

2012-2013 LONG SIGNATURE SHEET



UNC CHARLOTTE

Proposal Number: SoA 5-7-12

Proposal Title: Addition of a New Track within the Master of Architecture Program

Originating Department: School of Architecture

TYPE OF PROPOSAL: UNDERGRADUATE _____ GRADUATE X UNDERGRADUATE & GRADUATE _____
 (Separate proposals sent to UCCC and Grad. Council)

DATE RECEIVED	DATE CONSIDERED	DATE FORWARDED	ACTION	SIGNATURES
10-24-12	10-24-12	10-24-12	Approved	<u>DEPARTMENT CHAIR</u> [print name here:] Chris Jarrett
10-26-12	10-26-12	10-26-12	Approved	<u>COLLEGE CURRICULUM COMMITTEE CHAIR</u> [print name here:]
			Approved	<u>COLLEGE FACULTY CHAIR (if applicable)</u> [print name here:]
10-29-12	10-29-12	10-29-12	Approved	<u>COLLEGE DEAN</u> [print name here:] Ken Lambla
			Approved	<u>GENERAL EDUCATION</u> (if applicable; for General Education courses) [print name here:]
			Approved	<u>UNDERGRADUATE COURSE & CURRICULUM COMMITTEE CHAIR</u> (for undergraduate courses only)
11-20-12	12-4-12	12-7-12	Approved	<u>GRADUATE COUNCIL CHAIR</u> (for graduate courses only) [print name here:]
				<u>FACULTY GOVERNANCE ASSISTANT</u> (Faculty Council approval on Consent Calendar)
				<u>FACULTY EXECUTIVE COMMITTEE</u> (if decision is appealed)

I. HEADING AND PROPOSAL NUMBER

University of North Carolina at Charlotte

Revised Graduate: Master of Architecture Curriculum

Course and Curriculum Proposal from School of Architecture

“Addition of a New Track within the Master of Architecture Program”

II. CONTENT OF PROPOSALS

A. PROPOSAL SUMMARY AND CATALOG COPY.

1. SUMMARY. The School of Architecture proposes to add a new research track to the existing Master of Architecture curriculum.

2. PROPOSED CATALOG COPY.

This proposal would require the following changes to the catalog description of the Master of Architecture program curriculum. Additions are shown by highlight, deletions by ~~strike-out~~.

The Master of Architecture degree (MArch) is comprised of three tracks: 1) the three-year accredited MArch I track, which includes one summer session, accommodating students whose previous degree is outside the field of architecture; 2) the two-year accredited MArch II track serving students who have already completed a four-year degree program in architecture at a National Architectural Accrediting Board (NAAB) accredited institution; and (3) the MArch III track serving the needs of research-focused students who wish to collaborate with the research centers within the SoA. *The MArch III track is not accredited by NAAB*, and is primarily intended for students who already possess accredited degrees.

The courses and options within the MArch I and MArch II tracks are similar, but the advanced standing of MArch II students allows them to complete the degree requirements in two years. Students in these tracks must complete a comprehensive design studio and a thesis project under the advisement of a faculty committee.

The curriculum of the MArch III track is specifically focused on an intensive research agenda within one of the research centers with the School; students are admitted to a specific concentration within the MArch III.

MArch II students who wish to combine their professional architecture studies with graduate work in Urban Design for a dual degree of MArch/M.U.D completed in three calendar years, including a summer studio spent in a foreign country.

Full-time academic status is expected in all programs.

The MArch III Track requires that students demonstrate evidence of potential to conduct research within one of the research centers within the SoA; the goal of this program is to involve each student in on-going collaborative research with faculty. The program involves three primary phases: 1) a two semester methods sequence which introduces students to a common set of procedures; 2) a six course sequence of specialized courses in the research area; and 3) a thesis sequence focused on developed, original research. Students who are admitted to the MArch III

Track are admitted into a specific *concentration* within the Track, and are required to meet all academic standards and curriculum requirements of that *concentration*.

Program Accreditation

National Architectural Accrediting Board

The School of Architecture maintains accredited status through the National Architectural Accrediting Board, which reviews the curriculum, facility, faculty, and program resources annually. (The MArch I and MArch II programs are fully accredited, but *the MArch III program, because of its research focus, is not an accredited program.*) The NAAB conducts an intensive site visit every six years. The School has maintained full accreditation standards for the MArch I and MArch II programs as prescribed by this board and includes the requisite statement:

B. JUSTIFICATION.

1. The current Master of Architecture curriculum is focused on meeting the National Architectural Accrediting Board (NAAB) requirements for accredited degrees. These students are enrolled in either the **Master of Architecture I** track (for students with non architectural four year degrees) or the **Master of Architecture II** track (for students with four year degrees from accredited programs.)

