechanics Laboratory (1)

Prerequisite: Engr 165L, 166 (or concurrently). Application to thermo-fluid systems of advanced experimental methods used in engineering practice. (3 lab hours)

170. Engineering Economy (2)

Prerequisite: senior standing in engineering. Importance of economic analyses in engineering and in management decision making; interest, depreciation, income tax, classification of costs, break-even and minimum cost points, economic comparisons of alternatives, economy of replacement.