



# Lower-Division Academic Course Guide Manual

Spring 2018

Texas Higher Education Coordinating Board

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

## ARCH (Architecture)

### **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 14<sup>th</sup> Century. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB)

Student Performance Criteria:

A.7 History and Global Culture

Approval Number.....	04.0801.51	02
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		48

#### **Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Identify works of architecture from the period.
2. Define key architectural concepts and terms from the period.
3. Compare and contrast parallel and divergent histories of world architecture from the period.
4. Critically evaluate and/or analyze works of architecture landscape and urban design from the period.
5. Explain the relationship between buildings and their cultural, historical, and physical contexts, which may include consideration of vernacular and regional settings appropriate to the period.
6. Describe the architectural technology of the period, including building materials and construction techniques.

### **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.

Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

A.7 History and Global Culture

Approval Number.....	04.0801.51	02
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		48

#### **Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Identify works of architecture from the period.
2. Define key architectural concepts and terms from the period.
3. Compare and contrast parallel and divergent histories of world architecture from the period.

4. Critically evaluate and/or analyze works of architecture landscape and urban design from the period.
5. Explain the relationship between buildings and their cultural, historical, and physical contexts, which may include consideration of vernacular and regional settings appropriate to the period.
6. Describe the architectural technology of the period, including building materials and construction techniques.

**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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

- A.1 Professional Communication Skills
- A.2 Design Thinking Skills
- A.4 Architectural Design Skills
- A.5 Ordering Systems

Approval Number.....	04.0201.54	02
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

**Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Use abstract concepts and ideas in design projects.
2. Use two-dimensional and three-dimensional media effectively.
3. Employ sensitivity to the "craft" of making.
4. Use critical and iterative design processes.
5. Participate and share ideas in a common dialogue.
6. Apply organizational skills and time management.
7. Develop cognitive strategies for analysis and implementation of design ideas.

**ARCH 1304 Architectural Design II\***

Creative problem solving and presentation of principles, concepts and ideas as applied to introductory architectural projects. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

- A.1 Professional Communication Skills
- A.2 Design Thinking Skills
- A.4 Architectural Design Skills
- A.5 Ordering Systems

**Prerequisite:**

ARCH 1303 Architectural Design I (3 SCH version)

Approval Number.....	04.0201.54	02
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

**Learning Outcomes**

**Upon successful completion of this course, students will:**

- 1. Demonstrate an understanding of spatial relationships.
- 2. Engage and apply a design approach across multiple scales and contexts.
- 3. Produce projects that demonstrate an awareness of the natural environment.
- 4. Recognize the use of project programs.
- 5. Recognize the use of precedents.
- 6. Explain the significance of proportion and scale in the built environment.
- 7. Select the appropriate representational media to translate programmatic issues into architectural form.
- 8. Articulate verbal and formal compositional vocabulary of basic architectural concepts.

**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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

A.1 Professional Communication Skills

Approval Number.....	15.1303.53	11
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

**Learning Outcomes**

**Upon successful completion of this course, students will:**

- 1. Execute the major conventions of architectural representation, such as plans, sections, elevations, and other three-dimensional drawings.
- 2. Use tools necessary to produce architectural drawings.
- 3. Use drawings to explore and diagram design concepts.
- 4. Explain/describe the history of techniques associated with representation, visualization, analysis, and presentation.
- 5. Produce well-crafted presentation materials that communicate ideas clearly.

**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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

A.1 Professional Communication Skills

A.5 Ordering Systems

**Prerequisite:**

ARCH 1307 Architectural Graphics I (3 SCH version)

Approval Number.....	15.1303.53	11
maximum SCH per student .....		3

maximum SCH per course .....	3
maximum contact hours per course.....	96

**Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Execute the major conventions of architectural representation of pictorial drawings such as axonometric, isometric, and oblique views.
2. Use color effectively in design.
3. Use shade and shadow techniques effectively in design.
4. Create drawings which demonstrate an understanding of design processes.
5. Diagram spatial ideas and clarify design concepts.
6. Produce well-crafted presentation materials that communicate ideas clearly.

**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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:  
 A.8 Cultural Diversity and Social Equity  
 D.1 Stakeholder Roles in Architecture

Approval Number.....	04.0201.59	02
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		48

**Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Describe the relationship of human behavior and the built environment.
2. Summarize relevant processes of architectural education and professional practice and licensure.
3. Develop observational skills aimed at understanding and evaluating the physical and spatial qualities in architecture.
4. Describe the tools and techniques associated with architectural and other architecture-related design practices.
5. Explain the importance of architectural traditions, concepts, theories, history, and technology.
6. Explain the importance and role of architecture in relation to ecological and environmental contexts.
7. Recognize the formal, spatial, and experiential qualities and principles of architecture.
8. Explain the collaborative relationship of architecture and allied professions (including but not limited to interior design, landscape architecture, construction, and fine arts).

## **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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

- A.1 Professional Communication Skills
- A.4 Architecture Design Skills

Approval Number.....	15.1303.52	11
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

### **Learning Outcomes**

#### **Upon successful completion of this course, students will:**

1. Execute and understand digital design software.
2. Produce digital drawings that clearly and accurately communicate design intentions.
3. Manage and reproduce digital files.
4. Compose and present drawings with attention to line weight, character, and accuracy.
5. Compare and interpret the relationship between analogue and digital techniques in the design process.
6. Produce quality images and publications suitable for portfolios.
7. Recognize various digital media used to create presentations for target audiences within the profession and the general public.

## **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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

- A.1 Professional Communication Skills
- A.4 Architecture Design Skills

Approval Number.....	15.1303.51	11
maximum SCH per student .....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

### **Learning Outcomes**

#### **Upon successful completion of this course, students will:**

1. Use a range of freehand drawing media and skills related to visual communication.
2. Use drawing as the means of architectural problem solving.
3. Use graphic tools to record visual observations.
4. Recognize the importance of line weight to the perception of drawings.
5. Draw freehand lines of various forms, shapes, textures, and qualities.

**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. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

- A.1 Professional Communication Skills
- A.4 Architecture Design Skills

Prerequisite: ARCH 2301 Architectural Freehand Drawing I

Approval Number.....	15.1303.51	11
maximum SCH per student.....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

**Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Use freehand drawing skills as a design tool.
2. Communicate visually through freehand drawings to explore ideas in site plans, elevations, sections, perspective views, and other architectural graphic conventions.
3. Apply key strengths of freehand media and skills in design thinking.
4. Use a range of drawing techniques best suited to architectural practice, both as exploratory design tools and for presentations.

**ARCH 2313 Architectural Technology\***

Introduction to materials and methods in the design and construction of buildings. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria:

- B.7 Building Envelope Systems and Assemblies
- B.8 Building Materials and Assemblies

Approval Number.....	15.0101.51	11
maximum SCH per student.....		3
maximum SCH per course .....		3
maximum contact hours per course.....		96

**Learning Outcomes**

**Upon successful completion of this course, students will:**

1. Identify fundamental elements and key components of structural systems.
2. Identify different construction types for buildings.
3. Describe the properties and uses of building envelope systems and assemblies.
4. Recognize the different properties of major construction materials.
5. Describe the relationship between material properties and building form.
6. Recognize the sustainability and environmental impact of building material use and building performance.