However, we have often enrolled students who already have accredited degrees, and wish to pursue specialized research within the SoA. We are currently forced by the lack of an appropriate research track to handle each student's curriculum in an ad hoc fashion.

Research has become increasingly important to contemporary practice. To more precisely gauge that role, we conducted a poll in November of 2011 of forty-four large regional and national architecture firms; twenty-three responses were received. The responses were overwhelmingly positive regarding the prominent role of research.

- Of the 23 respondents, over 90% [91.3%] agreed that research will become an increasingly important aspect of professional architectural practice. More than 1/3 of the respondents [34.78%] strongly agreed.
- Almost three-quarters [73.91%] of the respondents agreed that a candidate with a research focused, post-professional architecture degree would likely be considered for employment at my firm. More than one-fifth [21.74%] of the respondents strongly agreed.

Therefore, we propose to create a new **Master of Architecture III** track.

We will create this track using the existing research centers with the SoA, utilizing many of the elective courses already offered at the school.

All students in the MArchIII program will be required to take a two-semester methods sequence and a two-semester thesis. Directed Electives will be selected or developed from the research centers within the SoA.

Master of Architecture III Curriculum

ARCH 5611	Research Methods I	(3 Hours)	
ARCH 5612	Research Methods II	(3 Hours)	
ARCH 6xxx	Architectural Directed Elective	(3 Hours)	
ARCH 6xxx	Architectural Directed Elective	(3 Hours)	
ARCH 6xxx	Architectural Directed Elective	(3 Hours)	ARCH 6xxx
	Architectural Directed Elective	(3 Hours)	
ARCH 6xxx	Architectural Directed Elective	(3 Hours)	
ARCH 6xxx	Architectural Directed Elective	(3 Hours)	
ARCH 7901	Thesis I	(3 Hours)	
ARCH 7902	Thesis II	(3 Hours)	
Total		(30 hours)	

The MArchIII track is an advanced, focused curriculum guided by the research centers within the SoA; the Digital Arts Center, the Center for Integrative Technologies, and the Design and Society Research Center.

Each proposed *concentration* within the MArch III track must be submitted to the curriculum committee, faculty and director of the SoA.

Submissions for a *concentration* must include

- The proposed length of the concentration.
- Any additional faculty, staff or facility resources needed for implementation of the concentration.
- All degree requirements for candidates for admission to a concentration.
- A specific and coordinated set of directed electives. Up to two additional electives (6 credit hours) can be proposed in addition to the minimum, for a total of 36 credit hours.

Students will be accepted into a specific curricular option within the MArchIII program, and will be required to meet all requirements of that option.

2. All prerequisites/corequisites for course will be included in the curricular map generated by research centers.
3. All elective courses will be open only to graduate students, but will include both MArch III students and advanced students within other tracks of the graduate program.
4. As noted above, this will allow the SoA to effectively serve the needs of research oriented graduate students who wish to concentrate their studies on a particular topic, and to integrate them into on-going research.
5. All transcripts for students in Track III of the Master of Architecture program will include the following introduction:
 “The Master of Architecture III degree is a non-professional, research focused program. This track of the Master of Architecture is not reviewed or accredited by the National Architectural Accreditation Board.”

C. IMPACT.

1. The MArch III track is primarily designed to serve the needs of current and potential students who wish to focus on advanced research.
2. This proposal will have a small effect on the other course and curricula; the only marginal change will be a slight increase in elective courses open to other students.
 - a. The four unique courses to this program, Methods I and II, and Thesis I and II, will each be offered once a year.
 - b. This proposal will increase slightly the number of courses offered to graduate students in all tracks of the program.
 - c. We anticipate that the enrollment in each curricular option within the MArchIII track will be approximately 8.
 - d. We do not anticipate that will affect enrollment in other course because we will be serving mostly new students.
 - f. See item 2 above for changes to catalog copy.

D. RESOURCES REQUIRED TO SUPPORT PROPOSAL.

1. Personnel

- a. Because of the small number of students, sufficient room in current elective courses exists, and some sections of Methods I and II may be included in the elective courses offered to other graduate students. Neither of these should result in the need for new teaching faculty. Thesis I and II will be small sections, and can be taught by faculty in lieu of a seminar assignment. This may require hiring of faculty, either full or part time, to teach additional electives.
- b. Qualified faculty members interested in teaching the course(s).

Nick Senske

Chris Beorkrem
Eric Sauda
Dr. Charles Davis
Dale Brentrup
Ben Futtrell
Thomas Gentry
David Thaddeus
Dr. Mona Azabayjani
Dr. Kyoung-Hee Kim

2. Physical Facility

No new space will be required for this proposal

3. Equipment and Supplies

No new equipment is need for this proposal.

4. Computer

No new computing resources are needed for this proposal.

