

Architectural Studies

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About fifty years ago, the Dutch architect Aldo van Eyck observed, "Whatever space and time mean, place and occasion mean more. For space in the image of man is place, and time in the image of man is occasion". Two important contextual factors have had continuing influences on the evolution of the Architecture Program's mission. The first of these is this place called Norwich.

Founded by Alden Partridge in the early nineteenth-century, the university pioneered the idea of an "American System of Education". This system recognizes the importance of experiential learning as part of the educational process. The second is this place called Vermont. Not only is it a state recognized internationally for maintaining the strong bond between people and the land, but also as a place where the craftsman's skill and creative expression are still esteemed. The program strives to understand this power of place to shape human ecology and to understand how humans in turn shape the place.

Norwich University offers a Master of Architecture professional degree. The Masters degree will be awarded upon the successful completion of a five and one-half years curriculum. The successful student will also receive a B.S. in Architectural Studies at the completion of their first four years. The combined curriculum is accredited by the National Architectural Accrediting Board (NAAB).

The faculty of the Architecture Program have conscientiously designed and detailed the curriculum to create a professional learning experience that will better prepare graduates for the practice of architecture in the new millennium. The curriculum reflects the University's ideals to develop citizens with integrity, conviction, and self-respect, educated and motivated to be leaders in service to the community. Within the program, experiential learning goes beyond merely developing skills. Reflection is the other half of this kind of learning process. We are concerned with all the dimensions of making and meaning.

The first four years of the curriculum lead to a Bachelor of Science in Architectural Studies and offer the students an opportunity to pursue a minor in another field. At the successful completion of the fourth year, all students meeting the degree requirements will be awarded a bachelor of Science in Architectural Studies Degree. Attaining this degree is a requirement for entering the Masters program. Admission into the Masters of Architecture is not automatic. In their fourth-year students must submit a portfolio of their studio work for review and approval by an architecture faculty committee. This threshold also requires a minimum university GPA of 2.50 and a GPA of 2.75 for all design studio courses. The Masters' program offers graduate-level professional electives as well as the opportunity to undertake a thesis, or another kind of capstone project, of one's own choosing. Perhaps the most exciting and innovative aspect of the Masters' curriculum is the requirement of an architectural internship in the summer between the fourth and fifth years. For this practicum, students will be required to locate and work in an architecture office (or in another design-related firm). The course work will be completed on-line using distance-learning techniques, which will not only permit students to work in locations of their choosing, but will also give each individual experience in digital communications and technologies which are major evolving aspects of architectural practice today.

The curriculum features the use of threshold points and portfolio reviews for each student in order to better identify individual career objectives as well as to assure the high academic caliber of every Norwich graduate.

Graduates from other colleges are not being accepted into the Master of Architect Program; transfers are accepted into the B.S. in Architectural Studies and are governed under existing university undergraduate academic regulations (including 60 percent of credit hours being earned at Norwich). The Masters of Architecture Program does not accept transfer credit at the 500 level. Students have an opportunity to spend a semester abroad on approved exchange programs, such as at Hochschule Wismar in Germany, the DIS Program in Copenhagen, Denmark, the Lexia Program in Berlin, Germany and biannual summer study abroad trips, organized by the School, typically earning six credits.

As the digital realm is becoming a prevalent tool in architecture, the School has a wireless network system that allows students to bring their own computer to the design studios. It is important to note that students will be required, in their second year of the Bachelor of Architectural Studies, to bring their own computer (preferably laptop) to the design studio. All work produced by students for class assignments is the property of the School of Architecture and Art and will be returned only at the discretion of the faculty. It is common practice to retain representative student work for exhibition and accreditation purposes. Students are required to maintain a portfolio of their studio work. Any student who receives a grade of 'D' for two sequential, numerical or chronological, design studio courses (including AP 111 and AP 118) must repeat both of these courses and receive a grade of 'C' or better in both to advance to the next design level.

