

ARCHITECTURE (ARC)

Architecture (ARC) Courses

ARC 1113. Introduction to the Built Environment. (3-0) 3 Credit Hours. (TCCN = ARCH 1311)

An introduction to the design and construction of the built environment. Includes consideration of professional practice, ethics, interior design, landscape architecture, planning, urbanism, and construction. May be applied toward the core curriculum requirement in Language, Philosophy and Culture. (Formerly COA 1113. Credit cannot be earned for both ARC 1113 and COA 1113.) Course Fee: LRC1 \$12; SAP1 \$25; STSE \$30; DL01 \$75.

ARC 1133. Construction Material and Concepts. (3-0) 3 Credit Hours.

Introduction to concepts and skills fundamental to structure, construction, building enclosure, sustainability, and interior environments. Analysis and selection of materials, components, and assemblies. Introduction to the historic role of materials in architectural and interior design. (Same as CSM 2113. Credit cannot be earned for both ARC 1133 and CSM 2113.) Course Fee: SAP1 \$25; STSE \$30.

ARC 1213. Design 1. (0-9) 3 Credit Hours. (TCCN = ARCH 1303)

Prerequisite: Completion of or concurrent enrollment in ARC 1313. Introduction to design through a focus on design literacy and the creative conceptualization through direct engagement with materials and processes of making. Introduction to architectural design processes, materials, precedents, and architectural ideas. Projects investigate basic issues fundamental to the design and experience of human environments. Course requires the purchase of a drawing supplies kit. (Formerly ARC 1214 and COA 1213 in previous catalogs. Credit cannot be earned for more than one of the following: ARC 1213, ARC 1214, or COA 1213.) Course Fee: SAP1 \$25; STSE \$30; DL01 \$75.

ARC 1223. Design 2. (1-8) 3 Credit Hours. (TCCN = ARCH 1304)

Prerequisite: ARC 1213 and ARC 1313. Introduction to design as a broadly creative practice that investigates the design process through experiential learning from conceptual development through representational visualization and conventions. Exploration of spatial experience, context, program, order, typology, architectural elements, materials, human factors, color, light, and precedent in the design of human environments. Includes an introduction to portfolio production/graphic design. (Formerly ARC 1224. Credit cannot be earned for both ARC 1224 and ARC 1223.) Course Fee: SAP1 \$25; STSE \$30.

ARC 1313. Design Visualization 1. (0-9) 3 Credit Hours. (TCCN = ARCH 1307)

Prerequisite: Completion of or concurrent enrollment in ARC 1213. Engages students in an exploration of graphic processes, tools, and techniques used in the design of human environments within the design laboratory. Advances critical thinking and ability to visualize, diagram, design, describe, and analyze human environments. Develops thinking and making skills in 2D and 3D across multiple scales. Course requires the purchase of a drawing supplies kit.

ARC 1331. Design Visualization 2. (0-3) 1 Credit Hour.

Prerequisite: ARC 1313, ARC 1213, and completion of or concurrent enrollment in ARC 1223. Building on the discoveries and techniques of Design Visualization 1, this course engages students in an exploration of digital processes, platforms, and tools within a laboratory environment. Advances critical thinking and ability to visualize, diagram, design, and analyze human environments. Develops thinking and making skills in 2D and 3D across multiple scales. Also includes an introduction to portfolio design and production/graphic design. Course Fee: LRE1 \$25; STSE \$10.

ARC 1513. Great Buildings and Cities of the World. (3-0) 3 Credit Hours.

This course explores the characteristics of great buildings and great cities, examining precedents from the Global South and North, Eastern and Western hemispheres, vernacular and professional traditions, and bottom-up and top-down processes. The course surveys five thousand years of built history, advancing the thesis that building is a cultural act that reflects and informs societal values. Students have the opportunity to learn about applying theories of architecture, urbanism, interior design, decorative arts, and art to the built environment. Students also have the opportunity to develop the ability to analyze architectural and urban case studies through the lens of form, program, and culture. Course Fee: LRC1 \$12; SAP1 \$25; STSE \$30; DL01 \$75.

ARC 2133. Principles of Architectural Structures. (3-0) 3 Credit Hours.

Prerequisite: Enrollment as an ARC or IDE major. An introduction to the principles of architectural structures as related to architectural design. Includes consideration of spatial, structural, and aesthetic issues of building structural systems, and introduces structural behavior, forces, and responses in structural systems. Course Fee: DL01 \$75; SAP1 \$25; STSE \$30.