5. Audio-Visual

None

6. Other Resources

None

7. Indicate source(s) of funding for new/additional resources required to support this proposal.

E. CONSULTATION WITH THE LIBRARY AND OTHER DEPARTMENTS OR UNITS

1. Library Consultation

Attached

2. Consultation with other departments or units

None

F. INITIATION AND CONSIDERATION OF THE PROPOSAL

1. Originating Unit

- Approved by the Curriculum Committee of the School of Architecture on
- Approved by the Faculty of the School of Architecture on

2. Other Considering Units

None

G. ATTACHMENTS

1. Course Syllabi

2. Consultations

ARCH 5611
Research Methods I

Course Description

The aim of this course is to provide students with a rigorous introduction to research methods in architecture. The focus of the course is research methods that are directly applicable to the concentration within the MArch III. Work in this course will rely on focused readings and discussion by the class.

Prerequisites Admission to the MArch III program

Objectives

Upon completion of the course, a student should:

- Understand the range of relevant research methods.
- Be able to identify, structure and use an array of methods toward specific issues
- Understand the strengths and limitations of each research method

Instructional Method

This course is structured as a seminar with a lecture / discussion format.

Work in this course will rely on focused readings and discussion by the class.

Evaluation

40% Class assignments
20% Individual Project
20% Class participation
20% Final Exam

Resources

There is no primary textbook for this course. Readings will come from a variety of sources including book chapters, journal articles, and online materials.

Specify policies that apply to this course

University policies on academic integrity, attendance and grading policy will apply to this course.

Probable textbooks or resources

Varies based on concentration.

Topical outline of course content

Varies based on concentration.

ARCH 5612
Research Methods II

Course Description

The aim of this course is to continue the rigorous introduction to research methods in architecture. The focus of the course is on research methods that are aligned with the specific research interests of each student. Work in this course will rely on focused readings and discussion by the class.

Prerequisites

Successful completion of ARCH 5611: Research Methods I

Objectives

Upon completion of the course, a student should:

- Be able to describe a set of methods focused on a topic of interest
- Be able to articulate the use of these methods within a larger research community
- Understand the strengths and limitations of alternate research method

Instructional Method

This course is structured as a seminar with a lecture / discussion format. Students develop an understanding of methodology leading toward an individual thesis.

Evaluation

60% Individual Project
20% Class participation
20% Class Assignments

Resources

There is no single textbook for this course. Readings will come from a variety of sources including book chapters, journal articles, and online materials.

Specify policies that apply to this course

University policies on academic integrity, attendance and grading policy will apply to this course.

Probable textbooks or resources

Varies based on concentration

Topical outline of course content

Varies based on concentration.

ARCH 7901 Thesis I

Course Description

The Thesis allows students to select a focus of research based upon their previous experiences and coursework. The intent will be to develop a hypothesis and develop implementation of specific research methods suitable to test it.

Pre- or Co-requisites

Completion of all course work within the MArch III curriculum

Objectives

Expectations for learning and performance within this course are based on the development of a novel set of questions to be tested through critical examination of a research project. Students should demonstrate understanding of the concepts and principles associated with their thesis topic, and should be capable of assembling a cohesive document demonstrating knowledge of the background information, representing the outcomes of their work, and drawing conclusions relative other work in the field.

Instructional Method

This semester will be defined by directed independent research. Within a series of objectives developed by the student, he/she will be required to show continued development of both background research and a suitable method of inquiry. A Thesis Committee comprised of a faculty from the School of Architecture and related disciplines will direct the student's work.

Means of student evaluation

The student will be evaluated through a series of four reviews spaced through the semester and two submittals of a thesis document, a draft at midterm and a final at the end of the semester.

Specify policies that apply to this course:

University policies on academic integrity, attendance and grading policy will apply to this course.

Probable textbooks or resources

Varies based on research topic

Topical outline of course content

Varies based on research topic.

ARCH 7902 Thesis II

Course Description

The Thesis allows students to select a focus of research based upon their previous experiences and coursework. The intent of this course is to complete an independent research project, defend it to a thesis committee and prepare it for publication.

Pre- or Co-requisites

Completion of Thesis I

Objectives

Expectations for learning and performance within this course are based on the development of a complete research project. Students should demonstrate understanding of the concepts and principles associated with their thesis topic, and should be capable of assembling a cohesive document demonstrating knowledge of the background information, representing the outcomes of their work, and drawing conclusions relative to other work in the field.

Instructional Method

This semester will be a continuation of directed independent research. A Thesis Committee comprised of a faculty from the School of Architecture and related disciplines will direct the student's work.

Means of student evaluation

The student will be evaluated by a written thesis document, an oral defense and the preparation of a manuscript for publication.

Specify policies that apply to this course:

University policies on academic integrity, attendance and grading policy will apply to this course.

