

## NC STATE UNIVERSITY SCHOOL OF ARCHITECTURE GRADUATE HANDBOOK 2025-2026

This handbook is complementary to the current NC State University Graduate Handbook: <https://grad.ncsu.edu/students/rules-and-regulations/handbook/>. The contents of the two documents provide answers to most of the questions you may have regarding graduate programs in architecture.

### MESSAGE FROM THE SCHOOL OF ARCHITECTURE

This Graduate Program Handbook is provided to assist you in planning your graduate studies. It includes program descriptions, policies, calendars and other pertinent information. Please read the handbook carefully and retain it throughout your graduate studies.

If you have any questions, please do not hesitate to contact Professor Traci Rose Rider, PhD, Director of Graduate Programs; School Head David Hill; or Professor Dana K. Gulling, Graduate Advisor.

### THE PHILOSOPHY AND OBJECTIVES OF GRADUATE EDUCATION

Formal education serves three different purposes: To prepare individuals for one or more roles in support of society's need for the preservation of its cultural heritage and its continuing evolution; to foster independence by developing the intellectual and creative resources of individuals; and to engender a sense of self-fulfillment. It is a happy but rare occurrence when all three purposes are achieved in any individual. Society defines the many potential roles that formal education may support, while the individual is most involved in fostering of intellectual independence – which is the central aim of formal education.

The conventional phases of formal education mark significant periods in the maturing of the intellect. Kindergarten and elementary schools emphasize fundamental skill development and nurture the growth of perceptual skills by which young minds may comprehend the world around them. In junior and senior high school education the complexity of the universe is revealed in broad and simplistic terms. It is here that the student begins to develop a capacity for logic and reasoning – and a sense of probable causality, that a series of events may result in an outcome. The undergraduate phase of university education hones the capacity for reasoning through exposure to increasingly specialized and complex areas of learning.

Throughout these phases of education, the student learns to move from the concrete to the abstract, from the general to the specific, from the literal to the figurative. Similarly, the teacher is asked to direct the process of education by exposing students to increasingly deeper levels of knowledge, and to reveal the subtle interdependencies among the various branches of learning.

Graduate education is the final stage in the development of intellectual independence. It is different from undergraduate education in that the student is encouraged to establish premises, to hypothesize, and to defend both the procedures and the conclusion of independent investigation. *The burden of proof for the verifiability of knowledge rests on the student, not on the faculty member.* Accordingly, the behavior of both teacher and student must change:

the teacher becomes an intelligent critic, responding to situations rather than initiating them, probing the reasoning as much as the result, guiding rather than instructing, while the student chooses the subject for investigation and develops a capacity for disciplined inquiry. It is a curious fact of life that, while moving from the general to the specific by probing deeper and deeper into the chosen field of specialization, the mind reveals its maturation by ultimately returning to a position of generality. It is as if the real reason for formal education were to reduce our complex universe to a set of simple propositions.

The previous statements represent ideals. Nevertheless, universities should not lose sight of the fundamental differences between graduate and undergraduate education: the former is basically inner- and self-directed, while the latter is outer- and other-directed. Since the academic posture of teacher and student is modified – indeed reversed – it is mandatory that the essence of graduate education be understood by all to achieve the desired objectives.

Finally, a new element of graduate education is gaining an expanded role, namely, post-baccalaureate lifelong learning. Two factors play a dominant role in this phenomenon: the first is the vast increase in knowledge, especially in science and technology, and the demands of society that individuals be abreast of recent developments to serve it better. The second is modern communications technology. There are fields of study today that did not exist a scant ten or even five years ago, and the phenomenon is gaining momentum rather than losing it: ten years from today our universities will be teaching topics that have not yet been discovered. Add to this the fact that truly independent study is more feasible today than it has ever been in human history, thanks to satellite and network communications. It is not that the role of the teacher as a "mentor" is changing; rather, it is that there may be no "teacher" in the traditional sense. The "classroom" is now the whole wide world, and a teacher's message may be repeated at will until it is fully understood by the student.

All this reinforces the need, especially in graduate education, to teach the student "to learn how to learn." In the future graduate education is, in a real sense, a phase that extends "for the rest of one's life" beyond the baccalaureate degree. The implications of this reality on graduate education are profound and diverse, changing our concepts of campus life, teacher-student relationships, and the very meaning of "going to graduate school."

## **A | ORGANIZATION OF THE COLLEGE AND SCHOOL**

The College of Design is one of 12 major academic divisions, schools, and colleges, which comprise North Carolina State University. It is a comprehensive design school with undergraduate degree programs in Graphic Design, Industrial Design, and Art and Design, in addition to Architecture. Graduate degrees are offered in Landscape Architecture, Art and Design, Graphic Design, Industrial Design, and Architecture. The College also offers a Ph.D. in Design and a Doctor of Design.

The College of Design is headed administratively by a Dean, who is supported by an Executive Committee composed by the Heads of each academic and administrative unit in the College of Design, and Associate Deans. A core administrative and technical staff is responsible to the Dean's office as well.

The School of Architecture is administered by a Head. The College of Design Student Services Office provides support to the Director of Graduate Programs (DGP) and coordinates graduate admissions. The College Graduate Services Coordinator (GSC) is responsible for student records, and all communications, informal and official, between graduate students, the School of Architecture, and the Graduate School. In addition, the School Director of Graduate Programs (DGP) is responsible for administering the ARC graduate programs and for coordinating between the NCSU Graduate

School and the School of Architecture; final decisions on all such matters, however, remain the responsibility of the School Head.

The Graduate Advisor advises all MArch students, except for those who choose to complete Final Project. Final Project students will work with the Graduate Services Coordinator to get their advisor changed from the Graduate Advisor to their Final Project Chair. The MAAS Program Coordinator (MPC) coordinates the MAAS program, helping to align MAAS applicants with their advisors. For MAAS students, their faculty advisor with whom they are working fulfills the role of academic advisor. For ARC Graduate Students interested in earning a certificate, reach out to the appropriate certificate coordinator for certificate requirements. For MArch students interested in participation in our Integrated Path to Architectural Licensure (IPAL), reach out to that IPAL Coordinator.

Faculty administrative positions in Architecture described above are currently held by the following:

|                               |                  |
|-------------------------------|------------------|
| Head                          | David Hill       |
| Director of Graduate Programs | Traci Rose Rider |

Staff positions in the College that support the graduate programs:

|                                           |                                                                        |
|-------------------------------------------|------------------------------------------------------------------------|
| COD Graduate Student Services Coordinator | TBD, Tameka Whitaker, Assistant Dean for Academic and Student Services |
| COD Scheduling Officer                    | Ellen Hammond                                                          |

Graduate Advising and Coordinator Faculty:

|                                                     |                 |
|-----------------------------------------------------|-----------------|
| MArch Graduate Advisor                              | Dana K. Gulling |
| MAAS Program Coordinator                            | Tom Barrie      |
| Integrated Path to Architectural Licensure (IPAL)   | Jianxin Hu      |
| City Design Certificate                             | Donghwan Moon   |
| Energy & Technology Certificate                     | Jianxin Hu      |
| Public Interest Design Certificate                  | Donghwan Moon   |
| Concentration in History and Theory of Architecture | Burak Erdim     |

Today the School of Architecture faculty consists of 16 full-time positions, including the Head. The School also employs numerous part-time faculty as Professors of Practice, who typically are engaged to teach one course or studio per semester. The faculty is distinguished with numerous teaching, research, and professional design awards. They have authored influential books, contributed articles to professional journals, have served on editorial boards, on boards of national professional organizations, and have chaired national architecture or architectural education committees.

## **B | THE SCHOOL OF ARCHITECTURE GRADUATE CURRICULA**

The School of Architecture offers two graduate degrees: The Master of Architecture (MArch) and the Master of Advanced Architectural Studies (MAAS). The MArch degree is a professional, studio-based degree and is accredited by the National Architecture Accrediting Board (NAAB). The MArch program prepares graduates for leadership roles in architectural practices, and graduates of our program can take their architectural registration exam (ARE) in the United States. The MAAS is an innovative research-based program for committed, self-directed students who have earned a professional degree in architecture, or a degree in a related discipline. The MAAS program provides opportunities for specialized study in leading-edge areas of the built environment, and a platform to explore solutions to the crucial issues of the 21<sup>st</sup> century. It is not NAAB-accredited and does not qualify graduates for the ARE.

## B.1| MASTER OF ARCHITECTURE PROGRAM REQUIREMENTS

The School of Architecture offers two tracks to the Master of Architecture degree.

Track One: The School of Architecture's Master of Architecture Track 1 program is essentially the final component of a 4+2 year program. It is for those students with a preprofessional, undergraduate degree from a university or school with a National Architecture Accrediting Board (NAAB) accredited Master of Architecture program. Our Track 1 students come from across the United States, as well as from international programs.

Generally, this track is completed in two years of full-time study. Accredited by NAAB, it requires a minimum of 48 credit hours, broken down as such:

|                                                                         |            |
|-------------------------------------------------------------------------|------------|
| Architecture Graduate Design Studios (ARC 500, (3) ARC 503 @ 6 CH each) | 24 credits |
| Architecture Graduate Electives, including ARC 561 (6 @ 3CH each)       | 18 credits |
| Architecture or College Graduate Electives (2 @ 3 CH each)              | 6 credits  |

Track Three: This track is for students without a pre-professional undergraduate degree in architecture. Track 3 normally requires a Summer Session and three semesters of preparatory work before entering the final two years of graduate study. See the following pages for prerequisite courses. The final two years are the same as those described for Track One students. This degree is accredited by NAAB, with a minimum of 96 credit hours unless some prerequisites are waived.

### B.1.1 | OBJECTIVES

The Master of Architecture is intended as preparation for students to assume responsible roles in the profession of architecture. Most recent graduates have chosen to enter private architectural practice, undertaking the rich professional challenges it offers. While acknowledging the primacy of the practice orientation, the Master of Architecture program also prepares students for alternative careers in architecture. Generally, within the profession, the Master of Architecture is considered as the terminal degree.

The Master of Architecture as a first professional degree is fully accredited by the National Architectural Accrediting Board (NAAB). As such, it satisfies educational requirements for licensing and certification by the various states and the National Council of Architectural Registration Boards (NCARB).

#### B.1.1.a | From NAAB:

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 an 8-year, 4-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 an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

NC State University, College of Design, School of Architecture offers the following NAAB-accredited degree programs:

- B.Arch (pre-professional degree + 30 graduate credits)
- M.Arch Track 1 (pre-professional degree + 48 graduate credits)
- M.Arch Track 3 (non-architecture pre-professional degree + 96 credits)

### B.1.2 | MASTER OF ARCHITECTURE (TRACK 1)

Our Track 1 is for students with a four-year undergraduate pre-professional degree in architecture (BEDA degree or equivalent). This degree is NAAB-accredited and can be used toward architecture registration in the United States.

