

Architectural Studies (undergraduate)

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Architecture is the art and science of the built environment: buildings, groups of buildings, communities, and their surroundings. As a profession, it is an art, science, and business with careers available in private firms, government, theater and film, industrial corporations, manufacturing, design, planning, public and private institutions, academia, and in architectural research.

The School of Architecture + Art is one of the smallest programs of its kind in the country, fostering a natural and effective mentoring relationship between faculty and students. Courses take a balanced approach to both the art and science of architecture and we embrace environmental sustainability as part of Vermont's ethos.

A Bachelor's Degree in Architectural Studies is a four-year pre-professional program that prepares students for a one-and-a-half-year Master of Architecture program (accredited by the National Architectural Accrediting Board) offered at Norwich. It is an introduction to the profession, where students learn vital technical, artistic, design, and communication skills.

The architecture major will study in a studio environment that encourages creativity, critical thinking, independent learning, and the exploration of ideas through hands-on making. The studio environment in some ways resembles a large architectural office with 10 to 15 students assigned to one faculty member. The small size encourages both the exchange of ideas and intense effort. Studio encourages personal responsibility, teamwork, a sense of community, and a commitment to working on real-world problems. The integration of design-build studios as well as close collaboration between our technical courses and design studios creates an education deeply rooted in practical solutions and technical invention. The architecture major will also have the opportunity to spend a semester at Norwich University's CityLab: Berlin.

In our unique Design: Build architecture studios, students collaboratively conceptualize, plan and make a habitable structure that benefits the community. Projects have included a town library, a house for Habitat for Humanity, an outdoor high-school classroom, a mobile energy research laboratory, and a solar house.

A bachelor's degree offers students the chance to pursue a minor in other areas, including studio art, construction management, business, leadership, and art history.

Mission:

We offer our students the education necessary for the practice of architecture and art in their fullest sense: to design, make, and build in a way that embodies cultural meaning, employs technology wisely, and contributes to social and environmental justice. To this end, we seek to instill in students the core values of comprehensive knowledge, holistic awareness, continual innovation, active cooperation, and ethical responsibility through a balanced curriculum comprising observation, analysis, exploration, iteration, and synthesis, grappling throughout with abstract as well as concrete material, intellectual as well as hands-on experience.

We endeavor to contribute to the making of meaning and the meaning of making.

Goals:

Students (majors and minors) 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.
- Acquire a range of capabilities that can be used at different scales of architecture projects, 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:

Architecture majors and minors 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.

B.S. in Architectural Studies - Curriculum Map 2017-2018 Catalog

Print PDF Curriculum Map (http://catalog.norwich.edu/residentialprogramscatalog/collegeofprofessionalschools/schoolofarchitectureandart/architecturstudies/archst_1498759554601.pdf)

Freshman		
Fall	Cr. Spring	Cr.
AP 111 Fundamentals of Architecture	4 AP 118 Fundamentals of Architecture II	4
EN 101 Composition and Literature I	3 EN 102 Composition and Literature II	3
HI 107 The History of Civilization I (General Education History)	3 HI 108 The History of Civilization II	3
MA 107 Precalculus Mathematics (General Education Math)	4 SA 104 Introduction to Visual Design (General Education Arts & Humanities)	3
SA 103 Introduction to Drawing	3 MA 220 Geometry in Action (General Education Math)	3
Semester Total Credits	17 Semester Total Credits	16
Sophomore		
Fall	Cr. Spring	Cr.
AP 211 Architectural Design I	5 AP 212 Architectural Design II	5
AP 225 Introduction to Passive Environmental Systems	3 AP 325 Materials, Construction, and Design	3
FA 201 History/Theory of Architecture I	3 FA 202 History/Theory of Architecture II	3
PS 201 General Physics I (General Education Lab Science)	4 General Education Lab Science (http://catalog.norwich.edu/archives/2017-18/residentialprogramscatalog/generaleducationgoals)	4
General Education Literature (http://catalog.norwich.edu/archives/2017-18/residentialprogramscatalog/generaleducationgoals)	3 General Education Social Science (http://catalog.norwich.edu/archives/2017-18/residentialprogramscatalog/generaleducationgoals)	3
Semester Total Credits	18 Semester Total Credits	18
Junior		
Fall	Cr. Spring	Cr.
AP 221 Site Development and Design	3 AP 222 Human Issues in Design	3
AP 311 Architectural Design III	5 AP 312 Architectural Design IV	5
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 Architecture III	3 FA 309 History/Theory of Architecture IV	3
Semester Total Credits	18 Semester Total Credits	18
Senior		
Fall	Cr. Spring	Cr.
AP 411 Architectural Design V	5 AP 412 Architectural Design VI (Capstone)	5
Free Elective	3 AP 436 Project Delivery and Documentation (General Education Ethics)	4
Free Elective	3 AP Elective (may substitute required course for a minor)	3
Free Elective	3 Free Elective	3
AP Elective (may substitute required course for a minor)	3 Free Elective	3
Semester Total Credits	17 Semester Total Credits	18
Total Credits For This Major: 140		

Architectural Studies Minor Curriculum Map 2016-2017 Catalog

- The minor in Architectural Studies is for students in other majors who are interested in studying the use and design of space for human work and habitation.
- A minor in Architectural Studies requires 18 credit hours, involving four designated courses and at least three others.
- All courses require a grade of C or higher.