Statement from the National Architectural Accrediting Board

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute and accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Norwich University, School of Architecture and Art offers the following NAAB accredited degree:

M. Arch. (pre-professional degree with 141 credits + 34 graduated credits)

Next accreditation visit: 2017

B.S. in Architectural Studies – Curriculum Map

Mission

To understand the power of place to shape human ecology and to understand how humans shape the place in turn. The School emphasizes the development of leadership and skills in the making of place, and recognizes the need to balance creative, technological and social issues.

First Year			
Fall	Credits	Spring	Credits
AP 111 Fundamentals of Architecture	4	AP 118 Fundamentals of Architecture II	4
MA 107 Precalculus Mathematics	4	MA 108 Applied Calculus or 121 Calculus I ¹	4
EN 101 Composition and Literature I	3	EN 102 Composition and Literature II	3
HI 107 The History of Civilization I	3	HI 108 The History of Civilization II	3
SA 103 Introduction to Drawing	3	SA 104 Introduction to Visual Design	3
	17		17
Second Year			
Fall	Credits	Spring	Credits
AP 211 Architectural Design I	5	AP 212 Architectural Design II	5
FA 201 History/Theory of Architecture I	3	FA 202 History/Theory of Architecture II	3
AP 225 Introduction to Passive Environmental Systems	3	AP 325 Materials, Construction, and Design	3
PS 201 General Physics I	4	Lab Science	4
General Education Elective	3	General Education Elective	3
	18		18
Third Year			
Fall	Credits	Spring	Credits
AP 311 Architectural Design III	5	AP 312 Architectural Design IV	5
AP 221 Site Development and Design	3	AP 222 Human Issues in Design	3
AP 327 Active Building Systems I	3	AP 328 Active Building Systems II	3
CE 351 Statics and Mechanics of Materials	4	CE 457 Wood, Steel, and Concrete Structures	4
FA 308 History/Theory of Architectural III	3	FA 309 History/Theory of Architectural IV	3
	18		18
Fourth Year			
Fall	Credits	Spring	Credits
AP 411 Architectural Design V	5	AP 412 Architectural Design VI	5
Free Elective	3	AP 436 Project Delivery and Documentation	4
Architectural Elective ²	3	Free Elective	3
Free Elective	3	Architectural Elective ²	3
Free Elective	3	Free Elective	3
	17		18
Total Credits: 141			

¹ IN LIEU OF MA 108 OR MA 121, an approved geometry course may be substituted.

² Students with a declared minor may substitute required courses in the minor for one or both of these AP electives in fourth year only.

General Education Electives (as defined by the university) must include at least one course in literature, one course in social sciences (sociology, psychology, economics, or political science courses). FA 201, FA 202, FA 308, and FA 309 count as General Education electives. All Studio Art (SA) courses count as General Education electives.

Free Electives are Non Architecture Electives which may not include any courses with AP prefixes.

In order to apply for the M.Arch., an overall GPA of 2.5 is required and a studio GPA of 2.75 is required.

Minor in Architectural Studies

A minor in Architectural Studies has the following course requirements:

AP 111	Fundamentals of Architecture	4
AP 118	Fundamentals of Architecture II	4
FA 201	History/Theory of Architecture I	3
FA 202	History/Theory of Architecture II	3

At least three additional courses with AP prefixes, totaling not less than 8 credit hours.	8
Total Credits	22

Minimum total credit hours for a minor in Architectural Studies is 18. All courses must be passed with a grade of 'C' or better. Enrollment into courses is subject to availability of space.

Architecture Courses

AP 106 Architectural Drafting 3 Credits

Techniques of architectural drafting are introduced as basic skills used to describe architectural form. The various graphic tools, techniques, and conventions are presented and the rationale behind their use is explained. In addition to the basic graphic constructions and multi-view projections, the methods of developing architectural plans, elevations, and sections are addressed. This course is primarily intended for students who have had little or no prior introduction to mechanical and architectural drafting. One hour of lecture and three 3-hours of studio per week. 1 lecture hour and 3 studio hours.

