Architecture

Introduction to Architecture

ARCH 1100 - 3 Credits

Introductory study of the theory, history, and principles, and of architecture. Basic principles of architectural analysis, criticism, and aesthetic principles. Includes the relationship of architecture to the cultures that create it specifically in terms of the societies' economic, political and social organization, technological abilities, and spiritual values. Also discusses ethical responsibilities of design professionals especially as environmental stewards. (3 lecture hours)

Basic Architectural Drafting

ARCH 1101 - 3 Credits

Fundamentals of hand drafting and architectural conventions. Includes use of tools, lettering, dimensioning, drafting techniques, and frame construction vocabulary and technology. (2 lecture hours, 2 lab hours)

Building Materials

ARCH 1111 - 4 Credits

Characteristics, properties, and applicable standards of construction materials. Includes all major structural, enclosure and finish materials and standards for materials. Emphasis on the process of material selection and evaluation including sustainability concepts and criteria.(4 lecture hours)

Architectural Design Communication

ARCH 1121 - 4 Credits

Introduction to 2-D and 3-D communication and presentation techniques as used in architecture. Includes orthographic, paraline, perspective and freehand drawing techniques and procedures. Covers basic model building and the use of drawing as a problem abstraction and diagramming technique. (1 lecture hour, 6 lab hours)

Blueprint Reading

ARCH 1130 - 2 Credits

A survey of graphic construction drawings including paper and electronic mediums. Students learn to interpret construction drawings for residential, commercial and industrial structures. Includes architectural and engineering documents and graphic conventions. (1 lecture hour, 2 lab hours)

Introduction to Architectural Design

ARCH 1131 - 4 Credits

Basic design theories and strategies related to the development of spatial concepts in architectural design, including composition, color, form, relationship of elements, and development of 2-D and 3-D design projects. Emphasis on concept generation and evaluation. Prerequisite: Architecture 1100 and Architecture 1121 with a grade of C or better, or equivalent or consent of instructor (2 lecture, 4 lab hours)

Construction Methods I

ARCH 1141 - 2 Credits

Survey of basic construction techniques and procedures through project applications. Topics include concrete, masonry, wood frame and lightweight steel construction methods and materials. Includes tool selection and use. Course is not designed to give students trade skills in these areas. (1 lecture hour, 2 lab hours)

Basic Computer-Aided Drafting-AutoCAD

ARCH 1211 - 3 Credits

Fundamentals of Computer-Aided Drafting and Design (CADD). Introduces concepts, techniques and procedures necessary to facilitate a basic functional understanding of AutoCAD. Prerequisite: Basic technical drafting course, drafting experience or consent of instructor (1 lecture hour, 4 lab hours)

Adv Computer-Aided Drafting-AutoCAD

ARCH 1212 - 3 Credits

Advanced functions of Computer-Aided Drafting and Design (CADD). Includes advanced commands, system customization, and Internet applications. 3-D modeling and rendering will be introduced. Prerequisite: Architecture 1211 with a grade of D or better or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

Introduction to Construction Management

ARCH 1301 - 3 Credits

Construction management as a project delivery system emphasizing the roles and responsibilities of construction managers, contractors, sub-contractors, owners and design professionals, and how they relate to each other. Fundamentals of project administration from pre-construction planning

to project close-out through the study and review of case studies. Includes an overview of cost estimating, meetings, project safety and scheduling. (3 lecture hours)

Introduction to BIM-Revit

ARCH 1411 - 3 Credits

Fundamentals of Building Information Modeling (BIM) as a construction documentation system. Introduces concepts and features of BIM. Includes software structure and features, modeling and editing techniques, and sheet creation and organization. Recommended: Architecture 1101 and Architecture 1211 or architectural drafting class or experience or consent of instructor. (1 lecture hour, 4 lab hours)

Advanced BIM-Revit

ARCH 1412 - 3 Credits

Advanced concepts of Building Information Modeling (BIM). Focuses on applying BIM software to develop a set of construction documents. Simulates project development and documentation. Prerequisite: Architecture 1411 with a grade of C or better or equivalent or consent of instructor (1 lecture, 4 lab hours)

Selected Topics in Architecture I

ARCH 1820 - 3 Credits

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit. as long as different topics are selected. (3 lecture hours)

Selected Topics in Architecture II

ARCH 1821 - 3 Credits

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Selected Topics in Architecture

ARCH 1827 - 1 Credits

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour)

Independent Study

ARCH 1840 - 1-4 Credits

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. Prerequisite: Consent of instructor is required (1 to 4 lecture hours, 2 to 8 lab hours)

Detailing and Construction Documents

ARCH 2102 - 4 Credits

Study of commercial construction systems and techniques. Project based class which simulates the process of a project's development in an architectural office. Includes analysis and applications of codes, regulations, and standards, material review and selection, construction detailing and documentation, and office standards and procedures for computer aided drafting and design (CADD) application. Prerequisite: Architecture 1101, Architecture 1111 and Architecture 1211, all with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 4 lab hours)