Probable textbooks or resources

Varies based on research topic

Topical outline of course content

Varies based on research topic.



J. Murrey Atkins Library

Consultation on Library Holdings

To: Eric Sauda
From: Alison Bradley
Date: 4/19/12
Subject: MArch III Curriculum track

Summary of Librarian's Evaluation of Holdings:

Evaluator: Alison Bradley Date: 4/19/12

Check One:

- 1. Holdings are superior
2. Holdings are adequate
3. Holdings are adequate only if Dept. purchases additional items.
4. Holdings are inadequate

Comments:

The proposed MArch III track envisions a heavy research focus within the existing research centers at the School of Architecture. Assessing the adequacy of the Library's holding will depend on the sequence of concentrations that will be offered under this Track. If the School of Architecture commits to supporting the subject areas established for students on the specific curricular tracks established within the existing budget allocations for firm-order and approval plan purchases, the library should be able to adequately support student research for this degree program. As always, students will have access to databases such as the Avery index, Art and Architecture Complete, JSTOR and ArtSTOR, as well as the Atkins Library and Hight Architecture Library collections and the School of Architecture's Visual Resources Collection. Materials may also be borrowed via interlibrary loan from other institutions.

Alison Bradley

Evaluator's Signature

4/19/12

Date

Architecture

- **Master of Architecture**
- **Master of Urban Design**
- **Master of Architecture and Urban Design Dual Degree**

School of Architecture

Storrs Architecture Building

704-687-0101

coaa.uncc.edu/Academics/School-of-architecture/

School of Architecture Directors

Christopher Jarrett, Director

Kelly Carlson-Reddig, Associate Director

Master of Architecture Program Coordinator

Peter Wong

Master of Urban Design Program Director

David Walters

Graduate Faculty

Mona Azarbayjani, Assistant Professor

Jeff Balmer, Assistant Professor

Chris Beorkrem, Assistant Professor

Dale Brentrup, Professor

Kelly Carlson-Reddig, Associate Professor

Charles Davis II, Assistant Professor

Thomas Forget, Assistant Professor

José L.S. Gámez, Associate Professor

Thomas Gentry, Assistant Professor

Lee Gray, Associate Professor, Associate Dean

Christopher Jarrett, Professor, Director

Kyoung-hee Kim, Assistant Professor
Ken Lambla, Professor, Dean
Zhong-jie Lin, Associate Professor
Emily Makas, Assistant Professor
John Nelson, Associate Professor
Deb Ryan, Associate Professor
Eric Sauda, Professor
Nicholas Senske, Assistant Professor
Greg Snyder, Associate Professor
Michael Swisher, Associate Professor
David Thaddeus, Professor
David Walters, Professor
Betsy West, Associate Professor
Peter Wong, Associate Professor

The School of Architecture at UNC Charlotte offers a fully accredited program recognized for the outstanding quality of its faculty and students, its commitment to outreach and community involvement, and the quality and extent of resources offered through its labs, classrooms, and studios. Students organize their study around concentrations in Urbanism, Technology, or Design, Theory & Practice. Each area of study is well supported not only by coursework but also by travel and research opportunities. The College participates in several international exchange programs and offers summer travel and study programs in Spain, Italy, Canada, Australia, Great Britain, and China to broaden students' global understanding and further inform their work. The specialized study of urban design is also focused under the auspices of either a separate but interrelated graduate program in that discipline or a dual degree program that combines the two-year Master of Architecture program with graduate study in Urban Design. The Urban Design Program is based in UNC Charlotte's Center City Building in the heart of Uptown Charlotte.

Each curricular program offers each student significant individual time and attention, an engaged and accessible faculty, and a wealth of diversity through both the interests of the faculty and the varied background of the graduate students themselves. Because the College stresses the importance of 'making' in addition to thinking, the wood, metal, computer, and digital fabrication workshops are all equipped with the latest high performance equipment to enable students to both explore and embody their design ideas. Contact with the profession is also emphasized and the School is frequently enriched by the expertise of local practitioners. An extensive lecture series involving nationally and internationally recognized designers and theorists further enhances the educational environment and exposure to contemporary schools of thought.

MASTER OF ARCHITECTURE

The Master of Architecture degree (MArch) ~~serves three groups of students~~—is comprised of three tracks: 1) the three-year MArch I curriculum, which includes one summer session, accommodates students whose previous degree is outside the field of architecture; 2) the two-year MArch II curriculum serves students who have already completed a four-year degree program in architecture at a National Architectural Accrediting Board (NAAB) accredited institution; and (3) ~~MArch II students who wish to combine their professional architecture studies with graduate work in Urban Design for a dual degree of MArch/M.U.D completed in three calendar years, including a summer studio spent in a foreign country.~~ the MArch III track serving the needs of research-focused students who wish to collaborate with the research centers within the SoA. *The MArch III track is not accredited by NAAB, and is primarily intended for students who already possess accredited degrees.*

The courses and options within each program are similar, but the advanced standing of MArch II students allows them to complete the degree requirements in two years. Students in both programs must complete a comprehensive design studio and a thesis project under the advisement of a faculty committee. ~~Full-time academic status is expected in all programs.~~

The curriculum of the MArch III track is specifically focused on an intensive research agenda within one of the research centers with the School; students are admitted to a specific concentration within the MArch III.

