ARCHITECTURAL ENGINEERING TECHNOLOGY (AET)

AET 101: Building Materials
3 Credits
Structural and architectural use of building materials and construction assemblies.

AET 102: Methods of Construction
3 Credits
Materials and methods of construction used in buildings, as expressed in drawings.
Prerequisite: AET 101, ETG 101, ETG 102

AET 103: Plumbing and Fire Protection
3 Credits
Layout of plumbing and fire protection in buildings to meet code and usage requirements.
Prerequisite: or concurrent: AET 102

AET 113: Site Planning
2 Credits
Energy conservation through optimum site utilization, contours, cut and fill calculations, storm drainage, spot grading, and finish grading.

AET 121: Introduction to Building Environmental Systems
2 Credits
Introduction to building environmental systems technology terminology, concepts, and the design process.

AET 204: Heating, Ventilating, and Air Conditioning Layout
3 Credits
Fundamental calculations and layout of systems in buildings.
Prerequisite: AET 103. Prerequisite or concurrent: AET 102

AET 206: Architectural Presentation
2 Credits
Visual communication through architectural presentation drawings. Line, value, color, and composition.
Prerequisite: EG 001 or EG 003

AET 207: Advanced Construction Methods
3 Credits
Integration of materials and systems in working drawings.
Prerequisite: fourth-semester standing

AET 210: Architectural Engineering Office Practice Using Writing Skills
3 Credits
Concepts, procedures, and writing-intensive activities to properly prepare site observation reports, cost estimates, contractual conditions, and outline and technical specification.
Prerequisite: fourth-semester standing

AET 212: Building Lighting and Electrical Layout
3 Credits
Layout of lighting and electrical distribution in buildings.

AET 214: Steel Construction
3 Credits
Strength of materials as applied to the design of simple steel structures.
Prerequisite: AET 102, MCH 111

AET 215: Concrete Construction
3 Credits
Fundamentals of design and construction of reinforced concrete structures.
Prerequisite: AET 102, MCH 111

AET 227: Liquid Heating and Cooling Systems
3 Credits
Water, steam, and refrigerant systems and components; pumps and piping; heat exchangers; fluid and component selection; power and controls.
Prerequisite: AET 121, MET 281

AET 228: Air Heating, Cooling, and Ventilating Systems
3 Credits
Air systems and distribution components; fans and ductwork; heat exchange coils; dampers and controls; residential fired equipment operation.
Concurrent: AET 227

AET 229: Analysis of Building Environmental Systems
3 Credits
Comprehensive analysis and application of building environmental systems with focus on selected areas; calculation and layout; computer modeling of systems.
Prerequisite: fourth-semester standing
AET 296: Independent Studies

1-18 Credits/Maximum of 18

Creative projects, including research and design, that are supervised on an individual basis and that fall outside the scope of formal courses.

AET 297: Special Topics

1-9 Credits/Maximum of 9

Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.