

ARCHITECTURE



Architecture is an academic discipline concerned with the study of design, visual communication, history & theory, and construction technology. This academic discipline prepares students for entry-level employment and/or potential further study in the field of architecture. The skills developed in this discipline include predesign, conceptual design, schematic design, design development, tactile (by hand) model-making, digital (computer) model-making, building information modeling (BIM), tactile (by hand) graphics/drawing, digital (computer) graphics/drawing, architecture history, computer assisted drafting & design (CAD), construction materials & methods, construction documents, and detailing.

Transfer requirements in architecture are available in the Counseling Center. Students regularly transfer to four year accredited schools of architecture to pursue a bachelor degree. See 'Transfer Success' in the Architecture Department website. In all cases, students should consult with a counselor and the proposed transfer university for specific transfer requirements.

Career options include positions in architecture, environmental design, interior design, planning, landscape architecture, product design, and civil engineering.

A higher degree may be required to meet minimum job requirements depending on the position. Students regularly obtain employment after successfully completing this academic discipline.

Contact Information

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Associate Degree

- Associate of Science in Architecture (AS) (<https://catalog.cos.edu/areas-study/architecture/associate-science-architecture-not-for-transfer-as/>)

Certificates

- Certificate of Achievement in Architectural Design (<https://catalog.cos.edu/areas-study/architecture/certificate-achievement-architectural-design/>)
- Certificate of Achievement in Architectural Drafting (<https://catalog.cos.edu/areas-study/architecture/certificate-achievement-architectural-drafting/>)
- Certificate of Achievement in Architectural Visual Communication (<https://catalog.cos.edu/areas-study/architecture/certificate-achievement-architectural-visual-communication/>)
- Certificate of Achievement in Architecture (<https://catalog.cos.edu/areas-study/architecture/certificate-achievement-architecture/>)
- Skill Certificate in Architectural History (<https://catalog.cos.edu/areas-study/architecture/skill-certificate-architectural-history/>)
- Skill Certificate in Building Information Modeling (BIM) (<https://catalog.cos.edu/areas-study/architecture/skill-certificate-building-information-modeling-bim/>)

For a complete list of courses and descriptions visit: COURSES (<https://catalog.cos.edu/course-descriptions/>)

ARCH 010 Architectural Design 1

4unit(s)

Hours: 3 Lecture/Discussion Hours:
3 Lab

An introductory course that emphasizes design process, concept development, and creative problem solving as the means to create architectural form and space. Design projects are presented utilizing "tactile" (by hand) two and three-dimensional visual communication and scale modeling techniques. Verbal presentations in the form of critiques are also required for the purpose of communicating designs and intended concepts.

ARCH 011 Architectural Design 2

4unit(s)

Hours: 3 Lecture/Discussion Hours:
3 Lab

An advanced course that continues to explore issues initiated in the introductory course. Additionally, the course emphasizes program development, site and context analysis, precedent study, and structure as the means to create architectural form and space. Design projects are presented utilizing "tactile" (by hand) two-and three-dimensional visual communication and scale modeling techniques. Verbal presentations in the form of critiques are also required for the purpose of communicating designs and intended concepts.

Advisory on Recommended Preparation: ARCH 010 or equivalent college course with a minimum grade of C.

ARCH 013 Architectural Design 3**4unit(s)**Hours: 3 Lecture/Discussion Hours:
3 Lab

An introductory digital design course that continues the knowledge introduced in the tactile design courses plus emphasizes professional Building Information Modeling (BIM) software and techniques used to facilitate the architectural design process.

Advisory on Recommended Preparation: ARCH 010 and ARCH 011 or equivalent college course with a minimum grade of C or equivalent skills as determined by division assessment.

ARCH 014 Architectural Design 4**4unit(s)**Hours: 3 Lecture/Discussion Hours:
3 Lab

An advanced digital design course that continues the knowledge introduced in the tactile and the introductory digital design courses plus emphasizes advanced professional Building Information Modeling (BIM) software and techniques utilized to facilitate the architectural design process. Advanced techniques include digital animation and a state team competition that involves both computer generated and physical construction of a structure.

Advisory on Recommended Preparation: ARCH 010 and ARCH 011 and ARCH 013 or equivalent college course with a minimum grade of C.

