

### **M.Arch.3 COMPREHENSIVE PROFESSIONAL STUDIES**

A professional (NAAB-accredited) degree program in Architecture is provided for graduate applicants with degrees in fields other than Architecture. The student is presumed to have undertaken little or no concentration in architecture prior to enrollment in the program. Students in this program option complete a sequence of study to provide a foundation of design and to form a basic understanding of the discipline. Upon successful completion of the qualifying year, students advance through a sequence of studies providing for development of building design skills and knowledge of building systems and the technical processes of construction. During the final year of the curriculum, students pursue individual study interests, and complete a thesis. This program normally requires at least three and one half years (three academic years, plus one required summer) of study. Students in the M.Arch.3 program may spend a semester participating in the Europe Study Abroad Travel or Residency programs. Students in the M.Arch.3 program normally may elect to study at the Washington-Alexandria Architecture Center (National Capital Region - NCR) for the final, thesis year, after completing the first two years of the program at the main Virginia Tech campus in Blacksburg.

#### **QUALIFYING YEAR**

The central focus of the qualifying year is work in the design laboratory, in which students and faculty explore the nature of inquiry in architecture through the study of concepts and principles of form, through development of environmental awareness and aesthetic judgment, and through the study of descriptive geometry. As a complement to the design lab, the Qualifying Design Seminar introduces students to the basic historical, ethical, intellectual, and theoretical foundations of the discipline of architecture.

Students in M.Arch.3, Comprehensive Professional Studies Program must complete 18 credit hours (two semesters) of Qualifying Design Laboratory (ARCH 4715-16) and 6 credit hours (two semesters) of Qualifying Design Seminar (ARCH 4705-06). Additionally, students in this program take two semesters (6 credit hours) of Architectural History (ARCH 5134). One semester (3 credit hours) of Basic Principles of Structures (ESM 3704) is required. College math containing algebra, trigonometry and analytic geometry is required as a prerequisite for this course.

#### **ARCHITECTURE AND SYSTEMS LABORATORY**

The major emphasis of the Architecture and Systems Laboratory is on building design in support of fundamental human needs, and on the integration of knowledge of building systems, support structure, assembly, and construction in the design process.

During their second year, students in the M.Arch.3, Comprehensive Professional Studies Program must complete two semesters (12 credit hours) of Architecture and Systems Laboratory (ARCH 5515-16).

#### **PROFESSIONAL CORE COURSES**

Professional Core Courses are intended to provide a basic understanding of the building technologies required to mediate between human activities and detrimental forces, of principles of materials and construction, of building structural systems, and of professional architectural practice. These related components also provide support for interactive exploration of the relation between architecture and technology in the design laboratories.

ARCH 5044G Professional Practice  
ARCH 5755G or 5756G Building Environmental Systems  
ARCH 5565, 5566 Building Materials and Construction  
ARCH 5775G, 5776G Intermediate Building Structures

Students in the M.Arch.3, Comprehensive Professional Studies Program must complete 18 credit hours of Professional Core Courses. Some Professional Core courses (ARCH 5755G/56G, Bldg. Env. Systems,

ARCH 5565-66, Bldg. Materials and Construction, ARCH 5775G-76G Intermediate Bldg. Structures) are not offered at the Washington-Alexandria Architecture Center campus. Students planning to study in Alexandria for the final year of the program must take these courses during the second year or during summer sessions.

#### ADVANCED DESIGN LABORATORY

The Advanced Design Laboratory provides for further development of students' building design skills through a comprehensive design project in which they must address relevant aspects of site and building program, demonstrating their technical and professional competence in architectural design.

Students in the M.Arch.3, Comprehensive Professional Studies Program must complete 6 credit hours of Advanced Design Laboratory (ARCH 5755-56). In addition to this requirement, additional variable elective credits in this course may be conducted through the European Study Abroad Program.

#### URBAN DESIGN SEMINAR

This seminar reviews modern concepts in architecture and urban design. Significant works of architecture and the theories of their authors are evaluated critically through studies supported by readings of the architects' ideas informing the work. The purpose is to assist students in articulating their own positions within the discipline of architecture. Students in the M.Arch.3, Comprehensive Professional Studies program must complete one semester (3 credit hours) of Urban Design Seminar (ARCH 5624).

#### BUILDING SCIENCE COURSES

Building Science Courses provide students with advanced study in the principles of environmental science and building systems technologies. Core courses which are regularly offered on the main campus in Blacksburg, based on faculty availability, are:

ARCH 5035, 5036 Advanced Environmental Controls  
ARCH 5045 Environmental Design Research  
ARCH 5055, 5056 Advanced Building Structures  
ARCH 5565, 5556 Building Materials and Construction

Multiple sections of each of the above courses, comprised of separate, but related subject areas, may be offered each year.

