

ARCHITECTURAL SCIENCES (AS)

AS 151 Architectural Graphics 3 Hours

An introduction to the basic skills of drawing and modeling techniques. Sketching and drafting with emphasis on line weights, lettering, equipment, geometric construction and pictorial drawings. Conventional modeling and an introduction to software applications with emphasis on 3D form, context and material delineation.

Course Fee: \$50

Recent Term(s) Offered: fall 2021; spring 2022; fall 2022

AS 163 Architectural Drafting 3 Hours

An introductory course using sketching and CADD software to teach orthographic projection, isometric projection, sections, dimensioning, and 3D modeling. This course designed for majors in the Architectural Sciences Concentration, Interior Design, Civil Engineering, Geography and Textiles.

Course Fee: \$50

Recent Term(s) Offered: fall 2021; spring 2022; fall 2022

AS 180 Introduction to Architecture 3 Hours

It covers the basic concepts of building design and architectural theory of various architectural styles. The primary vehicle of investigation will be the architectural artifacts of the built environment and the philosophical rationale behind the motivation for the creation. **Colonnade/Statewide**

General Education Code E-AH | AH

Recent Term(s) Offered: fall 2021; winter 2022; summer 2022; fall 2022

AS 251 3D Modeling and Imaging 3 Hours

Introduction to 3D modeling, animation, and visualization techniques. Topics include 3D solids, perspective projection, lighting, cameras, texturing, walk-through and fly-by animations using current industry software.

Prerequisite(s): AS 151 and AS 163

Course Fee: \$20

Recent Term(s) Offered: fall 2021; spring 2022; fall 2022

AS 263 Architecture Documentation I 3 Hours

Planning and producing residential construction drawings. Residential construction standards and codes; building materials research and specification.

Prerequisite(s): AS 163 with a minimum grade of C and CM 261 (may be taken concurrently)

Course Fee: \$50

Recent Term(s) Offered: fall 2021; fall 2022

AS 273 Architectural Detailing 3 Hours

Architectural detailing in terms of function, contractibility, and aesthetics. A transition from architectural ideas to build reality. Detailing as a means of controlling: water, air heat flow, sound, aging, and load transfer. Detailing with respect to economics, ease of assembly, efficiency, and problem solving. Lecture and Laboratory.

Prerequisite(s): AS 263 with a minimum grade of C

Course Fee: \$50

Recent Term(s) Offered: spring 2022

AS 305 Building Codes 3 Hours

Introduction to format and content of current building codes, including interpretation and code research for application to residential and commercial projects, with emphasis on building design.

Prerequisite(s): CM 261

Course Fee: \$20

Recent Term(s) Offered: fall 2021; summer 2022; fall 2022

AS 351 Building Information Modeling 3 Hours

Advanced course in architectural modeling, focusing on the concepts and processes of creating object-oriented databases by embedding relevant building information into parametric modeling systems, and extracting building data using standard industry software applications.

Prerequisite(s): AS 251 with a minimum grade of C and AS 263 with a minimum grade of C

Course Fee: \$20

Recent Term(s) Offered: spring 2022; summer 2022

AS 369 Architectural Design Studio I 4 Hours

Design processes using architectural projects as case studies, design experience includes schematic design, program development, design methodologies, graphic and verbal communication skills, and environmental influences on building design: geographic location, daylighting, natural ventilation, size and shape. Lecture and laboratory.

Prerequisite(s): AS 263

Course Fee: \$30

Recent Term(s) Offered: spring 2022

AS 373 Architecture Documentation II 3 Hours

Planning and producing commercial construction drawings. Commercial construction standards and codes; building materials research and specification.

Prerequisite(s): AS 273 with a minimum grade of C and AS 305 and SEAS 325 and AS 351

Course Fee: \$50

Recent Term(s) Offered: fall 2021; fall 2022

AS 375 Special Architectural Problems 3 Hours

A research project is required that includes a written report and an innovative design of a non-standard dwelling done on CAD or with conventional drafting tools. Lecture and laboratory.

Course Fee: \$25

Recent Term(s) Offered: fall 2021; winter 2022; summer 2022; fall 2022

AS 378 Architectural / Professional Presentation 3 Hours

Techniques to present an idea, concept, architectural design, and individual talents. Techniques include architectural modeling, both physical and virtual; presentation graphics; virtual walk-through and fly-by; portfolio design; and web page development. Lecture and Laboratory.

Prerequisite(s): AMS 369

Restriction(s): Students with a semester level of Freshman or Sophomore may **not** enroll.

Course Fee: \$25

Recent Term(s) Offered: None

AS 380 Independent Study in Industrial Sciences 3 Hours

This course is designed for the undergraduate student who would like to study different aspects of technology, that may or may not be included in existing formal courses of instruction. Both the theoretical and empirical parts of the investigation will be reported in a formal document. Note: Special permission required prior to enrollment.

Restriction(s): Students with a semester level of Academy Junior, Academy Senior, Freshman or Sophomore may **not** enroll.

Course Fee: \$10

Recent Term(s) Offered: spring 2022

AS 463 Architecture Documentation III 3 Hours

Advanced planning and producing commercial construction drawings relating to additions, renovations, and demolition. Commercial construction standards and codes; building materials research and specification; systems coordination.

Course Fee: \$50

Recent Term(s) Offered: None

AS 469 Architectural Design Studio II 4 Hours

Advanced analysis, synthesis, and appraisal techniques responding to contemporary architectural issues. Theory and practice of architecture as art and science. In-depth studio experience in: schematic design and design development; selection and conceptual design of structural systems; mechanical and electrical systems, materials and connective systems, specifications and building costs with focus on sustainable design. Lecture and Laboratory. Note: Course pass required.

Prerequisite(s): AS 273 and CM 282 and AS 369

Course Fee: \$50

Recent Term(s) Offered: fall 2021; summer 2022; fall 2022

AS 470 Land Development 4 Hours

Land development in terms of promoting: a community, human well-being, environmental sustainability, green space and economic growth. Site analysis, climatic and regional analysis, cultural and contextual analysis, and human pattern language will be investigated and applied. Lecture and Laboratory. Note: Course pass required.

Prerequisite(s): AMS 273

Recent Term(s) Offered: None

AS 488 Comprehensive Design 3 Hours

Identification and collaboration with a real world client, architectural proposals, project programmatic requirements, project research, site analysis, building codes and regulations, professional portfolio. Note: Consent of instructor may be required.

Prerequisite(s): AS 373 (may be taken concurrently) and AS 369

Course Fee: \$25

Recent Term(s) Offered: fall 2021; fall 2022

AS 490 Senior Research for Architectural Sciences 3 Hours

Students work on capstone research projects utilizing skills and knowledge from prior courses in the Architectural Sciences program. Projects in this course will simulate real life projects encountered in industry.

Prerequisite(s): AS 373 with a minimum grade of C and AS 488 with a minimum grade of C

Course Fee: \$50

Recent Term(s) Offered: spring 2022