

IA 42. Architectural Drawing (3) (Former IA 22)

Architectural drafting techniques and standards; progress from fundamentals to completing light construction working drawings, floor plans, elevations, details; application of city and county codes.

IA 140. Machine Drawing (3) (Former IA 121)

Prerequisite: IA 41 or permission of instructor. Detail working drawings of machine parts, precision dimensions, limits and tolerances, threads, shop notes, parts lists, fasteners, assembly drawings, exploded views.

IA 143. Architectural Drawing (3) (Former IA 122)

Prerequisite: IA 41 or permission of instructor. Mechanical perspective, its theory and practical application to architectural and industrial problems.

IA 146. Materials of Product Design (2) (Former IA 150)

Prerequisite: IA 41 or permission of instructor. Selection and use of materials in industrial arts design; organization and experimentation in two- and three-dimensional problems using varied media in industrial arts projects.

IA 148. Product Design (2) (Former IA 151)

Prerequisite: IA 41 or permission of instructor. New scientific developments related to design problems and industrial products; relationship of two- and three-dimensional expression in space, form and function techniques, skills of the craftsman.

ELECTRICITY-ELECTRONICS AREA**IA 52. Basic Electricity (3) (Former IA 11)**

Introduction to electricity including fundamentals of electrostatics, alternating and direct current electrical circuits, electrical calculations, magnetics, circuit applications, electrical measuring and test equipment. (lecture-lab)

IA 152. Fundamentals of Electronics (3) (Former IA 111B)

Prerequisite: IA 52. Basic electronic components and circuits including inductors, capacitors, alternating current circuits; resonance and filters; vacuum tubes and transistors; power supplies; measuring devices; oscillators; amplifiers. (lecture-lab)

IA 153. Advanced Electronics (3) (Former IA 111C)

Prerequisite: IA 152. Electronic systems and applications including basic transmitters, amplitude and frequency modulation transmitters and receivers; transistor applications; antennas; television. (lecture-lab; field trips)

IA 154. Industrial Electronics (3)

Prerequisite: IA 153. Industrial electronics systems analysis; applications of electronic circuits and devices to industrial process and machine control. (lecture-lab; field trips)

IA 156. Fundamentals of Electrical Machines (3) (Former IA 111A)

Prerequisite: IA 52. Power generation; energy conversion equipment; alternating and direct current motors and generators. (lecture-lab; field trips)

IA 158. Fundamentals of Electrical Power Distribution and Wiring (3) (Former IA 111D)

Prerequisite: IA 52. Electrical power distribution equipment and systems; industrial and residential wiring circuits, devices and systems; local and national electrical codes. (lecture-lab; field trips)