

ARCHITECTURAL STUDIES & DESIGN (ARCH)

ARCH 102. Introduction to Architecture. (2 Credits)

This course seeks to examine the questions, "What is an architect?" "What does an architect do?" and "What is architecture?" Addressed will be the development of the architectural education system in the United States, including an introduction to the architectural experience program, licensure and registration, and professional practice. Particular focus will be given to the wide range of tasks that architects are required to perform. Also studied through the exploration of the social, environmental, behavioral, aesthetic, technological and political influences, will be the place of architects in society and architecture in culture. Pre or Co-requisite: COMP 100 (minimum) or permission of instructor 2 credits (2 lecture hours), fall semester This course fulfills the Liberal Arts and Sciences requirement

ARCH 141. Architectural Design I. (4 Credits)

This course is the first of a four course sequence addressing the fundamental issues of architectural design. The study of three-dimensional architectural design principles will be introduced. This will be tackled through the exploration of design processes, the vocabulary of design, rationale and meaning of design, elements of form and space, as well as organizational and compositional strategies. Students will explore and express solutions to multiple design problems through different architectural media. The semester will culminate in a final project in which students will be expected to demonstrate their understanding of basic architectural design. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Pre-or Co-requisites: ARCH 101 or ARCH 182, MATH 102 (minimum) or permission of instructor 4 credits (2 lecture hours, 4 laboratory hours), fall semester This course fulfills the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for the Arts

ARCH 142. Architectural Design II. (4 Credits)

This course (the second in a series of four) is the sequential course to Architectural Design I. The principles of three dimensional design explored in Architectural Design I will be applied to problems and analyses dealing with order and definition through the creation and manifestation of spatial volumes. In working through these problems, students are expected to develop and demonstrate a design logic that accounts for composition, precedent, organization, and context. Ultimately the studio will conclude with a comprehensive final project. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Prerequisite: ARCH 141 Pre- or Co-requisite MATH 102 (minimum) or permission of instructor 4 credits (2 lecture hours, 4 laboratory hours), spring semester This course fulfills the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for the Arts

ARCH 151. Arch Pre History to 1800. (3 Credits)

This survey of architecture is an overview of the history of architecture from pre-history to the nineteenth century. The major architects and cultural forces shaping each era will be given primary focus. In addition, the social, environmental, behavioral, aesthetic, technological and political forces that influence and affect architectural forms, ideas and urban patterns will be studied. Pre- or Co-requisite: COMP 101 (minimum) or permission of instructor 3 credits (3 lecture hours), Spring semester This course fulfills the Liberal Arts and Sciences requirement.

ARCH 182. Architectural Graphic Comm.. (2 Credits)

This is a drawing course designed to teach students interested in architecture to recognize and graphically depict forms and textures in the natural and built environment. Instruction will be given in freehand and hardline drafting/ drawing; basic pencil, color and rendering techniques; orthographic projection, as well as the principles of pictorial (oblique, axonometric and perspective) drawing. These drawing techniques, methods and principles will aid students in the development of their architectural presentation, drawing, and rendering skills. The course will culminate in the execution and composition of a comprehensive architectural drawing presentation. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Pre- or Co requisites: ARCH 141, MATH 102 (minimum) or permission of instructor 2 credits (1 lecture hour, 2 laboratory hours), fall semester This course fulfills the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for the Arts

ARCH 243. Architectural Design III. (4 Credits)

This course (the third in a series of four) is the sequential course to Architectural Design II. It emphasizes the study of the relationship between facade, plan, and section as two-dimensional constructs, describing three-dimensional reality. This will be explored through a series of analysis and design problems. Throughout the semester, each student will develop an architectural portfolio emphasizing their creative design process and documenting work from this course and other courses. The presentation of creative work in this portfolio will be approached as a design problem. The portfolio will be created in a digital format. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Prerequisites: ARCH 142 Pre- or Co- requisite MATH 103 (minimum) or permission of instructor 4 credits (2 lecture hours, 4 laboratory hours), fall semester This course fulfills the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for the Arts

ARCH 244. Architectural Design IV. (4 Credits)

This course (the fourth in a series of four) is the sequential to Architectural Design III. (It is the final course in the four-course sequence). A series of architectural projects will be explored in response to the natural and built environment. Principles of design developed in the previous architectural design courses and other courses will be synthesized. With the use of analyses, research, design presentations and critiques, students will follow structured programs and employ independent design processes to the design projects. Projects will vary depending on the progress and approach to architectural design as deemed appropriate by the faculty member. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Prerequisite: ARCH 243 Pre- or Co- requisite MATH 103 (minimum) or permission of instructor 4 credits (2 lecture hours, 4 laboratory hours), spring semester This course fulfills the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for the Arts

ARCH 252. Architecture: 1800 to Present. (3 Credits)

This survey of the western tradition in architecture is an overview of the history of architecture from the nineteenth century through today. Major architects and cultural forces shaping each era will be given primary focus. The social, environmental, behavioral, aesthetic, technological and political forces that influence and affect architectural forms, ideas and urban patterns will be explored through analytical study. Prerequisite: ARCH 151, COMP 101 (minimum) or permission of instructor 3 credits (3 lecture hours), spring semester This course fulfills the Liberal Arts and Sciences requirement

ARCH 271. Architectural Technology I. (3 Credits)

This course is an introduction to building construction and materials with an emphasis on the various enclosure systems developed for wood. Students will explore floor, wall and roof assemblies including joists, rafters, studs, windows, doors and advanced pre-engineered products. Students will be expected to design appropriate solutions for specific loading configurations as determined through calculations and material criteria. Building code use and construction document creation will be integrated throughout the course. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Prerequisite: ARCH 101 or ARCH 182, CAD 181 or permission of instructor Pre- or Co-requisite: CAD 183 or ARCH 283, MATH 103 (minimum) or permission of instructor 3 credits (1 lecture hour, 4 laboratory hours), fall semester

ARCH 272. Architectural Technology II. (3 Credits)

Building upon knowledge developed in ARCH 271, students will investigate various interior and exterior enclosure and framing systems, with an emphasis on materials such as concrete and steel. Students will study the principles of these materials from individual structural characteristics to industry uses. This course will investigate in detail sitecast and precast concrete systems, concrete reinforcing and detailing, and steel framing systems and detailing. Also included will be site planning (interpolation and grading), traditional and innovative roofing systems, building accessibility and construction documentation (drawings, project manuals/specifications). This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Prerequisites: ARCH 271, CAD 183 or ARCH 283, MATH 103 (minimum) or permission of instructor 3 credits (1 lecture hour, 4 laboratory hours), spring semester

ARCH 283. Arch CAD Drafting & Design. (2 Credits)

This course will introduce computer-aided drafting and design (CAD) software designed for the utilization in the field of architecture. By using CAD software, students will learn to generate professional quality two-dimensional drawings and details. Ultimately by using multiple software packages, students will explore three-dimensional modeling, culminating in the creation of realistic color renderings of buildings and furnishings. This course is for Architectural Studies and Design majors. Non majors by permission of instructor only. Prerequisite: CAD 181 Pre- or Co-requisite: ARCH 271, MATH 103 (minimum) or permission of instructor 2 credits (1 lecture hour, two laboratory hours), fall semester