#### FIRST YEAR

| <i><b>Fall Semester</b></i>                            | <i><b>Cr.</b></i> | <i><b>Spring Semester</b></i>                               | <i><b>Cr.</b></i> |
|--------------------------------------------------------|-------------------|-------------------------------------------------------------|-------------------|
| ARC 500 Arch. Design: Professional Studio <sup>1</sup> | 6                 | ARC 503 Advanced Architectural Design Studio <sup>1,2</sup> | 6                 |
| Architecture Elective <sup>3</sup>                     | 3                 | ARC 564: Architectural Design Development                   | 3                 |
| Architecture Elective <sup>3</sup>                     | 3                 | Architecture Elective <sup>3</sup>                          | 3                 |
| <b>15</b>                                              |                   | <b>15</b>                                                   |                   |

#### SECOND YEAR

| <i><b>Fall Semester</b></i>                                                       | <i><b>Cr.</b></i> | <i><b>Spring Semester</b></i>                                                                          | <i><b>Cr.</b></i> |
|-----------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------|-------------------|
| ARC 503 Advanced Architectural Design Studio <sup>2</sup>                         | 6                 | ARC 503 Advanced Architectural Design Studio <sup>2</sup> OR ARC 598 Final Project Studio <sup>3</sup> | 6                 |
| Architecture Elective <sup>3</sup> OR ARC 697 Final Project Research <sup>4</sup> | 3                 | Architecture Elective <sup>3</sup>                                                                     | 3                 |
| Architecture Elective <sup>3</sup>                                                | 3                 | Architecture Elective <sup>3</sup>                                                                     | 3                 |
| <b>15</b>                                                                         |                   | <b>15</b>                                                                                              |                   |

1. If approved by the DGP, students may enroll in ARC 503 in their first semester but must take ARC 500 by their second semester.
2. The studio assignment will be determined by the School of Architecture prior to the semester start.
3. Architecture Electives: 24 credits must include ARC 561 Professional Practice and may include 6 credits taken from 400 level or above courses offered within the College of Design with LAR, ID, GD, A+D, D, or DDN prefixes. ARC courses must be at the 500 level or above. ARC 590-032, ARC 590-014, and ARC 590-041 do not qualify as ARC elective courses.
4. If the faculty approves the student to undertake a Final Project, the student must take ARC 697 Final Project Research as 3 credits of Architecture Elective and will substitute ARC 598 Final Project Studio for the ARC 503 Studio in the last semester.

### B.1.3 | MASTER OF ARCHITECTURE (TRACK 3)

Our Track 3 is for students without a pre-professional or professional degree in architecture. This degree is NAAB-accredited and can be used toward architecture registration in the United States

#### FIRST YEAR

| <i><b>Fall Semester</b></i>             | <i><b>Cr.</b></i> | <i><b>Spring Semester</b></i>                  | <i><b>Cr.</b></i> |
|-----------------------------------------|-------------------|------------------------------------------------|-------------------|
| ARC 404 Arch. Design Fundamentals: Form | 6                 | ARC 403 Arch. Design Fundamentals: Environment | 6                 |
| ARC 450 Architectural Drawing           | 3                 | ARC 451 Digital Representation                 | 3                 |
| ARC 211 Natural Systems                 | 3                 | ARC 232 Structures and Materials               | 3                 |
| ARC 241 Intro. To World Architecture    | 3                 | ARC 242 History of Western Architecture        | 3                 |
| <b>15</b>                               |                   | <b>15</b>                                      |                   |

## SECOND YEAR

| <i>Fall Semester</i>                                   | <i>Cr.</i> |
|--------------------------------------------------------|------------|
| ARC 405 Arch. Design Fundamentals: Building Technology | 6          |
| ARC 331 Architectural Structures I                     | 3          |
| ARC 432 Arch. Construction Systems                     | 3          |
| ARC 441 History of Contemporary Architecture           | 3          |
|                                                        | <b>15</b>  |

| <i>Spring Semester</i>                    | <i>Cr.</i> |
|-------------------------------------------|------------|
| ARC 500 Arch. Design: Professional Studio | 6          |
| ARC 332 Architectural Structures II       | 3          |
| ARC 414 Environmental Control Systems     | 3          |
| Architecture Elective <sup>1</sup>        | 3          |
|                                           | <b>15</b>  |

## THIRD YEAR

| <i>Fall Semester</i>                                      | <i>Cr.</i> |
|-----------------------------------------------------------|------------|
| ARC 503 Advanced Architectural Design Studio <sup>3</sup> | 6          |
| ARC 564: Architectural Design Development                 | 3          |
| Architecture Elective <sup>1</sup>                        | 3          |
|                                                           | <b>12</b>  |

| <i>Spring Semester</i>                                                            | <i>Cr.</i> |
|-----------------------------------------------------------------------------------|------------|
| ARC 503 Advanced Architectural Design Studio <sup>3</sup>                         | 6          |
| Architecture Elective <sup>1</sup> OR ARC 697 Final Project Research <sup>2</sup> | 3          |
| Architecture Elective <sup>1</sup>                                                | 3          |
|                                                                                   | <b>12</b>  |

## FOURTH YEAR

| <i>Fall Semester</i>                                                                                   | <i>Cr.</i> |
|--------------------------------------------------------------------------------------------------------|------------|
| ARC 503 Advanced Architectural Design Studio <sup>3</sup> OR ARC 598 Final Project Studio <sup>2</sup> | 6          |
| Architecture Elective <sup>1</sup>                                                                     | 3          |
| Architecture Elective <sup>1</sup>                                                                     | 3          |
|                                                                                                        | <b>12</b>  |

<sup>1</sup> Architecture Electives: 21 credits must include ARC 561 Professional Practice and may include 6 credits taken from 400 level or above courses offered within the College of Design with LAR, ID, GD, A+D, D, or DDN prefixes. ARC courses must be at the 500 level or above. ARC 590-032, ARC 590-014, and ARC 590-41 do not qualify as ARC elective courses.

<sup>2</sup> If the faculty approves the student to undertake a Final Project, the student must take ARC 697 Final Project Research as 3 credits of Architecture Elective and will substitute ARC 598 Final Project Studio for the ARC 503 Studio in the last semester.

<sup>3</sup> The studio assignment will be determined by the School of Architecture prior to the semester start.

### B.1.4 | PREREQUISITE COURSES FOR THE MASTER OF ARCHITECTURE DEGREE

The Track 1 program is designed for students with a preparatory education similar to NC State Bachelor of Environmental Design in Architecture (BEDA). Track 1 students should have completed all the prerequisite courses (see list below) during their undergraduate education or should schedule them as additional requirements during their graduate program. If additional courses are required, then the Director of Graduate Programs (DGP) will alert the admitted students. We review accepted students' transcripts and portfolios to ensure that curricula are similar. See *Appendix E | Pre-Requisite Course Checklist*. If further clarification is required, then we may request additional documents from the student.

Track 3 students are expected to complete these courses and a series of three topical ARC 400-level studios (ARC

403, 404, 405) to satisfy the professional prerequisite requirements. An evaluation will determine if credit for any requirements will be allowed for previous course work. For course descriptions for all prerequisite Architecture courses, see the Architecture listings under Registration and Records on the NCSU website. <https://www.acs.ncsu.edu/php/coursecat/directory.php#course-search-results>

Track 3 students are expected to be registered full time during their first four semesters so that they take courses in the given sequence. If a Track 3 student cannot be registered full time or cannot take their courses in sequence, then they must obtain permission from the Graduate Advisor and Director of Graduate Programs before the semesters in question.

Following is a list of courses that are prerequisites for the graduate program.

Note: Since the following courses are required for the Master of Architecture degree, they must be taken for a grade. A student must earn a C- or better grade in the course.

- ARC 211 Natural Systems and Architecture
- ARC 232 Structures and Materials
- ARC 241 Introduction to World Architecture
- ARC 242 History of Western Architecture (Preq. ARC 241)
- ARC 251/451 Digital Representation
- ARC 331 Architectural Structures I (Preq. ARC 232)
- ARC 332 Architectural Structures II (Preq. ARC 331)
- ARC 590-14 (i.e. ARC 414) Environmental Controls Systems (Preq. ARC 211)
- ARC 590-32 (i.e. ARC 432) Architectural Construction Systems (Preq. ARC 232)
- ARC 590-41 (i.e. ARC 441) History of Contemporary Architecture (Preq. ARC 242)
- ARC 450 Architectural Drawing
- ARC 403 Architectural Design Fundamentals: Environment (Co-req. ARC 211)
- ARC 404 Architectural Design Fundamentals: Form (Preq. ARC 403; Co-req. ARC 251)
- ARC 405 Architectural Design Fundamentals: Technology (Preq. ARC 404; Co-req. ARC 331 and 432)

### **B.1.5 | MASTER OF ARCHITECTURE REQUIRED COURSES**

The following courses are required of students in the Tracks except as noted.

- ARC 500 Architectural Design – Professional Studio
- ARC 503 Advanced Architectural Design (Series)
- ARC 561 Practice of Architecture (Preq. 501/500)
- ARC 564 Architectural Design Development
- ARC 697 Final Project Research in Architecture (required only if pursuing a Final Project option)
- ARC 598 Final Project Studio in Architecture (required only if pursuing a Final Project option)

### **B.2 | MASTER OF ADVANCED ARCHITECTURAL STUDIES (MAAS)**

MAAS is a flexible, innovative, and individualized program that provides students with opportunities to engage in specialized studies. Students choose a research subject and topic as part of their application and work closely with their faculty advisor to design a self-directed program and work with faculty who are experts in the field. Student-led opportunities provide settings to share current research.

Generally, this track is completed in two or three semesters of full-time study. Minimum 30 credit hours. However, students can accelerate completion by applying up to 12 credit hours of graduate electives or studios appropriate to a research area, or other graduate electives from design-related programs, as approved by their faculty advisor after admittance into the program.

|                                        |              |
|----------------------------------------|--------------|
| Directed Research                      | 3-6 credits  |
| Electives                              | 9-12 credits |
| Advanced Architectural Studies Project | 15 credits   |

## B.2.1 | MAAS CURRICULUM

### FIRST YEAR

| <i><b>Fall Semester</b></i>            | <i><b>Cr.</b></i> | <i><b>Spring Semester</b></i>                        | <i><b>Cr.</b></i> |
|----------------------------------------|-------------------|------------------------------------------------------|-------------------|
| ARC 597 Advanced Architectural Studies | 3                 | ARC 597 Advanced Architectural Studies               | 3                 |
| ARC 682 Directed Research              | 3                 | ARC 682 Directed Research or Elective <sup>1,2</sup> | 3                 |
| Elective <sup>1, 2</sup>               | 3                 | Elective <sup>1, 2</sup>                             | 3                 |
| Elective <sup>1, 2</sup>               | 3                 |                                                      | <b>9</b>          |
|                                        | <b>12</b>         |                                                      |                   |

### SECOND YEAR

| <i><b>Fall Semester</b></i>            | <i><b>Cr.</b></i> |
|----------------------------------------|-------------------|
| ARC 597 Advanced Architectural Studies | 9                 |
|                                        | <b>9</b>          |

<sup>1</sup> Electives chosen are to be in the student's area of focus and to be selected in consultation with the MAAS student's faculty advisor. ARC Electives must be 500-level and higher. 6CH of Electives may be ARC 503 and no electives can include ARC 590-14, ARC 590-32, or ARC 590-41.

<sup>2</sup> No more than six credit hours (CH) of 400-level undergraduate, non-ARC courses may be counted toward the degree (<http://catalog.ncsu.edu/graduate/graduate-handbook/minimum-requirements/>)

## B.2.2 | MAAS REQUIRED COURSES

### ARC 597 Advanced Architectural Studies Project

Investigations of specific topic and subjects, as defined by student in consultation with student's advisor, and approved and supervised by advisor. Includes research methods. Restricted to students enrolled in the Master of Architecture Advanced Architectural Studies program. Typically offered in Fall, Spring, and Summer.