Construction Methods II

ARCH 2142 - 2 Credits

Survey of basic construction techniques and procedures through project applications. Topics include insulation, roofing, siding, installation of doors and windows, drywall, flooring and mechanical and electrical systems. Includes tool selection and use. Course is not designed to give students trade skills in these areas. (1 lecture hour, 2 lab hours)

Basic Surveying

ARCH 2150 - 2 Credits

Basic procedures, calculations and field data recording techniques used in surveying. Correct procedures for the use of surveyor's tape, engineer's level, and transit and rod to establish locations and elevations. This is not an appropriate course for someone seeking to become a licensed surveyor. (1 lecture hour, 2 lab hours)

Architecture

Architectural Design I

ARCH 2201 - 5 Credits

Exploration of form and space of the built environment. Includes process of problem analysis and evaluation to generate concepts and develop solutions. Prerequisite: Architecture 1131 with grade of C or better, or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (2 lecture hours, 6 lab hours)

Architectural Design II

ARCH 2202 - 5 Credits

Continuation of Architectural Design I. Problems involve larger scale, broader scope, and increased complexity. Advanced and digital presentation techniques will be used for presentations. Prerequisite: Architecture 2201 with a grade of C or better, or equivalent or consent of instructor (2 lecture, 6 lab hours)

Introduction to Architectural Theory

ARCH 2203 - 3 Credits

Traces the history of architecture and architectural theory from the Renaissance to the contemporary period through built projects, theoretical designs, and original writings of architects and others. Prerequisite: Architecture 1100 with a grade of D or better, or equivalent and English 1101 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One. (3 lecture hours)

Mechanical, Electrical, & Plumb Systems

ARCH 2210 - 3 Credits

An overview of mechanical, electrical and plumbing systems for buildings as used by architects and construction managers. Introduction to systems, equipment, design calculations, and drawings, standards, and conventions. Prerequisite: Architecture 1111 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

Architectural Computer Modeling

ARCH 2220 - 2 Credits

Computer graphics course using Computer-Aided Drafting (CAD) and other software to create computer architectural models and presentations. Prerequisite: Architecture 1211 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 3 lab hours)

Structural Systems

ARCH 2230 - 3 Credits

An overview of components and concepts of structural systems in steel, concrete, and wood as used by architects. Includes conceptual design and detailing. Prerequisite: Architecture 1111 or Architecture 1211 with a grade of C or better or equivalent or consent of instructor (3 lecture hours

Codes, Specifications and Contracts

ARCH 2240 - 3 Credits

Introduction to the legal framework of construction. The scope and implications of codes, includes model codes and review of structure and organization of the International Building Code (IBC), the organization, structure, and role of specifications within construction documents, standard forms of contracts and contractual relationships. Prerequisite: Architecture 1111 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

Architectural Presentation and Portfolio

ARCH 2250 - 3 Credits

Advanced architectural presentation techniques. Covers both hardcopy and digital product formats. Uses various 3-D modeling, digital presentation, digital publication and image enhancement software. Prerequisite: Architecture 1121 with a grade of C or better, or equivalent or Architecture 1211 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

Construction Estimating

ARCH 2260 - 3 Credits

Basic procedures, calculations, and techniques used in construction cost estimating. Includes bidding procedures, different types of construction estimates and the appropriate procedures for each, and the process of quantity take-offs and cost calculations including equipment, overhead, and profit components. Computer applications to produce estimates and review of existing software titles. Prerequisite: Architecture 1111 or equivalent or consent of instructor (3 lecture hours)

Construction Scheduling

ARCH 2270 - 3 Credits

Construction scheduling as a tool for project delivery and documentation, from project conception to building occupancy. Emphasizing the interrelationship of the trades and sequencing of the work during the construction process. Includes schedule composition and schedule implementation for

project success. Prerequisite: Architecture 1130 and Architecture 1301 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

BIM Management-Revit

ARCH 2413 - 3 Credits

Introduction to Building Information Modeling (BIM) applications for the construction industry. Recommended course: Architecture 2260 or concurrent enrollment in Architecture 2260. Prerequisite: Architecture 1130 with a grade of C or better or equivalent and Architecture 1301 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

Advanced Selected Topics Architecture I

ARCH 2820 - 3 Credits

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor (3 lecture hours)

Advanced Selected Topics Architecture IV

ARCH 2823 - 3 Credits

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor (6 lab hours)

Experimental/Pilot Class

ARCH 2840 - 1-6 Credits

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. Prerequisite: Consent of instructor is required (1 to 6 lecture hours, 1 to 12 lab hours)

Internship (Career & Technical Ed)yCoop Ed/Internship Occup

ARCH 2860 - 1-4 Credits

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

Internship Advanced (Career & Tech Ed)

ARCH 2865 - 1-4 Credits

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.