MArch II students who wish to combine their professional architecture studies with graduate work in Urban Design for a dual degree of MArch/M.U.D completed in three calendar years, including a summer studio spent in a foreign country.

Full-time academic status is expected in all programs.

The MArch I Curriculum involves three primary components: 1) the first year (including a summer session prior to the first fall of enrollment) focuses on establishing a strong foundation in fundamental design skills, architectural history and theory, building-to-site relationships, and introductory building technologies; 2) the second year focuses on comprehensive architectural design and its relationship to building systems as well as advanced studies in history, theory, and building technology; and 3) the third year is focused on the student's individual final project/thesis research.

The MArch II Curriculum is tailored through the advising process to the

previous educational background of the students and to their individual professional and research goals. The program involves two primary components: 1) the first year focuses on comprehensive architectural building design and topical studios with advanced studies in the area of concentration; and 2) the second year is dedicated to continued study within the area of concentration as well as final project/thesis research.

The MArch III Track requires that students demonstrate evidence of potential to conduct research within one of the research centers within the SoA; the goal of this program is to involve each student in on-going collaborative research with faculty. The program involves three primary phases: 1) a two semester methods sequence which introduces students to a common set of procedures; 2) a six course sequence of specialized courses in the research area; and 3) a thesis sequence focused on developed, original research. Students who are admitted to the MArch III Track are admitted into a specific *concentration* within the Track, and are required to meet all academic standards and curriculum requirements of that *concentration*.

The MArch/M.U.D Dual Degree is organized by integrating the MArch II curriculum with the Master of Urban Design curriculum to provide the option of a 3- year dual degree. The Urban Design program is housed off-campus in the University's City Center Building. Most of the urban coursework is taught in this new Uptown location, utilizing the City of Charlotte itself as a laboratory for urban design exploration and research.

Admission Requirements

In addition to the admissions materials required by the Graduate School, the School of Architecture requires the submission of a portfolio of creative work. Applicants to the MArch I curriculum should submit examples of work that offer evidence of creativity, self-motivation and critical appraisal. Such examples are not expected to be architectural in nature. Visual work such as painting, sculpture, furniture making, photography, etc. are acceptable, as are fiction writing, poetry, and any other reasonable evidence of sustained creative endeavor. Applicants to the MArch II curriculum may offer similar evidence of any kind of creative endeavor but must also offer significant evidence of a mastery of architectural skill and knowledge. Applicants for the dual MArch/M.U.D degree must meet the requirement for MArch II curriculum plus clear evidence of an interest in urban studies.

The following requirements are expected of applicants to the MArch I and/or MArch II curricula:

- 1) Students applying to the MArch II curriculum who have completed the four-

- year professional track of the Bachelor of Arts in Architecture from UNC Charlotte must have an undergraduate degree GPA of 3.25 or above to receive automatic consideration for admission.
- . 2) Students applying to the MArch I curriculum with a bachelors from a discipline other than architecture must complete their undergraduate degree with a minimum 3.0 GPA overall.
 - . 3) Students apply to the MArch I curriculum are expected to have completed introductory, college-level physics and pre-calculus courses.
 - . 4) All applicants (including students eligible for automatic consideration for admission) must fulfill the University's Graduate School application requirements and submit a copy of their Letter of Intent, a current curriculum vitae, and a portfolio of creative work at the time of their application.

Students who do not meet the grade point average requirements noted above may still submit an application for admission to both programs but admission will be weighed against those meeting these requirements.

Degree Requirements

Concentrations within the MArch I and MArch II Curricula At the end of the third semester of study, MArch I students have the option to choose an area of concentration that will guide their advanced studies. MArch II students are required to choose an area of concentration during their first semester. Concentrations include: 1) Architectural Design, Theory, & Practice, 2) Urbanism, and 3) Architectural Technology. Concentration coursework is comprised of three elective courses (selected by the student from a larger set of eligible courses) and one elective studio with a focus similar to that of the concentration (offered as a topical studio). Concentration coursework is expected to support and culminate in thesis and/or capstone projects. The concentrations from which students can choose are described below:

1. Architectural Design, Theory, & Practice

This concentration focuses on a sophisticated and detailed study of building and site design arising from the re-presentational methods intrinsic to architecture. The areas of focus include: graphic description, historical and/or theoretical inquiries, as well as digital design and fabrication. This concentration includes both investigation and criticism of contemporary practice and practitioners as it pertains to the understanding, design, and making of architecture.