ARC 2156. Design 3. (0-18) 6 Credit Hours. (TCCN = ARCH 2603)

Prerequisite: Enrollment as an ARC or IDE major and have passed Gateway. Continued development of design processes through experiential learning in the exploration of the nature and impact of place, land, and climate within the design process. Focuses on the design of environmentally responsive buildings that includes consideration of structure, material, space, form, site, climate, and context. Utilizes a range of digital tools, environments, and platforms. Includes continued production and exhibition of the design portfolio. Course Fee: SAP1 \$25; STSE \$60; DL01 \$150.

ARC 2166. Design 4. (0-18) 6 Credit Hours. (TCCN = ARCH 2604)

Prerequisite: ARC 2156. Continued development and refinement of design processes through experiential learning in the exploration of the nature and impact of site, place, city, and culture within the design of human environments. Focuses on the design of place-specific buildings that includes consideration of structure, material, space, form, site, climate, and urban context. Utilizes a range of more advanced digital tools, environments, and platforms in design and representation. Includes continued production and exhibition of the design portfolio. Course fees: SAP1 \$25; STSE \$60.

ARC 2233. Principles of Environmental Systems. (3-0) 3 Credit Hours.

Prerequisite: Enrollment as an ARC or IDE major. Introduction to the design of environmentally responsive buildings and the natural and artificial systems that support them. Includes consideration of topics such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, acoustics, and building services systems. Course Fee: SAP1 \$25; STSE \$30; DL01 \$75.

ARC 2413. Global History of Architecture and Urbanism: Prehistory to Medieval. (3-0) 3 Credit Hours. (TCCN = ARCH 1301)

Introduction to the history of architecture, urbanism, and material culture from prehistory to the late Middle Ages. Explores the varied ways in which architecture reflects and shapes the social, religious, and political concerns of civilizations in the global context. May be applied toward the core curriculum requirement in Creative Arts. Course Fees: LRC1 \$12; SAP1 \$25; STSE \$30; DL01 \$75.

ARC 2423. Global History of Architecture and Urbanism: Renaissance to 19th Century. (3-0) 3 Credit Hours. (TCCN = ARCH 1302)

Introduction to the history of architecture, urbanism, and material culture from the Renaissance to the mid-19th century. Explores the varied ways in which architecture reflects and shapes the social, religious, and political concerns of civilizations in the global context. May be applied toward the Core Curriculum requirement in Language, Philosophy and Culture. Course Fees: SAP1 \$25; STSE \$30; DL01 \$75.

ARC 3113. Advanced Design Visualization. (0-9) 3 Credit Hours.

Prerequisite: ARC 1313, ARC 1331, and enrollment as an Architecture or an Interior Design major or consent of instructor. Advanced exploration of graphic processes and techniques utilized in the analysis, design, visualization, or construction of human environments. May be repeated for credit when topics vary. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30; DL01 \$75.

ARC 3133. Advanced Digital Visualization. (0-9) 3 Credit Hours.

Prerequisites: ARC 1313 and ARC 1331, or consent of instructor. Advanced exploration of digital graphic design, theory, and communication modes and techniques utilized in the design of human environments for representation, analysis, and visualization. May be repeated for credit when the topics vary. This course has Differential Tuition.

ARC 3433. Topics in Architecture and Thought. (3-0) 3 Credit Hours.

Prerequisites: ARC 2166 or consent of instructor. A lecture/seminar course that provides students the opportunity to explore a variety of architectural ideas, concepts, theories, approaches, or topics related to architectural design. May be repeated for credit when topics vary. This course has Differential Tuition. Course fees: DL01 \$75; SAP1 \$25; STSE \$30.

ARC 3613. History of Modern Architecture. (3-0) 3 Credit Hours.

Prerequisites: WRC 1013 and WRC 1023. Study of the social, aesthetic, theoretical, technical, cultural, and professional forces that form, shape, and communicate modern architecture. Completion of ARC 2413 and ARC 2423 or IDE 2413 and IDE 2423 is recommended for Architecture and Interior Design majors. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30; DL01 \$75.

ARC 4103. Architectural Lighting Design. (3-0) 3 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. Considers the aesthetics of light, color and materials, luminaire design, architectural lighting systems, guidelines, energy codes, controls, introduction to lighting simulation, and human visual perception/comfort. This course has Differential Tuition.

ARC 4143. Architecture Topics. (3-0) 3 Credit Hours.

Prerequisite: ARC 2156 and ARC 2166. A course exploring issues in architecture. May be repeated for credit when topics vary. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4156. Advanced Architectural Design Studio. (0-18) 6 Credit Hours.

Prerequisite: ARC 2166, ARC 2133, and ARC 2233. Advanced architectural design that focuses on building design amid issues of architectural practice and the development of professional skills. Course focus may vary among Building Design Studio, Community Design Studio, and Design/Build Studio. Topics may range from building technology, systems, materials, and assemblies to typologies, design theories, and design processes, and from place-making and human experience and/or the inter-relationship of building, environment, and society. Course may be repeated for credit. No more than 18 credit hours of ARC 4156 may count towards the degree. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$60; DL01 \$150.