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
AP Elective		3
AP Elective		3
AP Elective		2
Total Cr.		18

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.

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.****AP 501 Architectural Theory 3 Cr.**

A course that introduces the deeper, often implicit and hidden motivations that influence the making of architecture. Basic human values and beliefs leading to classic philosophies and aesthetics are explored. Major historic and contemporary propositions on architecture are surveyed. AP 501 requires a graduate-level paper or project. Three hours of lecture/discussion per week. Prerequisite: FA 202.

AP 504 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. Requires a graduate-level paper or project. This course may be repeated for credit. Three hours of lecture/discussion per week. Prerequisites: FA 202 and FA 308. Cross listed with AP403.

AP 511 Architectural Studio VII 5 Cr.

Elective problem-oriented studio offered by various faculty members and/or visiting critics. Introspective problems are intended to broaden and deepen individual understanding of the processes, theories, and systems that influence the design of the built environment. Emphasis is on the thorough examination of all aspects of building. Includes the identification, program preparation, and approval of the capstone project(s) to be undertaken in AP 512 in the succeeding semester. One hour of lecture and three 4-hour studios per week. Only open to graduate students in Architecture.

AP 512 Architectural Studio VIII 5 Cr.

Elective problem-oriented studio offered by various faculty members and/or visiting critics. Introspective problems are intended to broaden and deepen individual understanding of the processes, theories, and systems that influence the design of the built environment. Emphasis is on the thorough examination of all aspects of building. Consists of a single comprehensive design project that represents a capstone experience for the 5-year design sequence. The individual program and design solution must be recorded in a bound format similar to that required for the thesis. 1 hour of lecture and 3 four-hour studios per week. Prerequisite: AP 511.

AP 514 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. Requires 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 414.

AP 520 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. Requires 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 424.

AP 525 Architectural Thesis Research 5 Cr.

A singular design or design-related project selected by the individual student. The course consists of independent research done at a sufficient depth to display a mastery of the process of defining an architectural problem, including the investigation and discussion of the procedural, physical, and intellectual limits of this problem. The course culminates with the publication of an architectural program and a theoretical statement as well as the generation of all contextual information and design strategies as the basis for AP 526, Architectural Thesis. Three hours of class time and meetings with thesis advisors plus six hours of studio per week. Prerequisites: fifth-year standing and approval of Architecture program faculty.

AP 526 Architectural Thesis 5 Cr.

Execution of a singular design or design-related project selected by the individual student. The project is based on independent research and preliminary design work produced in AP 525 and is of sufficient depth and breadth to display a mastery of design skills and comprehensive understanding of the architectural issues related to form, process, judgment, representation, and communication. The work is done under the guidance of a thesis advisor chosen by the student. Two hours of meetings with thesis advisors plus twelve hours of studio per week. Prerequisite: AP 525 with a grade of C or higher.

AP 531 Architectural Internship 6 Cr.

This course offers an opportunity for each student enrolled in Master of Architecture Program to develop a bridge between their academic experience and professional practice. As a "bridge" the learning experience is considered to move in both directions. The internship will allow individuals to apply knowledge learned in the classroom and will also allow the opportunity for individuals to bring practical experience to bear on their graduate studies. Students are responsible to secure a position with an architectural, or an architecturally-related/construction-related, firm for a period of no less than eight weeks. This position must be approved by the course instructor. The firm must be willing to submit periodic and final evaluations of the student's performance. Email is used during the employment period for communication between the students and the instructor. Requirements for the course shall include maintaining a journal and writing a major term paper related to professional practice. Typically, this course shall be taken during the summer between the fourth and fifth years, or as otherwise approved by the division head. 8 weeks, summers. Prerequisites: Acceptance into the M. Arch. Program.

AP 533 Professional Practice 3 Cr.

Investigation into the issues related to the professional practice of architecture in contemporary American society. Topics include project management, finance and economics; business and practice management; and laws and regulations governing the profession. Three hours of lecture per week.

AP 534 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. Requires 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 434.

AP 555 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. Hours and credits to be arranged.

AP 558 Global Issues in Architecture 3 Cr.

A seminar course for fifth-year architecture majors that offers opportunity for in-depth analysis, discussion, and research into contemporary issues that impact the profession of architecture and architectural design. The course will be flexible in the terms of content so that the nature of the material has a currency relevant to the complex, changing nature of the profession. The topical choices may address global concerns such as sustainability, cultural changes, conservation and preservation, information technology, and the emerging role of the architect as a professional in the 21st century. The course structure will be more constant, reflecting the values embodied in the profession, the architecture program, and the university. Specifically, there will be a strong bridge made between pedagogy and teaching methodology; course material will be synthesized and applied in a manner that demonstrates critical thinking, teamwork, creativity and community service. Three hours of seminar per week. Open only to Master's students in Architecture.

AP 599 Advanced Seminar: Sketching 3 Cr.

AP 599L Advanced Seminar: Sketching 0 Cr.