AP 111 Fundamentals of Architecture 4 Credits

An introduction to the basic principles and skills that constitute the discipline of architecture. A series of two and three dimensional graphic exercises is used to cultivate an understanding of architectonics, the intentional arrangement of space and enclosure to communicate human values while also introducing graphic techniques for communicating concepts and solutions. One hour of lecture and three 9-hour studios per week.

AP 118 Fundamentals of Architecture II 4 Credits

A continuation of the introduction to the fundamental processes and technologies that constitute the discipline of architecture. This course investigates the design process, explores interactive computer graphics (CAD) as a design tool, and culminates with the application of these principles, processes, and skills to an architectural design problem. One hour of lecture and 9 hours of studio per week. Prerequisite: AP 111.

AP 211 Architectural Design I 5 Credits

The first in a sequence of design studio courses introducing the processes, judgment, and communications involved in the synthesis of architectural form. Through a focused series of individual and group projects, the influences of the human and physical contexts on form are explored. One hour of lecture and three 4-hour studios per week. Prerequisite: AP 118. 1 lecture hour and 12 studio hours.

AP 212 Architectural Design II 5 Credits

Second in a sequence of design studio courses emphasizing the processes, judgment, and communications involved in the synthesis of architectural form. Through a focused series of individual and/or group projects, the influences of functional requirements on form are explored. One hour of lecture and three 4-hour studios per week. Prerequisite: AP 211. 1 lecture hour and 0 to 12 studio hours.

AP 221 Site Development and Design 3 Credits

A course that deals with engineering principles and design considerations involved with site design. Earth shaping, drainage, roadway alignment, parking lot layouts, code requirements and environmental factors are studied prior to and after design changes. Two hours of lecture and one 2-hour studio per week. 2 lecture hours and 2 studio hours.

AP 222 Human Issues in Design 3 Credits

An introduction to the psychological, sociological, and physical factors that influence the design of architectural space. The fields of anthropometrics, ergonomics, and proxemics are addressed, as well as considerations for barrier-free environments. Three hours of lecture/discussion per week. 3 lecture hours.

AP 225 Introduction to Passive Environmental Systems 3 Credits

Through coordinated lectures and demonstrations, the impacts of environmental energies on architectural form are introduced and explored. Emphasis is given to the processes by which the architect orders light, climate, gravity, and sound responses to achieve building geometry. The course also addresses concepts and strategies for responding to environmental hazards, and designing healthy buildings and green architecture. Three hours of lecture. Prerequisite: AP 118, EG 110 or instructor's permission. 3 lecture hours.

AP 241 Architectural Delineation 3 Credits

A studio course in advanced graphic methods. Various rendering techniques, definitive design development, and the principles of construction drawings and architectural detailing are presented and explored through individual projects. One hour of lecture and two 2-hour studios per week. 1 lecture hour and 4 studio hours.

AP 311 Architectural Design III 5 Credits

The development of the comprehensive building process as a synthesis of spatial, functional, and contextual concerns with emphases on building systems and materials. Individual and group problems are of a limited and defined scope. One hour of lecture and three 4-hour studios per week. Prerequisites: AP 212 and AP 325. Corequisites: AP 327.

AP 312 Architectural Design IV 5 Credits

This fourth course in the design studio sequence continues the development of a comprehensive building design process with problems of complex but limited scope. The synthesis of spatial, functional, and contextual concerns, as directly linked to the understanding and employment of building systems, continues to provide a framework. One 1-hour lecture and three 4-hour studios per week. Prerequisite: AP 311. 1 lecture hour and 12 studio hours.

AP 325 Materials, Construction, and Design 3 Credits

An introduction to the processes by which construction materials and systems are evaluated, selected, incorporated, and detailed in building design. Both measurable and immeasurable design responses to environmental energies are explored in soils, concrete, masonry, wood, and metals. Three hours of lecture per week. Prerequisite: AP 225. 3 lecture hours.

AP 327 Active Building Systems I 3 Credits

A survey of contemporary mechanical building equipment and systems, including heating, ventilation and air conditioning. Emphasis is placed on comparisons of design parameters, interfaces, and impacts on overall building form. Energy efficiency is addressed. Prerequisites: AP 225 and MA 107. 3 lecture hours.