### ARC 682 Directed Research

Students work directly with their advisor in areas of research as defined by advisor. Includes research methods. Restricted to students enrolled in the Master of Advanced Architectural Studies program. Typically offered in Fall, Spring, and Summer

## B.3 | GENERAL ARCHITECTURE GRADUATE ELECTIVES (sample course listing)

The following courses may be taken to satisfy the Architecture graduate electives requirement for the MArch Tracks 1 and 3 and can be used toward the MAAS degree. Each course is three credits. *Note: Courses are not offered every*

#### ARC 520 Sustainable Architecture

This survey course provides students with a solid knowledge base in the numerous aspects of sustainable design touching not only upon strategies, but also various philosophies behind sustainability and the green building movement. This course examines the impact of the built environment on natural systems and questions what it truly means to build responsibly. Lectures, discussions, guest speakers, and field trips create a critical foundation for green building considerations to be references in design at a variety of scales.

#### ARC 521 Daylighting and Passive Energy Systems for Architecture

An investigation of building energy systems and simulation techniques with emphases on thermal envelope, solar geometry, daylighting, passive heating & cooling, and building systems integration. The theoretical considerations will be accompanied by hands-on exercises using various simulation tools.

#### ARC 522 Building Energy Efficiency & Renewable Energy

This course will discuss and develop strategies for the design of sustainable buildings. The two primary topics addressed are: 1) energy efficiency and 2) renewable energy. The students will learn and discuss ways to improve energy efficiency in buildings. The renewable energy technologies, such as solar and geothermal, are explored to discuss the applicability of those in the building design.

#### ARC 523 Building Energy Modeling and Simulation (Prereq ARC 414)

This course deals with the fundamentals of building sciences in terms of energy systems. Energy modeling and simulation technologies are used to predict and analyze the energy performance of buildings. The students calculate the energy consumption of heating, cooling, lighting, and equipment by hand to understand the energy & thermal behavior of buildings and then compare and analyze them with those calculated by energy modeling and simulation programs.

#### ARC 524 Building Energy Optimization (Prereq ARC 523)

This course introduces energy optimization technologies in buildings using computer simulation. The EnergyPlus program, a whole-building computational energy simulation tool developed by USDOE, is used. The maximum energy savings potential of Energy Efficiency Measures (EEMs) are identified and implemented for the energy optimization process. Students obtain a great deal of information about a building's potential for energy savings, well before the first brick is even laid.

#### ARC 525 Sustainability Over the Life of a Building

Focuses on strategies and metrics for "greening" existing buildings. Sustainability over the Life of a Building will explore the criteria and documentation needed to certify a building at NC State in the LEED for Existing Buildings: Operations and Maintenance (EBOM) rating system. This course will emphasize the importance of interdisciplinary work while working toward sustainability goals. Over the course of the semester, students will research various criteria and thresholds for the LEED EBOM system. Through this in-depth process, students will synthesize core knowledge about LEED credits to better understand opportunities for strategies in green buildings. Over the course of the semester, students will research various criteria in-depth which are needed for LEED Existing Building Certification, not only becoming familiar with the rating system itself, but also the foundation for each of the addressed LEED credits, as well as context for decisions made in the realm of green buildings.

#### ARC 526 Health and Sustainability in the Built Environment

Explores opportunities in the design and aligned fields for facilitating higher sustainability and health targets, associated thresholds, and certification achievements in the built environment. Building rating systems are reviewed that address categories such as social equity, carbon neutrality, material toxicity, nourishment, fitness, mind, justness, and more. Reaching beyond the standards of current green building practice and public policy, the class will explore methods and case studies using cutting-edge building certification frameworks to target carbon neutral, net-zero, and health-promotive design. Student teams will be working on specific projects with professional firms for their final projects.

#### ARC 530 Tectonics and Craft

Studies of construction and material form in architecture. Case studies of select examples of contemporary architecture that exemplify the technique and craft of modern construction. Analysis of functional, tectonic, and experiential aspects of building methods within the context of economics and culture. Examination of assembly as a determinant of building form.

#### ARC 534 Design of Architectural Details

Students will be introduced to a set of detail patterns that are elemental fragments of natural phenomena present in all successful building details. Students will use these patterns when analyzing and existing details, judging the quality of manufactured building components, diagnosing problems in existing buildings, and designing details and reviewing one's own work.

#### ARC 535 Experiments in Architecture Prototypes

The class will take a comparative look at historical and current practices that design[ed] prototypes as a critical part of their work. Students will research designers who have engaged in prototyping as a method of making as well as architects who have modeled conceptual prototypes as a means of addressing large scale social and technical issues. The seminar will explore various scales of prototypes including furniture, houses, public buildings, and components of regional plans.

#### ARC 536 Materials for Design

Contemporary buildings that have insightfully integrated design intention and materials are analyzed using the case study method. Each student uses an iterative analytical process to probe deeply and specifically to find each building's key lessons regarding materials. Key drawings and photographs will be graphically presented, with a narrative summarizing findings regarding the project's general design intentions and its technical embodiment.

#### ARC 537 Digital Materials Translations

(Prereqs: ARC 251 or ARC 451 or equivalent, and ARC 232 or equivalent)

This seminar combines architectural material research with instruction in advanced digital design software. Students will examine specific materials to determine attributes, and then use parametric, NURBS-based software, and CNC machinery to propose new material applications. The course is limited to College of Design students unless instructors grant permission.

#### ARC 538 Manufacturing Architecture

(Prereq: ARC 432)

Focuses on customized repetitive manufacturing for architecture components. Specifically includes repetitive processes that make repeated uses of tooling (e.g. molds, patterns, or jigs) to form components. We will investigate repetitive manufacturing processes and architectural case studies.

#### ARC 540 Architectural Theory

This course provides an introduction to the major themes and associated figures of architectural theory. It focuses on 20th and 21st century texts with a particular emphasis on historicism, phenomenology, structuralism and post-structuralism. Each week there is assigned reading from a range of texts, including extra-disciplinary writers. Lectures and discussions serve to identify principal themes, connect to contemporary issues, and establish relevancy to architectural design.

#### ARC 541 Architecture, Culture, and Meaning

This course focuses on architecture as a cultural artifact and provides an overview of the interrelationship of architectural form, organization, symbolism, use and meaning. A broad range of examples from a variety of cultures, religions, and historical periods are covered (including "non-Western"), illustrated by detailed case studies. Syncretic, holistic and homological approaches to understanding the meaning and significance of architecture are emphasized. Phenomenological and hermeneutical methods of interpretation are introduced and pertinent philosophical traditions discussed.

#### ARC 542 Sacred Architecture

This course focuses on the meaning and cultural significance of sacred architecture, including its environmental and socio-political contexts, and doctrinal and liturgical influences. The course is structured according to the world's principal faiths and presented comparatively and holistically. There is a particular emphasis on the communicative roles of architecture and the symbolism and ritual use of sacred places. Contemporary theoretical methodologies are introduced and applied as means establish relevancy to contemporary issues and architectural design. Restricted to graduate students.

#### ARC 543 Analysis of Precedent

Investigation of architectural elements, relationships, and ordering ideas through comparative graphic analysis of buildings designed by architects. Emphasis on buildings as physical artifacts.

#### ARC 544 American City Planning History

*(Prereq: ARC 241 and ARC 242 and ARC 441; or permission of instructor)*

An examination of the history of American cities, their founding, plans, and development with emphasis on the colonial era to the late 19th century. Broad study of the larger historical trends in city planning balanced by readings focused on major cities (New York, Chicago, Los Angeles) and smaller ones (Savannah, New Orleans). Major issues include street patterns, parks, and public buildings and spaces; and the roles of government and private citizen groups.

#### ARC 545 Methods of Interpretation in Architectural History

This seminar surveys the materials, methods, and texts of architectural history as an analytical discipline of the built environment. A broad selection of readings will trace the evolution of the discipline and will position architectural history in relation to such fields as architecture, art history, urban and social history, anthropology, literature, cultural studies, urban planning, and architectural theory. The course is restricted to graduate

students and serves as one of the alternate required courses for the Concentration in the History and Theory of Architecture.

#### ARC 546 Theory of Building Types

Theoretical implications and practical applications in architecture. Analysis and documentation of selected building types in their historical evolution. Graphic identification of type characteristics.

#### ARC 548 Vernacular Architecture

Readings in theories of vernacular architecture. Case studies of selected examples of vernacular architecture of the world: architectural analysis of utilitarian, tectonic, and perceptual aspects of buildings and urban fabrics against the background of place and culture. Examination of influences of various vernacular traditions on contemporary practice

#### ARC 562 Legal Issues in Architecture

The main principles of law affecting the conduct of the profession of architecture as it is influenced by contracts, torts, agency, property, and environmental restrictions.

#### ARC 563 Public Interest Design Seminar; Case Studies and Current Issues

This course evaluates and appraises design in the public interest as a critical and growing element of design disciplines. We explore how design can positively contribute to the social, economic, and environmental well-being of US and global communities. We study current innovations and review successful examples of projects and practice. In addition to lectures by the professor, presentations are made by professionals and experts in public interest design.

#### ARC 564 Architectural Design Development

*(Prereq: ARC 500 or ARC 501; Master of Architecture or Bachelor of Architecture students only)*

Focuses on the Design Development phase of architectural design. Beginning with a schematic building design from ARC 500 or ARC 501, students develop and integrate technical and life-safety systems, assess and refine design components to achieve optimal building performance, and refine projects to respond to regulations and user requirements.

#### ARC 570 Anatomy of the City

A morphological investigation of cities throughout urban history, with emphasis on formal principles of spatial organization. Part one: examination of the descriptive properties of cities in terms of interdisciplinary concepts and principles. Part two: examination of the organizational characteristics of urban space.

#### ARC 571 The Urban House

The course is intended to reveal the interrelationships between the form of housing and the characteristics of cities. Reference is made to the physical, technological, social and economic factors which influence housing design, as well as to historic and cultural developments.

#### ARC 572 Regional Infrastructures

This seminar provides students with a solid knowledge base about current urban issues and design theory surrounding the contemporary networked metropolis. Through lectures, discussions, and workshops the course examines how infrastructural systems might be expanded in order to catalyze additional environmental,

social, and economic processes. Students research specific infrastructural systems (conducting food, water, or energy) at a systems-defined regional scale to better understand the characteristics of 21st century American cities and speculate on new opportunities for architects and landscape architects to practice.

#### ARC 574 Place and Place Making

Examination of the definitions, concepts and emergent research findings useful in explaining the human sense of place through seminar-lecture course. Particular emphasis upon those physical aspects and relationships influencing this sense of place and affording some designer control.

#### ARC 576 Community Design

Processes through which citizens shape and manage built environment. Strategic planning, visioning process, community action, and mediation will be discussed and illustrated with case study examples from architecture, landscape architecture and planning. Analysis and assessment from case studies of participation techniques such as charrette, study circles, and visual appraisal.

#### ARC 577 Sustainable Communities

Historical precedents of sustainable communities. Examination of the Garden City, the New Towns Movement, and the New Urbanism. Comparison of sustainable communities to urban visions of Wright, Corbusier, Soleri and others. Virtual cities and digital communities.

#### ARC 589 Architectural Travel Study II

Independent study while traveling. Submission of sketchbook/journal and paper upon return. Research on topic of concentration and approval of itinerary in advance is required. Graphic documentation and critical evaluation of buildings and urban spaces. Course is required of all participants in Department of Architecture Foreign Exchange and Summer Abroad Programs. Restricted to School approval.