2. Urbanism

This concentration focuses on the critical role of architecture in the city - the process and specific intent of physical intervention in urban landscapes and

infrastructures. Through the design of groups of buildings as well as larger scale urban areas, issues of policy, politics, finance, planning, place, and culture are introduced as part of the essential conception and history of the city fabric. This concentration in urbanism is supported by the Master of Urban Design program; many courses are provided in the University's off-campus Center City building.

3. Architectural Technology

This concentration focuses on study and experimentation addressing emerging issues of sustainable design and the creative development of building envelopes and systems that utilize both new and traditional materials, technology, and construction methods in innovative and beautiful ways. Seeking to explore the historical as well as contemporary realms of thermal, tactile and visual issues embedded in this field, students address appropriate material selection, methods of daylighting, passive and active systems for heating and cooling, etc. with consideration of both qualitative and quantitative outcomes.

Master of Architecture I Curriculum

The MArch I curriculum requires a minimum of 96 hours to be completed during three academic years and one summer session.

Year One

Summer (6 hours)

ARCH 6100 Design Studio: Basics (3)

ARCH 6601 Ideas in Architecture (3)

Fall (15 hours)

ARCH 6101 Design Studio: Fundamentals (6)

ARCH 5201 Architectural History I: Prehistory-1750 (3)

ARCH 5301 Material and Assembly Principles (3)

ARCH 6602 Representation I: Fundamentals (3)

Spring (15 hours)

ARCH 6102 Design Studio: Fundamentals (6)

ARCH 5202 Architectural History II: 1750-Present (3)

ARCH 5302 Environmental Systems Principles (3)

ARCH 6603 Representation II: Digital Fundamentals (3)

Year Two

Fall (15 hours)

ARCH 7101 Design Studio: Topical (6)

ARCH 5203 Architectural History III: Survey of Contemporary Theory (1950–Present) (3)

ARCH 5303 Structural Principles (3)

ARCH 5604 Computational Methods (3)

Spring (15 hours)

ARCH 7102 Design Studio: Comprehensive (6)

ARCH 5304 Structural Systems (3)

ARCH 7201 Design Methodologies (3)

ARCH 6050 Architectural Elective (3)

Summer (3-6 hours - optional)

ARCH 6050 Architectural Elective (3)

ARCH 7120 Graduate Summer International Study (3)

ARCH 7950 Graduate Summer Research Study (3)

Year Three

Fall (15 hours)

ARCH 7103 Design Studio: Topical (6)

ARCH 7202 Final Project/Thesis Document (3)

ARCH 5305 Building Systems Integration (3)

ARCH 6050 Architectural Elective (3)

Spring (15 hours)

ARCH 7104 Final Project/Thesis Studio (6)

ARCH 5206 Professional Practice (3)

ARCH 5605 Computational Practice (3)

ARCH 6050 Architectural Elective (3)

Note: MArch I candidates, as an option, may pursue an area of concentration (three concentration electives are required). Qualifying concentration electives are described in the Course Descriptions section below.

Master of Architecture II Curriculum

The MArch II curriculum requires a minimum of 60 credit hours to be completed during two academic years. If applicants accepted to the MArch II curriculum are evaluated and found deficient in entry-level competencies, they will be required to enroll in additional coursework beyond the 60 credits to complete their degree. Below is a list of expected entry-level competencies.

The combined dual degree of Master of Architecture and Master of Urban Design (MArch/M.U.D) requires a minimum of 74 credit hours to be completed in three calendar years of full-time study, including a summer studio in a foreign country, currently either in China or Great Britain. Details of this dual degree are listed under the following Master of Urban Design section. This three-year dual degree is only available to students in the Master of Architecture II curriculum.

Applicants for this dual degree must meet all the admission requirements and entry-level competencies for the MArch II curriculum.

Expected Entry-Level Competencies for MArch II Candidates:

- 1) A minimum of six semesters of architectural design studios;
- 2) A minimum of three semesters of architectural history and/or theory courses;
- 3) A minimum of four semesters of building technology courses equivalent to the following UNC Charlotte's School of Architecture courses:

ARCH 5301 Material and Assembly Principles (3)

ARCH 5302 Environmental Systems Principles (3)

ARCH 5303 Structural Principles (3)

ARCH 5304 Structural Systems (3)

To ensure that incoming students are evaluated appropriately, the School of Architecture requires candidates for the MArch II curriculum to furnish the Architecture Graduate Admissions Committee and Graduate Program Coordinator relevant course descriptions and syllabi of all architecture courses passed and completed which may satisfy entry-level competencies. The following curriculum is modeled for students accepted to the program who have satisfied all entry-level competencies.