AP 328 Active Building Systems II 3 Credits

A continuation of AP 327, surveying contemporary electrical, lighting, and plumbing equipment and systems. Emphasis is placed on comparisons of design parameters, interfaces, and impacts on overall building form. Energy efficiency and building codes are addressed. Prerequisite: AP 327. 3 lecture hours.

AP 403 Architectural Seminar in History and Theory 3 Credits

As both an art and a science, the profession of architecture is continually undergoing change and reassessment. This elective seminar focuses on one or more specific issues and topics regarding the historic and philosophical contexts that influence architecture today. Typically these topics range from the study of specific historic periods or schools of thought regarding design to the diverse trends in current architectural thinking. AP 504 shall require a graduate-level paper or project. This course may be repeated for credit. Three hours of lecture/discussion per week. 3 lecture hours.

AP 406 Architectural Theory 3 Credits**AP 411 Architectural Design V 5 Credits**

Comprehensive problem-oriented design studio offered to fourth year students by various faculty members. The extension of the comprehensive design proves to include problems of an expanded scope and large scale, including building complexes and urban design. Individual and group problems emphasize the complex relationships of environmental factors, human concerns, and architectural form. This studio is considered the undergraduate capstone course in the undergraduate portion of the Architecture Program. A design portfolio, covering all seven semesters of studio work and including a written paper, is required to be submitted at the completion of this course. Prerequisite: AP 312. 1 lecture hour and 12 studio hours.

AP 412 Architectural Design VI 5 Credits

Elective problem-oriented studios offered to fourth year students by various faculty members. The extension of the comprehensive design process to include problems of expanded scope and large scale, including building complexes and urban design. Individual and group problems emphasize the complex interrelationships of environmental factors, human concerns, and architectural form. One hour of lecture and three 4-hour studios per week. Prerequisite: AP 312. 1 lecture hour and 12 studio hours.

AP 414 Architectural Seminar In Design 3 Credits

This elective seminar investigates in a non-studio setting one or more specific concepts, issues, or topics related to architectural design and its associated disciplines, such as urban, landscape, interior, and visual design. AP 514 shall require a graduate level paper or project. This course may be repeated for credit. Three hours of lecture/discussion per week. Prerequisite: approval of instructor. Cross listed with AP 520.

AP 424 Architectural Seminar in Technology 3 Credits

As both an art and science, the profession of architecture is continually undergoing change and reassessment. This elective seminar focuses on one or more of the specific issues, topics, or skills related to technologies in architecture today. Typically, these specific semester topics range from advanced materials and construction systems to energy-conserving design; from environmental issues to hands-on building experiences. AP520 shall require a graduate-level paper or project. This course may be repeated for credit. Three hours of lecture/discussion per week. Prerequisites: AP114, AP325, or approval of instructor. Cross listed with AP520.

AP 434 Architectural Seminar in Process 3 Credits

As both an art and science, the profession of architecture is continually undergoing change and reassessment. This elective seminar focuses on one or more specific topics regarding the current and future practice of architecture: what architects do, and how they do it. Typically, these topics range from design techniques to office management and from specialties within the practice, to the legal environmental, and social forces that influence it. AP 534 seminar shall require a graduate-level paper or project. This course may be repeated for credit. Three hours of lecture/discussion per week. Prerequisite: instructor's approval. Cross listed with AP 534.

AP 436 Project Delivery and Documentation 4 Credits

Relationships between the formal methods of project delivery and the architectural office form the basic investigation of this course. The project delivery process and the methods of communication and the documentation involved provide a detail study of typical office procedures. The studio component of this course provides practical experience of the typical project delivery process. Documentation is approached as the fundamental means of architectural communication. This communication is multi-layered acting as a foundation for the means of production of contemporary architecture. Various tools will be utilized ranging from computer aided design to conceptual organization schema in both the practice of typical architectural project delivery and the development of new means of communication and production. Two hours of lecture and four hours of studio per week. 2 lecture and 4 studio hours.