#### ARC 590 Special Topics in Architecture\*

Topics of current interest offered by faculty in the School of Architecture. Subjects offered under this number are normally used to test and develop new courses.

\*Note that ARC 590-14, 590-32, and 590-41 are required courses for the Track 3 and select Track 1 students and will not be considered as electives.

#### ARC 630 Independent Study in Architecture

Special problems and projects in various aspects of architecture developed under the direction of an architecture faculty member on a tutorial basis.

#### ARC 676 Special Seminar in Architecture

Seminars on subjects of current interest in design which are presented by persons not part of the regular faculty. The titles of seminars offered under this number change each semester depending upon the visiting faculty.

## **C | POLICIES AND PROCEDURES FOR ARCHITECTURE GRADUATE STUDENTS**

### **C.1| ADMINISTRATION**

The architecture graduate programs will be administered as follows:

- 1 Each student will be assigned an academic advisor at the time of enrollment. For MArch students this will be the Graduate Advisor, unless the student forms a Graduate Advisory Committee as part of Final Project. For those students pursuing Final Project, the student's Final Project Graduate Advisory Committee Chair becomes that student's academic advisor. See "Graduate Advisory Committee" following for details regarding this Committee. For MAAS students this will be their supervising faculty.
- 2 The Degree Audit will need to be completed. For the MArch degree, this includes all the undergraduate courses, and they must be met or waived by the School's DGP.
- 3 There will be no final oral examination for Final Project or Advanced Architectural Studies Project students.
- 4 Normal admission, residence, transfer credit, and performance requirements of the Graduate School will apply, except as superseded by more stringent requirements of the School of Architecture.
- 5 Students must submit a request to graduate within the first two weeks of their final semester online through MyPack Portal.

### C.2 | CONTINUOUS ENROLLMENT, NORMAL PROGRESS

All ARC graduate students are required by the University to be continuously enrolled and to make normal progress towards their degrees. Normal progress is defined as enrollment in 9 or more credit hours, with 12 credit hours representing a typical schedule. Enrollment in fewer than 9 credit hours requires prior written approval by the Director of Graduate Programs and the NCSU Graduate School.

See the University Graduate Student Handbook for important policies on continuous registration, leaves of absence, time limits to complete degree, and GPA requirements, and termination: <http://www.ncsu.edu/grad/handbook/table-of-contents.html>

### C.3 | REGISTRATION

All continuing ARC graduate students are required to register for each succeeding semester during the University's normal registration period. Students who fail to register and who attempt to register late may be assessed a fee by the University. They will be admitted to architecture classes, including design studio, on a space-available basis only and will be placed in the lowest priority for studio selection where a lottery is involved.

### C.4 | APPROVALS FOR REDUCED SCHEDULES, LEAVES OF ABSENCE

Students in good academic standing who wish to take a temporary leave of absence (LOA) or to reduce their schedule below 9 credit hours in a semester must request and receive written approval from the Director of Graduate Programs prior to the term involved. Approvals will be given for such reasons as illness or other disabling conditions, financial difficulties, or other legitimate purposes, but will not be granted for insubstantial or inappropriate justification. See the University Graduate Student Handbook for 'Continuous Enrollment' requirements.

### C.5 | MArch WAIVER OF ACADEMIC REQUIREMENT FOR PREREQUISITE COURSE

After being accepted, MArch students may initiate a waiver review of a prerequisite 3CH course by submitting a written request via email and supporting evidence of previous coursework completed (e.g. syllabus, course schedule, homework assignments) to the Director of Graduate Programs. The DGP will review the student's file and consult with the professors that cover that course's content. If the request is supported and the content overlaps sufficiently with

our coursework, the course will be waived.

#### **C.5.1 | For Studio:** (ARC 403, 404 or 405)

- 1 It should be recognized that this is an exceptional procedure and requires clear and compelling justification. Substantial education in architecture will normally be a prerequisite for such consideration. The student is expected to demonstrate previous knowledge, study and experience comparable to the content of the studio or studios to be waived. The student's standing relative to prerequisite courses that parallel the studios should also be considered.
- 2 The initial placement of the incoming MArch students in the prerequisite studio sequence shall be determined by the Graduate Admissions Committee prior to enrollment in the Program. The Admissions Committee should make this determination based upon a review of academic records, portfolio, and other evidence they consider relevant. One or more prerequisite studios may be waived at this time.
  - a. After being enrolled, a MArch student may initiate a waiver review of any prerequisite studio by submitting a written request to via email to the Director of Graduate Programs, who will consult with the School Head.
  - b. The School Head will review the student's file and consult with the student's committee and professors. If the request seems reasonably supported, a formal review will be conducted.
  - c. The review shall consist of an interview and examination of studio work. The review will be conducted by a faculty group appointed by the Director of Graduate Programs with the School Head present. A majority vote of the group, with the School Head concurring, shall decide the request.

#### **C.6 | MArch FINAL PROJECT AND ADVISORY COMMITTEE**

The Final Project for the Master of Architecture provides an opportunity for an in-depth investigation of an architectural idea and the embodiment of that idea in the design of one or more buildings. It is concerned with both theory and architectural design. The Final Project is to be executed in two phases over at least two semesters (generally the last two semesters of the curriculum). The idea is to be fully investigated and can be drawn from architectural conventions and traditions or it may be the result of some unique personal insight. The architectural project is the design of a building or a complex of buildings that serve as an appropriate vehicle for the exploration and demonstration of the idea. This student-initiated endeavor is carried out under the supervision of a Faculty Advisory Committee composed of two tenured or tenure-track Architecture Faculty members (one of whom is to be the chair of the committee). Other faculty members from either the Architecture Faculty or from other appropriate disciplines may be added as agreed to by the Committee Chair.

The first phase of the Final Project is carried out under ARC 697 – Final Project Research and primarily under the supervision of the committee chair with secondary involvement from the other committee members. It is mandatory to schedule ARC 697: Final Project Research in the semester prior to undertaking the Final Project. During this phase of the study the student is to thoroughly and comprehensively investigate the theory, idea, or architectural proposition set forth in the proposal. The culmination of this phase is a document that clearly states the theoretical basis that is to be investigated, that demonstrates knowledge and critical analysis of relevant literature by others about the subject, and that examines the position taken by others through analysis of relevant precedents. The document is the beginning of and theoretical basis for the subsequent semester's design work. Thus, the document is to include an articulation and analysis of the architectural program including both qualitative and quantitative intentions of the project that will integrate and demonstrate the theory, idea, or architectural proposition, as well as the documentation and analysis of

the site and context to be used for the project.

ARC 697 must be successfully completed by the end of the semester prior to enrolling in ARC 598 Final Project Studio. Successful completion means a passing grade has been recorded (IN is not a passing grade). ARC 697 is graded on a credit/no credit basis.

The second phase of the Final Project is ARC 598 – Final Project Studio. ARC 598 is to be taken in the final semester - a letter grade will be given. The committee chair is again the primary supervisor of this activity, but the other committee members are also to be actively engaged in the execution of the design work. The studio is to be structured by the student so that the design project further investigates, tests, and demonstrates the theoretical basis, idea, or architectural proposition. Since the intention of the design project is that of a vehicle, the architectural issues investigated should be more inclusive than the building itself and the project must address the needs of constituents other than the student.

The culmination of the Final Project is a public presentation and demonstration of the theoretical basis investigated through the written document and the architectural project.

#### C.6.1 | Administration of Final Project:

Track One and Track three students who have been permitted to pursue a Final Project, will have a Graduate Advisory Committee. A Graduate Committee at a minimum has two architecture faculty members but may exceed that number, with there typically being three committee members. The Chair of the advisory committee must be a full-time member of the architecture faculty and have full graduate standing. At least one other committee member must be a member of the architecture graduate faculty. It is the expectation that all committee members be present at regular meetings.

The Final Project application process is standardized and takes place during each semester – watch for announcements. Individual contacts with faculty prior to submission of the Final Project proposal are strongly recommended.

The Final Project application process should be completed three semesters prior to the student's final semester. It is the student's responsibility to adhere to this schedule. Failure to do so may result in delay or termination of the student's graduate program.

All members of the Graduate Advisory Committee (not just the Chair) are expected to take an active role throughout the student's program to provide the intellectual climate for scholarly accomplishment and to detect difficulties in a student's performance so that remedial action may be taken as soon as such difficulties become evident.

The Graduate Advisory Committee and the student are expected to meet at appropriate intervals to critically assess the student's program with regard to progress with Final Project. It is recommended that meetings of the committee occur at least twice each semester and more frequently, perhaps biweekly or weekly, during the semester in which the Final Project is being developed. Such meetings may be requested by the student or any member of his/her committee. If adequate progress is not evident, the Graduate Advisory Committee has the obligation to clearly specify its reasons for concern and to stipulate the performance expected.

Final Projects must be documented according to the School of Architecture/College of Design guidelines prior to graduation (see Appendix B). All Final Projects must also be presented for public review at a time designated by the

School Head at the end of the semester (see Appendix C).

Changes in the composition of an Advisory Committee are sometimes desirable or necessary. Recommendation for any changes should be submitted in writing to the Director of Graduate Programs and should indicate that all faculty members involved have been informed and support the recommendation.

#### C.6.2 | MArch Final Project / Track 1 and Track 3

Approved by ARC faculty in May 2005 and updated May 2012 and October 2022 for students who will be completing their Final Project in Fall 2006 and later.

The opportunity to engage in a Final Project is offered by the faculty as an alternative to the last ARC 503 studio to students who:

1. Have demonstrated the dedication, ability, rigor, and discipline to work productively in an independent mode,
2. Have demonstrated the promise to manage a complex project,
3. Have demonstrated a capability for excellent work in architecture studio courses.
4. Have a clear focus that they wish to pursue that can be translated into a design project and that cannot be satisfied through regular studio options, and
5. Have maintained a 3.0 cumulative grade point average.

The faculty will grant this alternative opportunity to qualifying students after the procedures that are outlined below are successfully completed. Anyone wishing to engage in the final project is encouraged to discuss with members of the faculty the effort necessary to conceive a theoretical basis for a serious investigation and to establish an architectural project that focuses on that theoretical basis. While some may benefit from the educational format of the Final Project most are better served by the structure provided by an Advanced studio. Students should not underestimate the level of commitment necessary to successfully complete a Final Project.

#### C.6.3 | Final Project Application Process:

To be completed the semester preceding ARC 697 Final Project research.

1. Call by the Graduate Advisor for the student to indicate in writing their intent to pursue a Final Project. Before submitting a statement of intent, the student must first carefully review the above statement of procedures to be followed, a calendar of significant dates related to the process, and the "Description of Final Project." The student's academic advisor may be of assistance during this period of deliberation.
2. Each student who wishes to continue to be considered for a Final Project is to submit a written proposal through the Graduate Advisor to the Architecture Faculty that includes:
  - a. A clear statement of the theoretical position or architectural proposition that will be pursued (what is to be studied, why it is important, and a list of relevant precedents),
  - b. A bibliography,
  - c. Identification of the project that is intended as the vehicle to demonstrate the thesis,
  - d. Evidence of interest in the topic (other coursework, papers, projects, etc.),
  - e. A full-time faculty member who has agreed to chair the student's committee. It is strongly recommended that the student also secure the committee's two additional members and submit those names with the proposal.
  - f. The designation of the semester the Final Project is intended to be completed.
3. Architecture Faculty review the proposals submitted and either accept or reject the proposal as a potential Final

Project. Acceptance requires majority positive vote by the combined tenured and tenure track faculty in Architecture. Note: Acceptance may be coupled with suggestions to correct deficiencies or to make revisions. Rejected proposals may be revised and resubmitted one time in the format designated in #4 of this section. If the proposal is again rejected it may not be resubmitted.