#### ELECTIVES

Elective course offerings are intended to reinforce and support the student's professional development and the broad scope of individual interests students bring to the program. In addition to the elective course offerings in other departments within the College of Architecture and Urban Studies, students are encouraged to study in other disciplines in other Colleges within the University. Although students may define their own areas of interest, regularly offered graduate elective courses in Architecture include:

ARCH 5115, 5116 Media and the Environment Workshop  
ARCH 5125, 5126 Materials Processes Workshop  
ARCH 5134 Topics in Architecture History and Theory  
ARCH 5064 Computer Applications in Design

Each year Special Study Options (ARCH, 5984) are offered with varying content. These courses, as well as ARCH 5974, Independent Study, may be used for elective credit.

#### THESIS

Each candidate for the M.Arch. degree is required to produce a design thesis to demonstrate their contribution to the investigation of complex questions inherent in the discipline of architecture. In terms of faculty and facilities, the full resources of the College and University are available to the student in

support of the thesis effort. Faculty from other disciplines, normally outside of involvement in the environmental design process, are encouraged to participate. The thesis year should provide the opportunity for maturation of those skills and attitudes students have acquired. The thesis culminates in a final examination (defense), in which the student's architectural design work, research, body of scholarship, and professional inquiry are presented to the advisory committee and student colleagues, and in the thesis document, which should demonstrate each student's academic accomplishment and professional potential.

Research and Thesis (ARCH 5994) is offered every academic term and the credit is variable. M.Arch. students must complete a minimum of six total credit hours of Research and Thesis; a maximum of 10 total credit hours of Research and Thesis may count toward the 54 minimum graduate credit hours required on the Plan of Study (9 credits of Research & Thesis recommended). Additional guidance for thesis scheduling, review, and format is available from the Master of Architecture Program faculty. (Please see graduate program policy: Thesis and Graduation Policies, Procedures, and Guidelines.)

M.ARCH.3 - COMPREHENSIVE PROFESSIONAL STUDIES  
 TYPICAL PROGRAM OF STUDY

FIRST YEAR

Fall

- (9) ARCH 4715 - Qual. Des. Lab  
(Required)
- (3) ARCH 4705 - Qual. Des. Sem.  
(Required)
- (3) ARCH 5134 History - From  
Modernism, Post-modernism to  
De-construction (Required)
- (3) ESM 3704  
(Required)

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Spring

- (9) ARCH 4716 - Qual. Des. Lab  
(Required)
- (3) ARCH 4706 - Qual. Des. Sem.  
(Required)
- (3) ARCH 5134 History  
(Required)

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Summer (Optional) - The following courses are typically offered during the summer:

- ARCH 5755G, 5756G - Bldg. Environmental Systems
- ARCH 5775G, 5776G - Intermediate Bldg. Structures

SECOND YEAR

Fall

- (6) ARCH 5515 - Arch. &  
Systems Lab (Required)
- (3) ARCH 5565 - Bldg. Mat.  
& Construction (Required)
- (3) ARCH 5775G-Intermediate Bldg.  
Structures (Required)
- (3) ARCH 5755G - Bldg. Env.  
Systems (Required)

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Spring

- (6) ARCH 5516 - Arch. &  
Systems Lab (Required)
- (3) ARCH 5566 - Bldg. Mat.  
& Construction (Required)
- (3) ARCH 5776G-Intermediate Bldg.  
Structures (Required)
- (3) ARCH 5044G - Prof. Practice  
(Required)

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Summer

- (3) ARCH 5755 - Adv. Design Lab  
(Required)

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- (3) ARCH 5756 - Adv. Design Lab  
(Required)

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THIRD YEAR

Fall

- (6) ARCH 5994-Research & Thesis  
(Required)
- (3) ARCH 5705-Architecture.  
& Urbanism Seminar (Required)
- (3) ARCH 5134-Topics in Arch.

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Spring

- (3) ARCH 5994-Research & Thesis  
(Required)
- (3) ARCH 5044G - Prof. Practice  
(Required)
- (3) ARCH 5134-Topics in Arch.

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Total Qualifying Credit Hours (first year)

30 (min.)

Total Graduate Credit Hours

54 (min.)

Total Credit Hours Required for  
M.Arch.3 Program

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84 (min. required)

Last Modified: July 20, 2022