AP 455 Special Projects in Architecture 1-3 Credit

An execution of a singular project related to architectural design, history/theory, process, or technology selected by the individual student. The course focuses on in-depth independent research, development, and a formal written and/or graphic presentation of an architecturally-related topic not otherwise covered in course offerings. The student must secure a faculty member who will agree to serve as advisor/evaluator for the project. Limited to Architecture majors who have completed at least the first two years of the curriculum. Hours and credits to be arranged. 1 to 3 lecture hours.

AP 456 Senior Project 4 Credits**AP 499 Sketching School 3 Credits****AP 499L Advanced Seminar: Sketching 0 Credits****Art History Courses****FA 201 History/Theory of Architecture I 3 Credits**

This course explores the architecture of different cultures from around the world beginning with the earliest evidence of human habitation and ending with the arrival of the renaissance. It examines the development of domestic, civic, and religious sites, as well as towns and settlements. The course explores major cultural, social, technological, and ideological influences on built environments, as well as examines the history, the context, and the form of notable examples. Three hours of lecture per week. Preference given to architecture majors. Note: Students who successfully complete this course may not take FA 221.

FA 202 History/Theory of Architecture II 3 Credits

This course explores the architecture of different cultures from around the world focusing on Western architecture from the Renaissance to the 19th century. It examines the development of domestic, civic, and religious sites, as well as towns and settlements. The course explores major cultural, social, and technological influences on built environments, as well as looks at the history, the context, and the form of notable examples. It additionally examines the developing ideologies of prominent practitioners. Three hours of lecture per week. Preference given to Architecture majors.

FA 221 History of Visual Arts I: Prehistoric to 1350 3 Credits

These courses provide an opportunity to develop an understanding of well-made artifacts by addressing quality or artistic value in terms of form and content. Students are acquainted with the principal periods of Western art by a study of outstanding examples of architecture, sculpture, painting, and the minor arts, ranging from prehistoric times to the present. First semester: formal vocabulary; prehistoric art to the medieval international style. Second semester: Renaissance to the present. Three hours of lecture per week.

FA 222 History of Visual Arts II: 1350 to the Modern Era 3 Credits

These courses provide an opportunity to develop an understanding of well-made artifacts by addressing quality or artistic value in terms of form and content. Students are acquainted with the principal periods of Western art by a study of outstanding examples of architecture, sculpture, painting, and the minor arts, ranging from prehistoric times to the present. First semester: formal vocabulary; prehistoric art to the medieval international style. Second semester: Renaissance to the present. Three hours of lecture per week.

FA 240 History of American Art 3 Credits

A survey of American architecture and art from colonial times to the present. Emphasis is placed on the rise and development of the arts in the United States and the changing nature and functions of art in American society. European influences and Native American contributions will be noted. Three hours of lecture per week.

FA 250 Topics in Art 3 Credits

Topics vary each semester, focusing on past and current issues in art related to historical style, art and the social context, aesthetic theory, tradition and innovation in media, and the role of art and the artist as an agent of communication in our time. This course may be repeated for credit. Three hours of lecture per week.

FA 260 Art Appreciation 3 Credits

This course is introductory in nature and focuses on varied ways to appreciate art: the role of the viewer, the purposes and functions of art, the creative process, materials and technology available to the artist, the relationship of art to culture (Western and non-Western), and issues of art style and meaning. Three hours of lecture per week.

FA 308 History/Theory of Architecture III 3 Credits

This course presents a survey of architecture from approximately the mid eighteenth century through to the early 1930s, focusing on the rise and early development of the modern movement. It integrates the historic aspects of the key examples of architecture and urban design from this era with the theoretical ideas that generated the built form. Included in the course content is a discussion of the new programs, new social/economic/political organizations and new construction materials and methodologies that drove the search for new forms to represent the new ideas of the modern industrialized era. Prerequisite: FA 202. 3 lecture hours.