Each student who is accepted is to form his or her advisory committee, prior to enrolling in ARC 697 Final Project Research.

4. Successful completion of Final Project will be determined by the Advisory Committee who will also award the final grade.

#### **C.6.3.1 | Steps in Final Project Application Process:**

During students' first ARC 503 studio (or three semesters before completing Final Project).

1. First month of classes: Graduate Advisor to notify students of process.
2. According to the deadline set by the Graduate Advisor, students are to indicate their intent to do Final Project.
3. According to a second deadline set by the Graduate Advisor: student to submit written proposal as outlined above.
4. Architecture Faculty review the proposals submitted and either accept or reject the proposal as a potential Final Project. Acceptance requires a majority positive vote by the combined tenured and tenure track faculty in Architecture. Note: acceptance may be coupled with suggestions to correct deficiencies or to make revisions. Rejected submissions must be revised and resubmitted.
5. Within three weeks: faculty to accept or reject the proposals and Graduate Advisor to notify students.
6. Prior to last day of classes student is to correct deficiencies or revise proposal if required, form committee, and register for ARC 697 under the direction of the Committee Chair.

#### **C.7 | MAAS ADVANCED ARCHITECTURAL STUDIES PROGRAM**

MAAS advisors work with the student for the duration of their program. This includes:

- Advise the student regarding their course of studies. The Directed Research Project is research that will assist the development of the advisor's scholarship while also supporting the student's methods and areas of research. The Advanced Architectural Studies Project is a self-directed project chosen and developed by the student in consultation with their advisor.
- Work with the student to develop their Advanced Architectural Studies project description. Each advisor has discretion regarding what the description includes. Components may include an abstract or problem statement of topic, related subjects, primary argument and intended conclusions, bibliography, research methodology (e.g. case studies, literature review, interviews or questionnaires, demonstration design project, etc.), and deliverables.
- Develop a program for Directed Research.
- Advise about electives to support research.
- Recommend sources, organizations, and opportunities for submittal to conferences.
- Establish critical dates and periodic submittals.
- Assist in preparing interim presentations for colloquia and final presentation.
- Clear for graduation after satisfaction of degree requirements.

## C.8 | MAAS PUBLIC PRESENTATION

The student and advisor, in consultation with the MAAS Coordinator, establish the day and time of the presentation of their Advanced Architectural Studies project. This should be scheduled for a date before the end of the student's final semester and announced to the faculty and students of the School of Architecture.

## C.9 | MAAS FINAL DOCUMENT

The student and advisor must prepare a final, digital (.pdf) document that will be catalogued in the NC State Library. Students are to work with Director of Design Library for formatting requirements and final submission.

## D | DEGREE AUDIT

In Fall 2021, the School of Architecture moved to a Degree Audit for all ARC graduate programs. The degree audit tracks which courses are required for graduate students to graduate. It is the student's responsibility to ensure that all of the courses in the Degree Audit are met or waived prior to applying to graduate. See Appendix A for examples.

### D.1 | ARC GRADUATE STUDENT GUIDELINES

#### D.1.1 | MArch Guidelines

##### 1 Architecture-MR

The first section of the Degree Audit lists the graduate courses required to satisfy the Track requirements.

Studios: Four ARC 500-level studios are required of all Track One and Track Three students. Studios other than the regular ARC 500/503 series, to be counted toward the degree, will require prior written approval by the DGP, the School Head and endorsement by the student's advisor. This applies to studios taken at other universities. Transfer credit for studios taken at other universities is approved only after the studio is completed, the work reviewed by the School Head, DGP, and select faculty members, and deemed equivalent to that of an NCSU graduate studio.

Professional (Major) Electives: Graduate electives include any 500 or 600 level course (other than studio) that is offered by the School (ARC prefix only), except ARC 590-14, ARC 590-32, and ARC 590-41. ARC 590-14, ARC 590-32, and ARC 590-41 count as the graduate equivalent of required undergraduate courses. ARC 561: Practice of Architecture is a required elective and must be taken before graduating.

ARC 697 Final Project Research can only be taken if a student's Final Project proposal has been accepted by the full faculty. ARC 697 will be counted as an elective.

Independent Study and Special Projects: A maximum of 6 credit hours of this type of course may be counted toward the Master degree. Additional credit hours in these categories represent an exceptional circumstance and require a written justification and prior approval by the School Head. Courses taken in these categories require a special form that must be completed prior to registration for the course. The form requires a description of the activity to be undertaken and approval of the instructor involved, the Advisor or Advisory Committee Chair, and the School Head.

List College of Design Electives at the 400 level and higher are allowed in place of ARC electives. A maximum of 6 credits may be taken of college of design graduate electives with ADN, ARC, GD, ID, LAR prefixes.

## 2 ARC-MR Undergraduate Courses

The second part of the Degree Audit lists the Undergraduate Courses require to earn a National Architecture Accrediting Board accredited degree.

- a. For Track 1 students, Undergraduate Courses will need to be waived based on previous undergraduate coursework. If there is not sufficient evidence to waive a course, then the undergraduate course will be added as a requirement to the MArch degree.
- b. For Track 3 students, all Undergraduate Courses will be required unless the course has already been taken at NCSU or a waiver is requested. All requests to waive a course must be sent to the DGP.
- c. Graduate students must earn a C- or better to receive credit for courses
- d. For Track 3 students, because the Graduate School maintains the Degree Audit, there may be a delay after completing a required undergraduate course for the course to be marked as 'completed' on the degree audit. For undergraduate courses ARC 399 and lower, the Degree Audit will be manually updated by the Graduate School, generally a few weeks after the semester has ended.

### D.1.2 | MAAS Guidelines

At least 18 CH must be graduate credits earned while the student is enrolled in MAAS and those 18 CH must include Directed Research (3CH) and Advanced Architectural Studies Project (15CH). Students to work closely with their advisor in course selection.

### D.1.3 | Joint ARC Graduate Student Guidelines

1. After a student applies to graduate (before Fall or Spring Break), the Degree Audit is checked by the Graduate Services Coordinator to make sure that all degree requirements have been met. If met, then the application to graduate is approved.
2. Transfer Credits: The School of Architecture Graduate Programs follows the NCSU Graduate School Minimum Requirements for Transfer of Credits (found here: <https://www.ncsu.edu/grad/handbook/sections/3.1-minimum-degree-requirements.html>), in addition:
  - a. A maximum of 6 credit hours of transfer credit from an accredited university or college may be applied to the Master's program (official transcripts required by the Graduate School according to criteria specified on the 'Request for Transfer Credit' form); and
  - b. A maximum of 9 credit hours from Post-Baccalaureate Studies (PBS) may be applied to the Master's Program.
  - c. Any additional credits transferred are at the discretion of the DGP in conformance with the Graduate School requirements.
3. Correspondence Courses: Graduate credit cannot be received for correspondence courses.

## D.2 | CO-MAJOR

Students may co-major at the masters level in programs with identical degrees, although the degrees do not necessarily have to have identical requirements, e.g., two master of science programs, one with a thesis requirement and one without. Students must obtain the approval of both graduate programs as well as appropriate representation on the advisory committee and must meet all requirements of both programs. Students who co-major are not required to declare a minor. Co-majors must meet all requirements for majors in both programs. One degree is awarded and

the co-major is noted on the transcript.

### **D.3 | STUDENT PERFORMANCE**

A minimum grade of C- is required for all professional degree pre-requisite and letter-graded courses in order for those courses to be credited toward a Master of Architecture degree. A satisfactory "S" grade is required in pre-approved pass/fail courses.

Graduate students are also expected to maintain a *3.0 grade point average*. The Graduate School has established strict policies regarding academic standing and GPA maintenance. See the University Graduate Student Handbook for details on Academic Warnings, Probation, and Termination: <http://www.ncsu.edu/grad/handbook/table-of-contents.html>

## **E | FINANCIAL AID OPPORTUNITIES**

The School of Architecture has limited support in the form of fellowships for which there is much competition by a very talented group of applicants. These fellowships are merit-based as demonstrated by past performance. Decisions are made regarding these awards from the materials supplied for application. Teaching assistantships are normally not offered to incoming graduate students but are available after you have been enrolled for one year. Availability of the teaching assistantships is announced in the Spring Semester for the next academic year. A limited number of research assistantships may also be available. They are not, however, administered by the School of Architecture. Rather, the individual faculty member conducting the research normally appoints these assistants. Logically, they are also usually awarded to enrolled students on a competitive basis. Further, there are a small number of fellowships available to students entering their final year of graduate studies. These grants usually include summer employment in an office as well as a stipend.

### **E.1 | ELIGIBILITY FOR FINANCIAL AID**

A graduate student must be in good academic standing (3.0 GPA or better) to be eligible for loans, fellowships, or appointment to an assistantship and must be registered for each semester in which aid is received.

Graduate students may qualify for various loan programs administered by the NCSU Financial Aid Office, located through University Student Services.

Neither the College of Design nor the School of Architecture provides loans to students.

### **E.2 | SCHOLARSHIPS, FELLOWSHIPS, AWARDS, AND RECOGNITIONS**

The School of Architecture grants a number of Scholarships, Fellowships, Awards, and Recognitions to meritorious students. Every year new Scholarships, Fellowships, Awards, or Recognitions are being added as the School continuously tries to enlarge its donor base.

Most Scholarships, Fellowships, Awards, and Recognitions the School grants are merit-based, rather than need-based. The School faculty and administration administers the selection of its Scholarships, Fellowships, Awards, and Recognitions. Some awards involve a competition or portfolio review conducted by a special jury. Some Fellowships are utilized in recruiting outstanding students to the professional and graduate programs of the School. Admission Committees recommendations are also used in determining the recipients in such cases. Most Scholarships, Fellowships, Awards, and Recognitions do not require filing of a formal application by students. Those that do require

an application are identified below with an asterisk (\*).

Duda/Paine Architects Fellowship:

The fellowship recipient must possess the simultaneous criteria of outstanding academic performance, design excellence, and professional promise. The recipient must submit an application to include two letters of recommendation and an essay. A committee established by the Head of Architecture will select the recipient with final approval from the Head of Architecture. Applicants should have aspiration to practice and remain in North Carolina.

\*An application is necessary.

Moseley Architects Fellowship:

Presented to an outstanding BEDA graduate entering the Bachelor of Architecture program, or a continuing graduate student who has at least 2 but no more than 3 semesters left in the Master of Architecture program. In addition to the fellowship, the recipient may be offered summer employment with the firm at prevailing wages. Students must be prepared to accept a paid internship if offered. \*An application is necessary.

Odell Associates Fellowship:

Presented to an outstanding student in the Master of Architecture program. In addition to the fellowship, the recipient may be offered summer employment with the firm at prevailing wages. Students must be prepared to accept a paid internship if offered. \*An application is necessary.

WGM Fellowship:

Presented to students in the School of Architecture working toward a professional or Masters level degree in the department of Architecture who possess outstanding academic and creative qualifications.

**E.3 | MERIT AWARDS AVAILABLE TO ENTERING STUDENTS IN THE MASTER OF ARCHITECTURE PROGRAM**

Recipients of these awards are nominated by the Graduate Admissions Committee.

