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), Physics 4C. 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.

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.

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.

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.

171. Legal Aspects of Engineering (2)
Prerequisite: senior standing in engineering. Development of law, canons of ethics, torts, principles of contracts, contracting procedure and specifications, property, negotiable instruments, sales, agency and patents; preparation of reports.

172. Senior Project (2)
Prerequisite: senior standing in engineering. Study of a problem by student under supervision of a staff member; final written report to the engineering staff. (Individual project except by special permission)

173. Analog Computation (2)
Prerequisite: Phys 4B, Math 77 (or concurrently). Introduction to electronic analog computer programming. (1 lecture, 3 lab hours)

180. Electrical Power Systems (3)
Prerequisite: Engr 151, 151L, 153, 153L, 156, 156L. Electrical power equipment and systems, operation and design, commercial practice and regulations; high voltage, lightning and surge phenomena; control and protection schemes; fault and stability calculations; introduction to nuclear power engineering.

180L. Electrical Power Systems Laboratory (1)
Experiments and computations on high-voltage and electrical power equipment and systems and associated apparatus; electrical design of power systems, commercial practice. (3 lab hours; field trips)