Architecure (graduate)

Charles A. Dana Professor David Woolf; Professors Arthur Schaller and Aron Temkin; Associate Professors Wendy Cox, Eleanor D'Aponte, Michael Hoffman, Matthew Lutz, and Danny Sagan; Assistant Professors Timothy Parker and Tolya Stonorov; Lecturer Cara Armstrong; Instruction Specialist Angelo Arnold.

The School of Architecture + Art explores in many dimensions the meaning of making and the making of meaning. The School reinforces the student's ability to think creatively and independently, and reflects the University's ideals to develop citizens with integrity, conviction, and self-respect who are educated and motivated to be leaders in service to the community. The School of Architecture and Art offers a Bachelor of Science in Architectural Studies, and a Master of Architecture (NAAB-accredited).

The Master of Architecture (MArch) degree program builds on a student's undergraduate experience and builds the foundation for a career as a professional architect. This is a one-and-a-half-year program consisting of a summer internship, one academic year of graduate-level seminars and an individual, custom-designed thesis experience designed around a topic of the student's choosing.

Between the fourth and fifth years, students work as an intern in an architecture office (or in a design-related firm). Coursework is completed using distance-learning techniques, which not only permit students to work where they wish, but encourages them to master digital communications technology, important to architectural practice.

The Master of Architecture degree is a first professional degree and is required for licensure.

Admission Requirements:

Application to the M.Arch program is normally made between the 7th and 8th semesters of the BS/AS degree program. Students who are enrolled in the BS/AS at Norwich, may apply to the M.Arch program at any time after their 7th semester. If they chose to graduate with the BS/AS and leave the university, they may apply to the program at a future date.

Graduates from other colleges are not accepted into the fifth year of this program, nor is admission for students who graduate with a Norwich bachelor's degree in architecture automatic.

Admission to the M.Arch program is based upon:

- minimum Norwich cumulative GPA of 2.50
- minimum GPA of 2.75 in all design studio courses: AP 111, AP 118, AP 211, AP 212, AP 311, AP 312, AP 411, AP 412
- Submission of a portfolio, conforming to the criteria in effect at the time of application, for review and approval by the architecture graduate admissions committee.

Students are provisionally accepted until they meet the graduation requirements for the BS/AS degree. Accepted students may defer their start of coursework for one year. Beyond the one year deferral, they must reapply. Reapplications will be evaluated under the admission criteria in effect at the time of reapplication.

Mission

To build on the experience of the Bachelor's curriculum, the Master's degree in Architecture prepares the student for the profession of architecture. The School emphasizes practical experience (through a practicum) as well as autonomy and rigor (through an architectural thesis and graduate seminars).

Goals:

Graduates of the Architecture Program will:

- Be respected and recognized for technical competence in the creation of solutions that balance sustainability, resiliency, societal and economic issues.
- Become successful architects with a range of capabilities including residential design, small and large institutional project design, civic projects and urban planning projects.
- Help their communities by advocating and implementing good design principles at a broad range of scales Communicate to both technical and non-technical audiences.
- Actively engage in continuing education throughout life.
- Be recognized for their leadership skills and their abilities to work with all people.

Outcomes:

Master's of Architecture majors will:

- Gain a way of thinking, rooted in the iterative, test-and-learn approach to creativity and innovation.
- Learn to utilize techniques, skills, conventions, and modern digital and hand tools and techniques necessary for professional practice.
- Understand structural systems, heating and cooling systems, circulation systems, building systems, etc.
- Practice resilient and sustainable design.
- Learn materials and methods for construction.
- Prepare and deliver construction documents.
- Be trained in the ethics of the profession and learn to make ethical decisions.
- Function as a member of a multidisciplinary team and be able to assume leadership roles on the team.
- Understand and begin the process of architectural internship, training and registration necessary for the profession as well as the expectation for lifelong learning.

Careers for this Major:

- Private architectural firms
- Commercial, industrial, and retail design
- Facilities management
- Real estate and development
- Engineering

- Sales and manufacturing
- Government
- Industrial corporations
- Public and private institutions
- Academia

Accreditation:

Combined, the bachelor and master programs form a five-year professional degree accredited by the National Architectural Accrediting Board (NAAB), www.naab.org (http://www.naab.org) , 1101 Connecticut Ave NW #410, Washington, DC 20036, phone, 202-783-2007.

Master of Architecture - Curriculum Map 2016-2017 Catalog

Summer		6
AP 531	Architectural Internship	6
Fall		14
AP 525	Architectural Thesis Research	5
AP 5XX Architecture Elective		3
AP 5XX Architecture Elective		3
AP 558	Global Issues in Architecture	3
Spring		14
AP 526	Architectural Thesis	5
AP 533	Professional Practice	3
AP 5XX Architecture Elective		3
AP 5XX Architecture Elective		3
Total Cr.		34

Students must maintain a 3.0 average GPA in the Masters program.

Courses

AP 106 Architectural Drafting 3 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.
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 Cr.

AP 411 Architectural Design V 5 Cr.
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 Cr.
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 Cr.
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 Cr.
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: AP 114, AP 325, or approval of instructor. Cross listed with AP 520.

AP 431 Design Thinking and Innovation 3 Cr.
This course explores the experience and practice of innovation by examining creativity as the ability to turn ideas into action. It examines the development, management, evolution, and broad context of emerging technologies and associated ventures. Students will complete innovation challenges from start to finish and leave with an understanding of the key tenets of design thinking and a sense for ways they can incorporate them into their work. This 'hands-on', project-based course involves students in the design and development of 'visual brand languages' for emerging technologies, foundation exercises in creativity, and case studies based on pivotal products from the past 50 years. Prerequisite: Not open to freshmen students.

AP 434 Architectural Seminar in Process 3 Cr.
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 Cr.
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 Cr.
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 Cr.

AP 499 Sketching School 3 Cr.

AP 499L Advanced Seminar: Sketching 0 Cr.