AIA NC Eastern Section Fellowship:

Presented to a graduate student in the School of Architecture who meets the following criteria: first priority should be given to a student from the area covered by the Eastern Section of AIA NC; second the student should have high academic merit; third the student should have financial need.

AIA NC Piedmont Section Scholarship

The scholarship recipient must meet the following simultaneous criteria; First priority should be given to an Architecture student from the area covered by the Piedmont Section of AIA; second the student should have high academic merit.

AIA Winston-Salem Scholarship

The scholarship recipient must meet the following criteria; First preference should be given to an Architecture student from the area covered by the Winston Salem Section of AIA NC; second the student should have high academic merit.

David Allen Company Fellowship:

Awarded to an outstanding student working toward the Master of Architecture. The student shall possess outstanding academic qualifications or demonstrate financial need.

Eduardo Catalano Architecture Scholarship

This endowment shall be used to provide two or more scholarships enrolled in the School of Architecture at NCSU. Awards shall be made by the Dean of the College of Design, or his/her designee, in accordance with the established procedures for awarding merit based and financial need based scholarships. Each year a minimum of two awards will be made. One award will be based on academic merit and one award will be based on financial need.

Harry B. Gilbert Fellowships:

Awarded to a student entering the Master of Architecture program who shows promise of excellence in the study of Architecture.

J.A. Jones Architecture Scholarship:

Recipients will be limited to students working toward a baccalaureate, professional or Masters level degree in Architecture and have a background or demonstrated interest in the construction industry. The Head of the Architecture Department, in consultation with the faculty, shall nominate one or more candidates who meet these criteria.

O'Brien/Atkins Associates Fellowship:

The fellowship recipient should be a graduate student in the first or second year of Masters of Architecture program; candidates must possess the simultaneous criteria of academic performance and professional promise.

Peterson Associates Scholarship Endowment

The scholarship recipient(s) must be a first-year student in the MArch program in the Architecture Department. The Head of Architecture will make final approval for the recipient(s). All other qualifications being equal, preference will be given to a resident of North Carolina.

Tony Sharp Memorial Scholarship:

Awarded to an outstanding student entering the Master of Architecture program.

Triangle Brick Company Scholarship:

Awarded to an outstanding student entering the Master of Architecture program. The recipient should be a graduate of a high school in the state of North Carolina.

William B. Little Scholarship

Provide annual scholarship to undergraduate or graduate students enrolled in the School of Architecture and awarded by the Architecture faculty according to established procedures for awarding merit-based scholarships.

## **E.4 | MERIT AWARDS AVAILABLE TO CONTINUING STUDENTS IN THE MASTER OF ARCHITECTURE PROGRAM**

Henry L. Kamphoefner Honor Fellowship:

In memory of College of Design Founding Dean Henry L. Kamphoefner. Presented to an outstanding graduate student who has at least 2 but no more than 3 semesters left in the Master of Architecture program; selected on the basis of total academic achievement without regard to financial need. Selection to be made by the three most senior members of the Architecture faculty who are members of the College of AIA Fellows.

The Shawcroft Prize:

All enrolled architecture students at NC State University College of Design will be eligible for the prize. Each instructor will be asked to nominate appropriate students to the award committee. All entries will consist of a portfolio that must

include a minimum of five but no more than ten drawings. More than 50% of all submitted drawings must be manual, one must be a freehand drawing of any subject (not just architecture) and one must be a perspective drawing of a building (can be a mixed digital/manual technique). A jury to include three people – two faculty members and one practicing architect - will be convened mid spring semester by the faculty member in charge of the Shawcroft Prize for Drawing.

#### Robert A. Chase Prize:

Awarded to the Master of Architecture student entering the last year of study who has demonstrated promise and interest in urban design, historic preservation and renovation and/or city redevelopment utilizing restoration practices.

#### Michael Tribble Scholarship

The scholarship recipient should be either an undergraduate or graduate student enrolled in the Department of Architecture at NC State University's College of Design.

### **E.6 | OTHER MERIT AWARDS**

#### AIA / AAF Scholarships:

Each year the School of Architecture is invited to nominate 4-5 candidates to the AIA/AAF National Scholarship Program. Awards usually range between \$500 and \$2500. \*An application is necessary.

#### Alumni Fellowships:

The fellowships are administered by the North Carolina State University Graduate School. One or two incoming graduate students are customarily nominated by the School of Architecture.

### **E.7 | GRADUATION AWARDS**

#### The American Institute of Architects Henry Adams Medal

Awarded to a professional-level graduating student who demonstrates high scholastic achievement, character, and promise of professional ability.

#### Alpha Rho Chi Medal

Awarded to the graduating student who has shown an ability for leadership, willing service to his or her school, and promise of real professional merit through attitude and personality.

#### Architecture Faculty Award for Design Achievement in the M. Arch. Program in Honor of the Emeritus Faculty of the School

Awarded to a student graduating in the Master of Architecture program who exhibits the greatest achievement in design.

#### Technology Award in Honor of the Emeritus Faculty of the School

Awarded to a graduating student whose work exhibits great promise in the creative application of technology.

#### Academic Achievement Award

Awarded to the graduates in each degree program with the highest grade point average.

### **E.8 | COMPETITIONS**

Several monetary and merit awards are presented each year to winners of design competitions administered by the faculty within the design studios or classes. Students may also individually enter competitions sponsored by the

American Institute of Architecture Students, the American Institute of Architects, Association of Collegiate Schools of Architecture the National Institute of Architectural Education, and others as appropriate. Design competition information from various sponsors is received periodically and kept on file. Students are encouraged to examine the Architecture bulletin board (located on the breezeway) and the Students' Opportunities file (located in the administrative office).

### **E.9 | ASSISTANTSHIPS**

Ten to twenty teaching assistantships have been historically available each semester to graduate students selected on the basis of qualifications, and overall academic record. Teaching assistants provide support for faculty, administration and the materials, computer or media labs. We have been able to support TAs by placing them on the University's Graduate Student Support Plan (GSSP) Applications for teaching assistantships are typically solicited in the semester preceding semester. The faculty responsible for the course are responsible for selecting the TA(s) by whatever means they choose. Guidelines for Graduate Teaching Assistants appear in Appendix D.

A limited number of research assistantships are also occasionally available. These are funded by various research and extension projects and by projects conducted by individual faculty members. Research directors and faculty select appropriate graduate students based on their expressed interest and capabilities. Interested students should contact Sharon Joins, Assoc. Dean for Academic Strategy ([smbennet@ncsu.edu](mailto:smbennet@ncsu.edu)) for more information.

### **E.10 | TEMPORARY LABOR**

The College of Design has a small budget for temporary labor which may occasionally be used to employ students to undertake various tasks – miscellaneous design jobs, writing and editing, supervising labs, clerical and typing chores, etc. Hourly rates are negotiated, and payment is on a biweekly basis. While this source of support is quite limited, graduate students wishing to be considered for such assignments may notify the School or College in writing and indicate special skills such as those noted above. You will be contacted when the need arises.

### **E.11 | ELIGIBILITY FOR IN-STATE TUITION RATES**

Students who are citizens, but not residents, of North Carolina should be aware that residency can be established while a full-time student after one year in the state. There are clear guidelines to follow that should begin as soon as one arrives in Raleigh. The benefits are substantial – the difference between in-state and non-resident tuition which is several thousand dollars per semester. Establishing NC citizenship is available to graduate students that are United States citizens.

### **E.12 | TUITION REMISSION**

A limited number of GSSP positions with tuition remissions may be available each year to graduate students only. They are administered by the Graduate School on the recommendations of the School. Tuition remission reduces waives full tuition for international students, full tuition for US citizens that are not NC residents for the first year and then discounts the out-of-state rate to that of in-state rate in the second year if residency is not established. GSSP eligibility is set by the University, check with their website for criteria.

Priority for tuition remission is given to incoming out-of-state students. Recipients are selected by the admission committee on the strength of their academic record and portfolio. No special application is necessary.

## **F | STUDENT ORGANIZATIONS AND OTHER OPPORTUNITIES**

### **F.1 | NCSU GRADUATE STUDENT ASSOCIATION (GSA)**

All of the graduate students in the university are eligible to be members of the GSA. The GSA functions as a voice for graduate students in dealing with problems concerning graduate education. The GSA president has full voting membership on the Graduate School Administrative Board and GSA has the ability to broach responsible grievances to the administration on behalf of any graduate student.

The GSA Council consists of elected representatives from each academic unit. The GSA Council meets monthly to discuss issues which are of concern to all graduate students. Information about new academic policies, social events, and other activities concerning graduate students is distributed at this time. All graduate students are welcome to attend GSA Council meetings and are encouraged to actively participate on GSA committees.

Events and activities sponsored by GSA include the following:

- Travel Fund – funds are allocated to students to present original research at professional meetings.
- Graduate Student Orientation – campus orientation to graduate students at the beginning of the Fall semester in conjunction with the Graduate School.
- Teaching Assistant Awards – along with the Alumni Association, an annual awards ceremony is held to honor teaching assistants of outstanding merit.
- GSA Chapter Funds – for academic units with GSA chapter, funds are provided for School activities.
- Socials – each semester the GSA sponsors a social which provides graduate students an opportunity to meet students outside their own academic unit.

You are encouraged to become involved in the university community, including the GSA Chapter in your academic unit. If you have suggestions on how your GSA can be more helpful, please contact your academic unit's GSA representative.

## **F.2 | ARCHITECTURE GRADUATE STUDENT ASSOCIATION (AGSA)**

The School of Architecture GSA sponsors a variety of programs and events throughout the year which are announced in studios and on posted notices. Information regarding officers, meetings and activities will be announced during the academic year.

## **F.3 | AMERICAN INSTITUTE OF ARCHITECTURE STUDENTS (AIAS)**

AIAS seeks to promote cooperation between students and practicing architects as well as better understanding of the profession. AIAS is linked to the American Institute of Architects. Information regarding officers, meetings and activities will be announced during the academic year.

## **F.4 | NATIONAL ORGANIZATION OF MINORITY ARCHITECTURE STUDENTS (NOMAS)**

The National Organization of Minority Architecture Students (NOMAS) strives to advocate for diversity and inclusion within the architectural and design student body. Our mission is to empower while promoting a sense of community and professional development. NOMAS is the student chapter of the National Organization of Minority Architects. Information regarding officers, meetings, and activities will be announced throughout the academic year.

## **F.5 | DESIGN COUNCIL**

The Design Council is the College's arm of undergraduate student government. As such, it is assigned official responsibility for representing undergraduate student interests at the University level, and for other procedures relating to student government. Information regarding officers, meetings and activities will be announced during the academic year.

## F.6 | STUDY ABROAD PROGRAMS

The School of Architecture offers study abroad opportunities in the form of semester-long exchange programs, summer studios, and travel study. Participating students may enroll in ARC 589, Architectural Travel Study, as well as other offerings specifically for students studying abroad. The aim of these courses is to refine students' appreciation and understanding of Architecture, hone their observation faculties, and improve their drawing skills.

### F.6.1 | The Prague Institute

The College of Design, including the School of Architecture, has established a year-round Prague Institute in collaboration with the three main design-based educational institutions in Prague, the Academy of Arts/Architecture and Design (VSUP), The Academy of Fine Arts (AVU, and the Faculty of Architecture at the Czech Technical University in Prague (CVUT). The Prague Institute is administered by and is a permanent part of the College of Design, and all courses will be registered at NC State University. The School of Architecture typically offers a 15-week full semester studio at the Prague Institute during the Fall. The College will announce further plans and details as they are available.