ARC 4183. Environmental Systems. (2-3) 3 Credit Hours.

Prerequisites: ARC 2166 and ARC 2233. Advanced issues in the design of environmentally responsive buildings and the natural and artificial systems that support them, such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, acoustics, and building services systems. Includes the use of appropriate performance assessment tools. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30.

ARC 4213. Design and Fabrication Workshop. (0-9) 3 Credit Hours.

Focuses on essential elements of furniture or product design and fabrication, emphasizing relations to human environments, architectural space, human factors, and the use of materials, processes, and methods. May include digital design technologies and processes. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30.

ARC 4223. Topics in Design Computing. (2-3) 3 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. Theory-practice seminar course exploring critical, spatial, and philosophical issues related to the impact of digital technologies within human environments. Involves 2-D and 3-D digital media. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4233. Computer Projects in Design. (2-3) 3 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. Project-driven lecture/laboratory course exploring advanced issues associated with 3-D modeling, animation, photo-realistic visualization, and computer-aided manufacturing. Considers the role these processes and allied theories play in architectural and interior design. (Same as IDE 4233. Credit cannot be earned for both ARC 4233 and IDE 4233.) This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30; DL01 \$75.

ARC 4246. Building Systems Studio. (0-18) 6 Credit Hours.

Prerequisite: ARC 4156 (taken twice). Advanced architectural design studio addressing the theoretical and practical issues of considerate and responsible design and detailing of a small building from the ground up. Addresses the whole building in terms of its integration with the site and climate, its structural, environmental, daylighting, and envelope systems, as well as accessibility, life safety, and vertical circulation. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$60; DL01 \$150.

ARC 4283. Architectural Structures. (2-3) 3 Credit Hours.

Prerequisites: ARC 2166 and ARC 2133. Advanced study of architectural structures; considers the physical principles that govern classical statics and strength of materials. Graphical and mathematical design of structural systems. Consideration of the role of structural articulation in the design of buildings. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30.

ARC 4333. Practicum/Internship. (0-0) 3 Credit Hours.

Prerequisites: ARC 2166 and consent of instructor. Offers students majoring in architecture or interior design a supervised professional practice experience with public agencies or private firms. Individual conferences and written reports required. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30.

ARC 4816. International Studies Studio. (0-18) 6 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. An architecture or planning studio associated with a study abroad program. (Same as IDE 4816. Credit cannot be earned for both ARC 4816 and IDE 4816.) This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$60.

ARC 4823. International Studies Theory Seminar. (3-0) 3 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. A lecture/seminar course associated with a study abroad program; involves field trips. (Same as IDE 4823. Credit cannot be earned for both ARC 4823 and IDE 4823.) This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4833. International Studies Drawing Seminar. (0-9) 3 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. A drawing course associated with a study abroad program; involves field trips. (Same as IDE 4833. Credit cannot be earned for both ARC 4833 and IDE 4833.) This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4843. International Studies History Seminar. (3-0) 3 Credit Hours.

Prerequisite: ARC 2166 or consent of instructor. A lecture/seminar course associated with a study abroad program; involves field trips. (Same as IDE 4843. Credit cannot be earned for both ARC 4843 and IDE 4843.) This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4911. Independent Study. (0-0) 1 Credit Hour.

Prerequisites: Permission in writing (form available) from the instructor, the student's advisor, the School Director, and the Dean of the College in which the course is offered. Scholarly research under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, may apply to a bachelor's degree. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$10.

ARC 4913. Independent Study. (0-0) 3 Credit Hours.

Prerequisites: Permission in writing (form available) from the instructor, the student's advisor, the School Director, and the Dean of the College in which the course is offered. Scholarly research under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, may apply to a bachelor's degree. This course has Differential Tuition. Course Fees: SAP1 \$25; STSE \$30.

ARC 4916. Independent Study. (0-0) 6 Credit Hours.

Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the School Director, and the Dean of the College in which the course is offered. Scholarly research under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, may apply to a bachelor's degree. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4953. Special Studies in Architecture. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or often available as part of the regular course offerings. Special studies may be repeated for credit when the topics vary, but not more than 3 semester credit hours for ARC 4953 or 12 hours for ARC 4956, regardless of discipline, will apply to a bachelor's degree. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.

ARC 4956. Special Studies in Architecture. (0-18) 6 Credit Hours.

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or often available as part of the regular course offerings. Special studies may be repeated for credit when the topics vary, but not more than 3 semester credit hours for ARC 4953 or 12 hours for ARC 4956, regardless of discipline, will apply to a bachelor's degree. This course has Differential Tuition. Course Fee: SAP1 \$25; STSE \$30.