Master of Architecture II Curriculum

Year One

Fall (15 hours)

ARCH 7101 Design Studio: Topical (6)

ARCH 5203 Architectural History III: Survey of Contemporary Theory (1950–Present) (3)

–OR– ARCH 5215 AH Elective (3)

ARCH 5305 Building Systems Integration (3)

ARCH 5604 Computational Methods (3)

Spring (15 hours)

ARCH 7102 Design Studio: Comprehensive (6)

ARCH 7201 Design Methodologies (3)

ARCH 6306 Technology Topic (3)

ARCH 6050 Architectural Elective (3)

Summer (3-6 hours - *optional*)

ARCH 6050 Architectural Elective (3)

ARCH 7120 Graduate Summer International Study (3)
ARCH 7950 Graduate Summer Research Study) (3)

Year Two

Fall (15 hours)

ARCH 7103 Design Studio: Topical (6)
ARCH 7202 Final Project/Thesis Document (3)
ARCH 6307 Technology Topic (3)
ARCH 6050 Architectural Elective (3)

Spring (15 hours)

ARCH 7104 Final Project/Thesis Studio (6)
ARCH 5206 Professional Practice (3)
ARCH 6050 Architectural Elective (3)

Note: MArch II candidates are required to pursue an area of concentration. Three (3) qualifying ARCH 6050 courses are mandatory to satisfy the required concentration sequence. See Course Descriptions section below.

Requisite & Capstone Experiences

Comprehensive Design Project

The Comprehensive Design Project (ARCH 7101) serves as the requisite studio experience that bridges between foundational studios and advanced studios for MArch I students. The Comprehensive Design Project serves as the point of entry into the program for MArch II students. Taken in the fourth semester of enrollment for MArch I students and in the first semester of enrollment for MArch II students, the Comprehensive Design Project is defined as an architectural building design project that comprehensively demonstrates the student's ability to conceptualize, prepare, organize, and design a building having a specific programmatic type. All students must demonstrate comprehensive design competency before they enroll in Topical studios.

Final Project and Thesis Options

The normative capstone project for both MArch I and MArch II students occurs in the final year. For MArch I and MArch II students, this is typically defined as an architectural design project that demonstrates the students' ability to independently identify and engage a specific set of issues, a building type, and a site.

As an alternative option to a final design project, an architectural thesis may be proposed. This is defined as an architectural research project that engages and explicates primary source material leading to project work possessing an original argument. This second type of project may include design-related materials as part

of the final submission. Primary source material from data and information gathered from original texts and documents, interviews, raw data resulting from experiments, demographic data, etc. shall be a part of the project. The thesis should claim an original argument that leads to creative and/or research-oriented activities in the final semester. Thesis students identify the issue(s) to be engaged and the research and/or design methods through which this engagement will take place. The student works independently with a committee during the final semester of study to complete the thesis.

All students must demonstrate comprehensive design competency before they engage a the final year of study. For students in the MArch/M.U.D dual degree program, the thesis and preceding Final Project/Thesis Document course (ARCH 7202) must have a clear focus on the integration of architectural and urban design issues.

A Final Design Project or a Thesis Project course of study is determined at the beginning of a student's final year of his/her program in ARCH 7202.

Graduate Advising

A critical component of any successful graduate program is academic advising and guidance during the course of a student's program of study. The primary advisor for all graduate students in the School of Architecture will be the Associate Director, in consultation with the appropriate Graduate Coordinator/Director. Students entering their final year will be asked to complete a Plan of Study and identify committee members from the faculty to serve as advisors for their thesis.

Transfer Credit

Transfer credit is normally limited to a maximum of six (6) hours of graduate credit. Under special circumstances, a greater number of hours may be transferred if a student can demonstrate that the courses to be transferred meet or exceed the content and rigor of graduate curricula offered by the School of Architecture.

Waiver Credit

Waiver credit may be allowed if a student can demonstrate that a course or courses taken at the post-undergraduate level that equals or exceeds in both content and rigor of a course or courses required in the graduate curriculum. Grades received for such courses must be B or above. In such cases, credit will be permitted by examination. If a required course in the curriculum is waived, the student will be allowed to fill those credit hours with another course as advised by the Associate Director, in consultation with the Graduate Coordinator/Director.

Committees

For candidates engaging a thesis research project, each student identifies three (3) School of Architecture faculty members who will contribute to his or her interests, research, and final project. In addition, one (1) committee member from outside the School of Architecture faculty is required. Additional individuals relevant to a student's final project may also participate as ex-officio members.