### F.6.2 | Semester-Long Student Exchange Programs

The School of Architecture, in conjunction with the Study Abroad Office, has agreements with several overseas institutions to conduct bilateral student exchange programs. For Graduate students, the study abroad semester may occur wherever an ARC 503 studio appears in their curriculum. All students should discuss their intentions in advance with their advisor.

The Graduate School requires that any credits earned at another institution and will be applied to a student's graduate program, must be transferred to NCSU from the abroad institution. This is only done after a student has returned from the abroad institution, and is not guaranteed prior to completing the abroad coursework. The Graduate School transfer form can be found here: <https://grad.ncsu.edu/faculty-and-staff/forms/graduate-school-forms/>

The Student Exchange Programs are built around the following guidelines:

- 1 All students who are interested in studying abroad must contact and follow the procedures of the Study Abroad Office.
- 2 Interested students must discuss their plans with the Graduate Advisor and DGP
- 3 Taking language courses in advance is advised. You should confer with the Study Abroad Office, as soon as possible for further advice.
- 4 Students must enroll in a full-time course load; 9 credit hours minimum for graduates. NC State students participate in an appropriate level studio at the host institution. At some institutions, studios are not conducted in English. In this case students who do not speak the language of the host country will be permitted to participate, but will be required to enroll in a 3 credit intensive language course for the duration of their semester abroad. Students also enroll in ARC 589, Travel Study. Other classes may be taken as language skills permit.

- 5 Participating students make travel arrangements on their own. It may be possible to exchange furnished accommodations on their own initiative. However, the Study Abroad Office will go over this kind of information at the mandatory pre-departure orientation.
- 6 NC State students pay tuition at NC State and are not charged tuition by the host institution.

If you have any specific questions about the semester exchange programs, please contact the Study Abroad Office.

### F.7 | SUMMER STUDIO

It is possible for graduate students to participate in other U.S. architecture schools' summer graduate studio programs. However, prior approval by the student's academic advisor and the Director of the School of Architecture is required. Work conducted in such programs has the possibility of being transferred after successful completion and review by the School Head and DGP upon the student's return. Earning a passing grade in such coursework as evaluated by another institution does NOT guarantee the approval of transfer of credit to NCSU.

### F.8 | TRAVEL STUDY (ARC 589)

Architectural Travel Study courses (ARC 589: Travel Study II) may be taken by students planning independent study domestically or overseas.

All participants in the School's Student Exchange Programs are required to undertake at least a three-week travel study program. This requirement is intended to maximize the learning opportunities while away from campus. It may also be conducted while participating in the School's other study abroad programs.

The components of travel study are:

1. Preparatory Work: Identify a topic for in-depth study. Conduct preliminary research on that topic and submit a written proposal supported by drawings, itinerary, and a bibliography.
2. Travel Study: During the travel period, students keep a professional sketchbook/journal as the major vehicle for recording, analyzing and evaluating examples of the subject under study. Choice of sketching media is left to you. Emphasis should be placed on drawing as a tool for analyzing the architectural and/or urban design qualities of your subject. Written entries should go beyond factual description to reflect critical evaluation.
3. Conclusion: Conclude the travel portion of the study program with a short paper (1000 words or less) reflecting on your travel and summarizing the results of your in-depth study.
4. Due Date: Journals and Papers are due on the first day of classes following the semester during which the travel study program took place.
5. Evaluation: The grade for the course will depend on quality and quantity of graphic and written material as they support the identified topic of the study. Consideration will be given to growth and maturation as demonstrated by the sequence of entries.
6. Presentation: An important requirement of this course is to deliver a public presentation of the study conducted to the College of Design community. This should take place during the semester in which the student returns

to school.

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END OF DOCUMENT

See Appendices:

Appendix A Plan of Graduate Work (Samples)

Appendix B Final Project Documentation for MArch Students

Appendix C: MArch Final Project Preparation and Reviews

Appendix D: Guidelines for Graduate Teaching Assistants

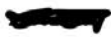
## APPENDIX A | DEGREE AUDIT (SAMPLES) MARCH ONLY

### 1 – ARC-MR- Track X

All courses in this section for both tracks must be marked 'completed' for graduation.

### Degree Audit



|                     |                                                                                   |                                                                                   |  |                                                                                                                   |                                                                                     |
|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>ID</b>           |  |  |  |  <b>Total Units</b>            |                                                                                     |
| <b>Program</b>      | ARC                                                                               | Architecture                                                                      |  |  <b>Cum GPA</b>                | 3.840                                                                               |
| <b>Plan</b>         | 12ARCMR                                                                           | Architecture-MR                                                                   |  |  <b>Plan GPA</b>               | 3.803                                                                               |
| <b>Sub-Plan</b>     | 12ARCTRK3                                                                         | Track 3 - ARC                                                                     |  |  <b>Applied for Graduation</b> | None                                                                                |
| <b>Req Term</b>     | Fall '15                                                                          |                                                                                   |  |                                                                                                                   |                                                                                     |
| <b>Last Updated</b> | 08/15/2022 03:57 PM                                                               |                                                                                   |  | <b>Must Graduate before</b>                                                                                       |  |
| <b>Advisor</b>      | Kristen Schaffer                                                                  |                                                                                   |  |                                                                                                                   |                                                                                     |

 Completed  
  Enrolled  
  Incomplete/Late  
  Planned  
  Unmet

  **1 - Architecture-MR Track 3**

|                                                                                     | Description                                                                | Class                                                                                                       | Term       | Grade | Units |                               |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------|-------|-------|-------------------------------|
|    | 10 Arch Des Prof Stu                                                       | <a href="#">ARC 500</a>                                                                                     | Spring '21 | A+    | 6.000 |                               |
|   | 20 Adv ARC Design<br><small>Topic: Design for Rural Health (Publ</small>   | <a href="#">ARC 503</a>   | Fall '21   | A+    | 6.000 |                               |
|  | 30 Adv ARC Design                                                          | <a href="#">ARC 503</a>                                                                                     | Spring '22 | A-    | 6.000 |                               |
|  | 40 Adv ARC Design                                                          | <a href="#">ARC 503</a>                                                                                     | Sum1 '22   | A     | 6.000 | <a href="#">Rqmnt Details</a> |
|  | 50 Practice of Arch                                                        | <a href="#">ARC 561</a>                                                                                     | Spring '22 | A     | 3.000 |                               |
|  | 60 Spec Topics in ARC<br><small>Topic: ARC Constr Systems</small>          | <a href="#">ARC 590</a>  | Fall '20   | A     | 3.000 | <a href="#">Rqmnt Details</a> |
|  | 60 Spec Topics in ARC<br><small>Topic: Hist of Contemporary Arch</small>   | <a href="#">ARC 590</a>  | Fall '20   | A+    | 3.000 | <a href="#">Rqmnt Details</a> |
|  | 60 Spec Topics in ARC<br><small>Topic: Environment Control Systems</small> | <a href="#">ARC 590</a>  | Spring '21 | A     | 3.000 | <a href="#">Rqmnt Details</a> |
|  | 60 Tectonics & Craft                                                       | <a href="#">ARC 530</a>                                                                                     | Fall '21   | A     | 3.000 | <a href="#">Rqmnt Details</a> |
|  | 70 Special Topics ID<br><small>Topic: Human Factors in Design</small>      | <a href="#">ID 582</a>                                                                                      | Spring '21 | A     | 3.000 | <a href="#">Rqmnt Details</a> |
|  | 70 Special Topics LAR<br><small>Topic: Sustainable Development</small>     | <a href="#">LAR 582</a>                                                                                     | Fall '22   |       | 3.000 | <a href="#">Rqmnt Details</a> |

### 2 – ARC-MR- Undergraduate Courses

All courses in this section for both Track 1 and Track 3 must be marked 'completed' for graduation. For Track 1 students these courses can be waived based on undergraduate transcripts. For Track 3 students, the course can be waived by following the waiver procedure or is completed by taking the NCSU equivalent course. For 200 and 300 level courses, once a student has earned a C- or better in the course, then the course will appear as waived' in the degree audit.

## Track 1

### 2 - ARC-MR Undergraduate Courses

|   | Description                                               | Class                   | Term | Grade | Units |
|---|-----------------------------------------------------------|-------------------------|------|-------|-------|
| ✓ | 10 Nat Sys & Arch<br><a href="#">Approved Waiver</a>      | <a href="#">ARC 211</a> |      | WA    | 3.000 |
| ✓ | 20 Struct & Materials<br><a href="#">Approved Waiver</a>  | <a href="#">ARC 232</a> |      | WA    | 3.000 |
| ✓ | 30 World Arch<br><a href="#">Approved Waiver</a>          | <a href="#">ARC 241</a> |      | WA    | 3.000 |
| ✓ | 40 Hist Western Arch<br><a href="#">Approved Waiver</a>   | <a href="#">ARC 242</a> |      | WA    | 3.000 |
| ✓ | 50 Arch Structures I<br><a href="#">Approved Waiver</a>   | <a href="#">ARC 331</a> |      | WA    | 3.000 |
| ✓ | 60 Arch Structures II<br><a href="#">Approved Waiver</a>  | <a href="#">ARC 332</a> |      | WA    | 3.000 |
| ✓ | 70 Env Control Sys<br><a href="#">Approved Waiver</a>     | <a href="#">ARC 414</a> |      | WA    | 3.000 |
| ✓ | 80 ARC Construct Sys<br><a href="#">Approved Waiver</a>   | <a href="#">ARC 432</a> |      | WA    | 3.000 |
| ✓ | 90 Hist Contemp ARC<br><a href="#">Approved Waiver</a>    | <a href="#">ARC 441</a> |      | WA    | 3.000 |
| ✓ | 100 Arch Drawing<br><a href="#">Approved Waiver</a>       | <a href="#">ARC 450</a> |      | WA    | 3.000 |
| ✓ | 110 Digital Drawing<br><a href="#">Approved Waiver</a>    | <a href="#">ARC 451</a> |      | WA    | 3.000 |
| ✓ | 120 ARC DN Fund Envirm<br><a href="#">Approved Waiver</a> | <a href="#">ARC 403</a> |      | WA    | 6.000 |
| ✓ | 130 ARC DN Fund Form<br><a href="#">Approved Waiver</a>   | <a href="#">ARC 404</a> |      | WA    | 6.000 |
| ✓ | 140 ARC DN Fund Tech<br><a href="#">Approved Waiver</a>   | <a href="#">ARC 405</a> |      | WA    | 6.000 |

## Track 3:

▼ ✖ 2 - ARC-MR Undergraduate Courses

|   | Description                                              | Class                   | Term       | Grade | Units |
|---|----------------------------------------------------------|-------------------------|------------|-------|-------|
| ✓ | 10 Nat Sys & Arch<br><a href="#">Approved Waiver</a>     | <a href="#">ARC 211</a> |            | WA    | 3.000 |
| ✓ | 20 Struct & Materials<br><a href="#">Approved Waiver</a> | <a href="#">ARC 232</a> |            | WA    | 3.000 |
| ✓ | 30 World Arch<br><a href="#">Approved Waiver</a>         | <a href="#">ARC 241</a> |            | WA    | 3.000 |
| ✓ | 40 Hist Western Arch<br><a href="#">Approved Waiver</a>  | <a href="#">ARC 242</a> |            | WA    | 3.000 |
| ✓ | 50 Arch Structures I<br><a href="#">Approved Waiver</a>  | <a href="#">ARC 331</a> |            | WA    | 3.000 |
| ✓ | 60 Arch Structures II<br><a href="#">Approved Waiver</a> | <a href="#">ARC 332</a> |            | WA    | 3.000 |
| ✖ | 70 Env Control Sys                                       | <a href="#">ARC 414</a> |            |       | 3.000 |
| ✖ | 80 ARC Construct Sys                                     | <a href="#">ARC 432</a> |            |       | 3.000 |
| ◆ | 90 Hist Contemp ARC                                      | <a href="#">ARC 441</a> | Fall '22   |       | 3.000 |
| ✓ | 100 Arch Drawing                                         | <a href="#">ARC 450</a> | Fall '20   | A     | 3.000 |
| ✓ | 110 Digital Drawing                                      | <a href="#">ARC 451</a> | Spring '21 | A+    | 3.000 |
| ✓ | 120 ARC DN Fund Envirm                                   | <a href="#">ARC 403</a> | Spring '21 | B     | 6.000 |
| ✓ | 130 ARC DN Fund Form                                     | <a href="#">ARC 404</a> | Fall '20   | A     | 6.000 |
| ✓ | 140 ARC DN Fund Tech                                     | <a href="#">ARC 405</a> | Fall '21   | B     | 6.000 |

## APPENDIX B | FINAL PROJECT DOCUMENTATION FOR M. ARCH. STUDENTS

The Final Project is the culmination of the Master of Architecture curriculum for some students. The nine credit-hours which are the course work for the Final Project are to be satisfied by sequentially completing ARC 697 Final Project Research and ARC 598 Final Project Studio. All graduate students must provide final written documentation of their projects, as indicated below, before they will be allowed to graduate.