ARCH 020 Visual Communication 1**3unit(s)**Hours: 2 Lecture/Discussion Hours:
2 LabHours:
1 Other

This is an introductory course of tactile (by hand) visual communication techniques applicable to the design and construction of the built environment. Drawing techniques include lettering, lines, dimensioning, diagramming, orthographic projection, axonometric projection, and perspective projection.

ARCH 021 Visual Communication 2**3unit(s)**Hours: 2 Lecture/Discussion Hours:
3 Lab

This is an advanced course of "tactile" (by hand) visual communication techniques applicable to the design and construction of the built environment. Drawing techniques include graphic symbols, architectural presentation, architectural drawing conventions; orthographic and perspective projections, rendition of value and context, color theory, figure ground ambiguity, and drawing media and techniques.

Advisory on Recommended Preparation: ARCH 020 or equivalent college course with a minimum grade of C.

ARCH 070 Architecture History 1**3unit(s)**

Hours: 3 Lecture/Discussion

History of architecture from Prehistoric to Gothic periods. Pre-Columbian Americas period is also covered. The relationship between architecture and art, science, historical events, religion, society, culture, philosophy, politics, economics, and physical conditions are studied.

ARCH 071 Architecture History 2**3unit(s)**

Hours: 3 Lecture/Discussion

History of architecture from Renaissance to 21st Century periods. The relationship between architecture and art, science, historical events, religion, society, culture, philosophy, politics, economics, and physical conditions are studied.

Advisory on Recommended Preparation: ARCH 070 or equivalent college course with a minimum grade of C.

ARCH 120 Freehand Drawing**3unit(s)**Hours: 2 Lecture/Discussion Hours:
3 Lab

An introductory course of freehand drawing techniques applicable to the design and construction of the built environment. Freehand drawing is an integral part of the architect's design process. It is instrumental in concept development, creative problem solving, documenting and perceiving space, visualization, and observation skills. Techniques include shading, shape definition, form definition, human scale, and entourage utilizing pencil, ink, color media, and combination media.

ARCH 121 Perspective Alternatives**3unit(s)**Hours: 2 Lecture/Discussion Hours:
2 LabHours:
1 Other

A study of the fundamental concepts and principles of architectural perspective using both "tactile" by hand and "digital" by computer techniques. Using hand drawings and computer software students will generate architectural perspective renderings suitable for client presentations. This course is an invaluable career asset for understanding how to enhance, embellish, and best portray building forms for people involved in architecture, illustration, building trades, and interior design.

ARCH 160 Construction Materials/Methods**4unit(s)**

Hours: 4 Lecture/Discussion

An introduction to the principles, materials, methods, and processes of construction. This course combines both theory and practical application. Site visits to view various stages of construction are an integral part of the course.

ARCH 161 Architectural Detailing**3unit(s)**Hours: 2 Lecture/Discussion Hours:
3 Lab

A course in architectural detailing that explores the transition from architectural ideas into built reality. Students draw architectural details with corresponding summaries using a computer assisted drafting (CAD) program. Different function, constructability, and aesthetics details are explored and then applied to various construction types.

Advisory on Recommended Preparation: ARCH 160 and DRFT 114 or equivalent college course with a minimum grade of C or equivalent skills as determined by departmental assessment.

ARCH 162 Conceptual Structural Analysis 3unit(s)

Hours: 3 Lecture/Discussion

A nonmathematical investigation of structural systems and components with respect to their behavior; selection of the most appropriate structural system for various building typologies.

Advisory on Recommended Preparation: ARCH 010 and ARCH 160 or equivalent college course with a minimum grade of C.

ARCH 163 Construction Documents 3unit(s)

Hours: 2.5 Lecture/Discussion Hours:

1.5 Lab

This course provides a detailed introduction to the process of construction documentation. A full set of residential construction documents emphasizing light wood frame construction is created utilizing a computer assisted drafting (CAD) program. A residential light wood frame construction scale model is also created. Prior training in the form of advisory courses or office CAD experience is required.

Advisory on Recommended Preparation: DRFT 114 and ARCH 160 or equivalent college course with a minimum grade of C.

Architecture

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