
Course Descriptions

**Courses noted with an asterisk indicate a course listed in the Texas Higher Education Coordinating Board (THECB) Architecture Field of Study Curriculum.*

Required Courses

ARCH 1311 INTRODUCTION TO ARCHITECTURE*

An introduction to architecture that explores the practices, principles, and wider context of architecture and design. Focuses on the role of architecture in society, culture, and the broader physical context of the built environment.

ARCH 1301 ARCHITECTURAL HISTORY I*

Part one of a survey of the history of world architecture from pre-history to the present. This course focuses on the period from pre-history up to at least the 14th Century.

ARCH 1302 ARCHITECTURAL HISTORY II*

Part two of a survey of the history of world architecture from pre-history to the present. This course focuses on the period of neo-classicism up to the modern era.

ARCH 2301 ARCHITECTURAL FREEHAND DRAWING I

Development of freehand drawing skills in architecture. Methods and skills, including emphasis on principles of light, shade, scale, proportion, line, and tonal quality for exploring and developing conceptual ideas and for clear graphic presentations.

Optional Electives

ARCE 1X21 ARCHITECTURAL ILLUSTRATION

Architectural drawing and sketching. Emphasizes architectural structures in 3-D or pictorially either by hand or computer software.

ARCE 1342 CODES, SPECIFICATIONS, AND CONTRACT DOCUMENTS

Study of ordinances, codes, and legal documents as they relate to specifications and drawing. Discussion of owner-architect-contractor responsibilities, duties, and legal relationships.

ARCE 1X52 STRUCTURAL DRAFTING

A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute.

ARCE 2X44 STATICS AND STRENGTH OF MATERIALS

Internal effects of forces acting upon elastic bodies and the resulting changes in form and dimensions. Includes stress, shear, bending moments, and simple beam design.

ARCE 2X52 MECHANICAL AND ELECTRICAL SYSTEMS

The properties of building materials (assemblies), specifications, codes, vendor references, and uses of mechanical, plumbing, conveying, and electrical systems as they relate to architecture for residential and commercial construction.

ARCH 1303 ARCHITECTURAL DESIGN I*

An introductory studio providing foundation in the conceptual, perceptual, and manual skills necessary for two-dimensional and three-dimensional design.

ARCH 1304 ARCHITECTURAL DESIGN II*

Creative problem solving and presentation of principles, concepts and ideas as applied to introductory architectural projects.

ARCH 1307 ARCHITECTURAL GRAPHICS I*

Introduction to basic drawing methods and tools. Exploration of techniques available for the design process with emphasis on two-dimensional and three-dimensional composition.

ARCH 1308 ARCHITECTURAL GRAPHICS II*

Continuation of the study, methodology, and production of architectural drawings. Exploration of techniques available for the design process with emphasis on three-dimensional composition both analog and digital.

ARCH 1315 ARCHITECTURAL COMPUTER GRAPHICS

Effective use of representational media, computer aided design, and digital media to engage formal, organizational, and environmental principles. Emphasis on the appropriate media to inform two-dimensional and three-dimensional design based upon the conventions of architectural graphic communication.

ARCH 2302 ARCHITECTURAL FREEHAND DRAWING II

Advanced freehand design drawing skills in architecture. Emphasis is on using freehand techniques in visual thinking and analysis. Development of conceptual ideas for clear graphic presentations.

ARCH 2313 ARCHITECTURAL TECHNOLOGY*

Introduction to materials and methods in the design and construction of buildings.

ARTV 1302 INTRODUCTION TO TECHNICAL ANIMATION AND RENDERING

Basic study of technical computer models and animation.

CNBT 1300 RESIDENTIAL AND LIGHT COMMERCIAL BLUEPRINT READING

Introductory blueprint reading for residential and light commercial construction.

CNBT 2317 GREEN BUILDING

Methods and materials used for buildings that conserve energy, water, and human resources.

DFTG 1X05 ARCHITECTURAL FREEHAND DRAWING II

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, and auxiliary views.

DFTG 1X09 ARCHITECTURAL FREEHAND DRAWING II

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale.

DFTG 1X17 ARCHITECTURAL DRAFTING - RESIDENTIAL

Architectural drafting procedures, practices, terms, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods.

DFTG 2X30 CIVIL DRAFTING

An in-depth study of drafting methods and principles used in civil engineering.

DFTG 1X33 MECHANICAL DRAFTING

Study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings.

DFTG 1X45 PARAMETRIC MODELING AND DESIGN

Parametric-based design software for 3D design and drafting.

DFTG 2X12 TECHNICAL ILLUSTRATION AND PRESENTATION

Study of pictorial drawings including isometrics, obliques, perspectives, charts, and graphs. Emphasis on rendering and using different media.

DFTG 2X19 INTERMEDIATE COMPUTER-AIDED DRAFTING

A continuation of practices and techniques used in basic computer-aided drafting including the development and use of prototype drawings, construction of pictorial drawings, extracting data, and basics of 3D.

DFTG 2X28 ARCHITECTURAL DRAFTING - COMMERCIAL

Architectural drafting procedures, practices, governing codes, terms and symbols, including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods.

DFTG 2X30 CIVIL DRAFTING

An in-depth study of drafting methods and principles used in civil engineering.

DFTG 2X31 ADVANCED TECHNOLOGIES IN ARCHITECTURAL DESIGN AND DRAFTING

Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture.

DFTG 2X32 ADVANCED COMPUTER-AIDED DRAFTING

Application of advanced CAD techniques.

DFTG 2X38 FINAL PROJECT – ADVANCED DRAFTING

A drafting course in which students participate in a comprehensive project from conception to conclusion.

DFTG 2X47 ADVANCED TECHNICAL ANIMATION AND RENDERING

Advanced 3D modeling, rendering and animation techniques using industry standard software. Emphasizes advanced use of camera settings, lighting, and surface to create detailed environments.