The written documentation which is to include the Final Project Research and Studio, will consist of, at least, the following:

- 1 Title page including: student's name, academic unit's name, college, university, date of submission, degree name, committee names with Chair indicated.
- 2 Abstract, approximately 100 words, describing the project.
- 3 Table of contents
- 4 List of illustrations
- 5 Report text, explaining the project: genesis of the idea, brief review of literature, assumptions, justification, goals, methodology, results, conclusions. References must be footnoted where appropriate. Analytic drawings or illustrations should be included where appropriate.
- 6 Bibliography, using standard form.
- 7 Architectural program and site information.
- 8 Visual documentation of studio work: Good quality reproductions of drawings and photographs of models to meet the format size must be included for binding into the document. Original photo prints, pmt's, black and white, or color xeroxes may be used. No slides and no fold-out pages.
- 9 A minimum of 6 images, documenting the studio work is to be submitted separately. Each image is to be clearly labeled with your name, the title of the project, and the month and year of your graduation. Image files must be TIFF format, 300 dpi minimum.

All written materials must be typed. Number all text pages.

While a standard size (8.5 x 11 inches) page is preferred, other formats are possible. Minimum size is 4.25 x 5.5 inches and maximum size is 8.5 x 14 inches. Whatever the format, allow a 1-inch margin on the binding side. Binding can be on either the long or the short edge. All pages must be the same size.

All materials must be submitted on white bond, 'thesis grade paper' (20-pound weight, 25% rag content) available at several local stores and copy centers. Photocopying should result in clear, clean, high contrast copies.

All graduate students will provide three (3) unbound copies of their project documentation, including all visual materials, to their graduate committee Chairperson at the time of the Final Review of ARC 598 - Final Project Studio. The Chairperson will review the submission for conformance to requirements, then sign a form accepting the materials. The form will be given to the School Director for signature and then to the College Associate Dean who releases the student for graduation. The three (3) copies of the document and the image files are to be given by the committee Chair to the DGP. The written documents will be forwarded to the College Librarian. CDs will be retained in the School office.

All binding is done by D.H. Hill Library providing a hard cover in buckram cloth, with student's name and School's

name in gold stamping on the spine. The binding is at no cost to the student.

One copy of the document is stored permanently at D.H. Hill Library, one copy is used for circulation at D.H. Hill Library, and one copy is stored at the Design Library. Students may be asked to provide extra copies (unbound) to their committee Chair and School. Students are urged to retain the original copy for their own use and records.

## APPENDIX C | FINAL PROJECT PREPARATION AND REVIEWS

The Final Project actually begins with the Final Project Preparation course that the student generally takes in the semester prior to the final semester. The student and the committee shall establish the content and form of documentation for Final Project Preparation. (Generally the documentation will include a written paper articulating the student's position relative to an architectural concept. It will also generally include a description of the vehicle project that the student will use in the Final Project to test the theoretical position, including a building program, site documentation, and a review of relevant precedents.) Each Final Project student is required to present his or her research in a mid-term and a final review with all other Final Project students. The Director of Graduate Programs will coordinate these reviews with each student and the faculty advisory committees.

The Chair of the graduate committee is the supervising faculty for Final Project Preparation. The student is urged to keep all members of the graduate committee informed and must provide all members with a copy of the Final Project Preparation document by the end of the term. One copy of the documentation will be submitted to the Director of Graduate Programs and will be available for all Architecture Faculty to review. All students who have received a passing grade in Final Project Preparation by the end of a given semester are eligible to register for Final Project Studio in the following semester. *No student may register for Final Project Studio (ARC 598) without satisfactory completion of Final Project Preparation (ARC 697) in a previous semester.*

The Final Project will be reviewed initially by the faculty Chair, and any other members of the student's graduate committee. The student and the committee shall establish the format for the Final Committee Review. (This Review will generally include a discussion and critique of the student's understanding of the issues surrounding and history of the theoretical position taken by the study, as well as of the design as a demonstration of that position and as a work of architectural design. Normally this Final Committee Review will last two hours.) While the final grade for the Final Project Studio rests with the faculty Chair (in consultation with the other committee members), all committee members must approve the student's Final Project for presentation at the Public Review. A form will be used that will require each of the committee members to sign as an indication that they approve the student's Final Project. When completed, this form will be provided to the Director of Graduate Programs, indicating that the student is prepared for the Public Review. The Director of Graduate Programs will determine the last day for this Final Committee Review, but generally it will be no later than the last day of classes.

The student must earn a passing evaluation in the Final Committee Review, then must complete the Public Review in order to earn a grade in ARC 598. The student's Final Project Document must be submitted in conformance with the prescribed format and accepted by the committee Chair prior to the Public Review. (See "Final Project Documentation for Master of Architecture Students.") The Public Review is open to all faculty and students, and invited jurors from outside of the College of Design will be present to discuss the work. Each student is expected to introduce their project to the jurors through concise remarks not to exceed 10 minutes, to be followed by an open discussion; the total time per student will be approximately 40 minutes. Out of respect for the importance of this component of graduate education, each student's graduate committee is expected to be present, as are all Architecture faculty. External reviewers from academia and from the profession are also invited to participate in this Public Review. Architecture faculty not on the student's committee are urged to promptly offer evaluative comments regarding the student's Final Project directly to the Committee Chair. The Director of Graduate Programs will determine the last day for this Public Review, but generally it will be within one week after the last day of classes. If all students cannot be reviewed on a single day, then two or more days will be scheduled. Public Reviews will take place only at the end of the Fall semester and at the end of the Spring semester.

*Students who do not present their Final Project in the Public Review for any reason will not graduate and will be required to present their work at the next Public Review.*

## APPENDIX D | GUIDELINES FOR GRADUATE TEACHING ASSISTANTS

### RECRUITMENT AND SELECTION

1. Graduate Teaching Assistants are recruited from the entire group of graduate students, continuing or new, enrolled in graduate programs in the College. Qualified graduate students from other academic units within the University may also serve as teaching assistants in the College.
2. The Directors and Heads in the College are responsible for recruiting and appointing Teaching Assistants for their academic units. Directors and Department Heads may assign other faculty members to assume this responsibility on his/her behalf or to assist him/her in the process.
3. All eligible students may apply for available assistantships by submitting a student application form, available from the School's Secretary, to the School Director.
4. To be eligible for appointment as a Graduate Teaching Assistant, students must be in good academic standing as defined by the Graduate School and must be registered during each semester in which the appointment is in effect. In addition, selection criteria include the applicant's academic and professional experience relative to the particular teaching responsibility, previous teaching experience if any, oral and visual communication skills, performance in course work, resourcefulness, and maturity. Financial need may be considered also.

### ORIENTATION, TRAINING AND SUPERVISION

1. The School Head will designate a Faculty Supervisor who is responsible for the orientation and training of each Graduate Teaching Assistant. Typically, the Faculty Supervisor is experienced in the course to which the Teaching Assistant is assigned and may in fact be its principal instructor. The Faculty Supervisor will provide the Teaching Assistant with appropriate teaching materials and written instructions as to the content and operation of the course. The Faculty Supervisor will meet with the Teaching Assistant regularly to provide assistance and training and will observe the Teaching Assistant in his/her teaching performances as required (but no less than three times each semester) to determine if the Teaching Assistant is performing satisfactorily. Appropriate feedback in oral and written form should be communicated to the Teaching Assistant after each observation.
2. All Graduate Teaching Assistants are required to attend the Teaching Effectiveness Workshop conducted each fall by the University Teaching Effectiveness and Evaluation Committee or an approved substitute. Participation at the workshop contributes to the orientation and training required of teaching assistants by the Criteria for Accreditation of the Commission on Colleges of Southern Association of Colleges and Schools as well as UNC General Administration Memorandum #349.
3. All Graduate Teaching Assistants are urged to review a copy of the NCSU Teachers' Handbook which is available at the School of Architecture offices.

### EVALUATION AND REAPPOINTMENT

1. The Faculty Supervisor is responsible for evaluating the performance of assigned Teaching Assistants. The evaluation shall be in written form utilizing a standard College format and shall be submitted to the School Head at the end of each semester. One copy shall go to the Teaching Assistant and another copy shall be placed in the Teaching Assistant's file.

2. Teaching Assistants will be considered for reappointment if they satisfy the prescribed eligibility standards and if their performance evaluation is satisfactory. There is no commitment on the part of the School, however, to reappoint a Teaching Assistant beyond the terms of the initial appointment even if the performance is satisfactory. Availability of funding, withdrawal of a course from the teaching schedule, availability of better qualified applicants, or other considerations may prevent the reappointment.
3. Teaching Assistants are required to prepare and present to the Faculty Supervisor, with copy to the School Head, a brief written assessment of accomplishments, problems encountered, and suggestions for improving the course at the end of each semester.
4. Termination of Assistantship. Termination of a teaching assistantship is a serious step and will be taken only when other measures have been exhausted. A teaching assistantship can be terminated before the appointment period has been completed only when the Teaching Assistant's performance is evaluated to be seriously deficient or negligent by the Faculty Supervisor and confirmed by the School Head. Grounds for such evaluation would include lack of preparation for class, unexcused absences, inappropriate behavior in class, or other such serious violations of academic behavior. Notice of an impending termination will be given in writing to the Teaching Assistant by the School Head one week in advance of its effective date. The affected Teaching Assistant may appeal to the Dean of the Graduate School.

#### RIGHTS AND RESPONSIBILITIES

1. The Graduate Teaching Assistant retains all the rights and privileges available to all graduate students at NCSU.
2. General responsibilities shall be defined in the letter of appointment sent to the Teaching Assistant by the School Head. Acceptance of the Teaching Assistantship is evidence of agreement to the terms outlined in the letter. When appropriate, the general responsibilities may be augmented by a detailed written outline of responsibilities, prepared by the Faculty Supervisor in consultation with the Teaching Assistant and signed by the Teaching Assistant, Faculty Supervisor and the School Head.