FA 309 History/Theory of Architecture IV 3 Credits

This course presents a survey of architecture from approximately the 1930s to the present day focusing on the various evolutionary paths of architectural development, including the codification of the international style and the subsequent challenges to the modern dogma into eras of mid and late modernism, expressionism, nationalism, organicism, brutalism, regionalism, postmodernism, deconstructivist architecture, and into the integration of the digital in design and manufacture of built works. Each evolutionary stance is discussed through analysis of the key works integrating the historic aspects with the theoretical ideas that generated the architectural works. Prerequisite FA 308. 3 hours of lecture.

Studio Arts Courses**SA 103 Introduction to Drawing 3 Credits**

An introduction to drawing, emphasizing articulation of space and pictorial syntax while developing abilities of perception and ways of seeing. Class work is primarily based on observational study. Assigned projects address fundamental and conceptual problems through historical and contemporary artistic practice. Three-hour studio, one-hour lecture per week.

SA 104 Introduction to Visual Design 3 Credits

An introduction to the language of visual expression, using studio projects to explore the basic principles of visual art and design as a fundamental component of visual communication. Students acquire a working knowledge of visual syntax applicable to the study of art history, popular culture, and the art of composition. Three-hour studio, one-hour lecture per week.

SA 105 Introduction to Painting 3 Credits

An introduction to the issues of contemporary painting, stressing a beginning command of the conventions of pictorial space, narrative, and the language of color. Students explore painting as a means of communicating ideas through visual symbols and metaphors. Class assignments and individual projects explore technical, conceptual, and historical issues central to the language of painting. Three-hour studio, one-hour lecture per week.

SA 106 Introduction to Printmaking 3 Credits

An introduction to a diverse range of printmaking media: linocut, woodcut, and screen-printing process. Both color and black-and-white printing methods are explored. Class assignments and individual projects explore technical, conceptual, and historical issues central to the language of printmaking and its connections to contemporary culture. Three-hour studio, one-hour lecture per week.

SA 107 Introduction to Photography 3 Credits

An introduction to photographic principles as a means of visual communication and its relationship to history and contemporary issues. The class examines the invention and history of photography. A single-lens reflex manual 35mm film camera is required. Three-hour studio, one-hour lecture per week.

SA 200 Intermediate Studio 3 Credits

This course level is for students pursuing further study in one of the following areas: drawing, design, painting, photography, and printmaking. The focus is on developing more complex levels of thought more thorough incorporation of theory and individual initiative in project content and completion. Only one area of study will be pursued each semester. Can be repeated for credit. Six hours of studio per week. Prerequisite: SA100-level studio in area of study or permission of the instructor.

SA 205 Water Media 3 Credits

This course examines water media, stressing an advanced command of the conventions of pictorial space, narrative, and the language of color and design. Class assignments and individual projects explore technical, conceptual, contemporary, and historical issues central to water media. Attention is given to each student's unique and expressive handling of the media. Six hours of studio per week. Prerequisite: SA 103 or instructor's permission.

SA 210 The Portrait 3 Credits

This course explores the perceptual and conceptual means to construct the human face as a way to explore, understand, and portray the human condition. The structure of the head is examined as anatomy and as form. Historical examples are presented and examined as well as contemporary theory of the portrait and self-portrait. Six hours of studio per week. Prerequisite: SA 103, or instructor's permission.

SA 265 Life Drawing 3 Credits

The course focuses on study and exploration of the human figure using a range of approaches, with emphasis on observation, anatomy, spatial structure, and the use of life drawing as a means to analyze and explore the nature of the human condition. Historical examples ranging from cave painting to contemporary art are presented, researched, and discussed. Six hours of studio per week. Prerequisite: SA 103, or instructor's permission.

SA 299 Life Drawing 3 Credits

SA 299L Inter Studio: Sketching 0 Credits

SA 300 Advanced Studio 3 Credits

This course is for students who have completed SA 100 and SA 200 level courses in their area of study and have a demonstrated ability to be self-directed and self motivated in their purposes and goals. Prior to registration, the student must have an approved outline for their individual course of study. Can be repeated for credit. Six hours of studio per week. Prior to registration, the student must submit in writing, and the instructor must accept, a proposed course of study.