The members of the committee should offer specific areas of expertise and insight relative to the proposed project. Members of this committee should be involved with the project beginning with the preparation of the research document undertaken in ARCH 7202 (Final Project/Thesis Document) in the Fall semester.

The responsibility of each committee member involves the following:

- . 1) Review and provide feedback on three (3) successive versions of the student's written research document produced in ARCH 7202 (Final Project/Thesis Document)
- . 2) Be present and provide feedback at all public presentations (4-5) conducted in ARCH 7104 (Final Project/Thesis Studio)
- . 3) Provide feedback on other occasions as requested by the student
- . 4) Meet with instructors of ARCH 7202 and ARCH 7104 as required for coordination
- . 5) Deliberate with other committee members on the report concerning degree conferral

Application for Degree

In order to meet UNC Charlotte's Graduate School requirements for degree candidacy, all graduate students must receive a written certification from their department confirming successful project completion. This report requires approvals from members of each student's committee as well as an endorsement from the Chair of Instruction. The completion of this report results in the granting of the degree. In addition, each student should make application for his/her degree by completing the online Application for Degree through Banner Self Service no later than the filing date specified in the University Academic Calendar.

Research and Off-Campus Opportunities

The opportunity exists for MArch II students who take ARCH 7120 or ARCH 7950 to engage directed research with a professor or one of the School of Architecture's official research centers. There are three study options that students may engage:

1. Funded Research

Students may elect to receive course credit for work performed with faculty and/or other researchers who are conducting professional, scholarly, applied, and/or

creative research within specialized fields of architecture theory, history, technology, etc. Current research initiatives include lighting and energy studies, building envelope studies, urban studies, design/fabrication, and design/theory studies. These activities are engaged through the Lighting & Energy Technology Lab, the Digital Arts Center, the Charlotte Community Design Center, and through individual faculty research projects and ongoing architectural practice. Students may also complete the requirements by securing their own grants and funding to study a well-defined and focused architectural issue. Student initiated research of this type must be approved both by the student's Academic Advisor and by the Graduate Program Coordinator.

2. Independent Design

Students may elect to receive architectural elective credit for a class by completing and entering a regional, national, or international architectural competition. This option is intended to further students' study of ideas and issues relevant to their thesis project and area of Concentration.

3. Off-Campus and/or International Study

Students may elect to enroll in School of Architecture off-campus or international study programs, and/or enroll in similar programs offered by other NAAB accredited institutions. The College has long-standing study/travel programs in Italy, Spain, and China. Students have also pursued study opportunities in the Netherlands, Australia, Canada, etc. Glenn Murcutt's Master Class (Australia) and Brian MacKay Lyons' Ghost Project (Canada) are among the international study options that students may undertake.

Assistantships, Tuition Differentials, and Scholarships

A number of teaching and research assistantships, scholarships, in-state and non-resident new master's student tuition awards, and graduate tuition assistantship program support (GASP), are available to both high performing MArch I and MArch II candidates. Awards are based on the applicant's academic merit or promise of academic merit, and/or on demonstration of need. Tuition awards are typically paired with teaching and/or research assistantship stipends. School of Architecture scholarships are also awarded pending a review of student applications to various private endowments. In addition, other awards awarded under independent faculty or research center grants are also available.

Program Accreditation

National Architectural Accrediting Board

The School of Architecture maintains accredited status through the National Architectural Accrediting Board, which reviews the curriculum, facility, faculty, and program resources annually. In addition, the NAAB conducts an intensive site

visit every six years. ([The MArch I and MArch II programs are fully accredited, but the MArch III program, because of its research focus, is not an accredited program.](#)) The School has maintained full accreditation standards as prescribed by this board and includes the requisite statement:

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

Master's 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.

Following the completion of a professional degree program accredited by the NAAB, most states require the future architect to complete an internship working for a registered architect before sitting for the licensing examination. The MArch Program (both the MArch I and MArch II curricula) was granted a full 6-year NAAB accreditation status in 2010. The next formal accreditation review of the School of Architecture's MArch program will be in 2016.

MASTER OF URBAN DESIGN

The Master of Urban Design (M.U.D) degree can be taken as a stand-alone qualification, or may be combined with a Master of Architecture two-year degree for a dual M.Arch/M.U.D degree. Opportunities also exist for students to craft individually approved curricula combining the M.U.D degree with the M.A. in Geography/Community Planning for a dual urban design and planning graduate degree with the Master of Science in Real Estate (M.S.R.E.) for a dual degree in urban design and real estate development.

The stand-alone Master of Urban Design degree (M.U.D) serves two groups of students: (1) Students with an architecture or landscape architecture undergraduate or graduate degree (including a B.Arch five-year degree) and (2) those holding a B.A. or B.S. undergraduate degree or a master's degree from disciplines other than architecture. For those students with an architectural or landscape undergraduate or graduate qualifications, the courses within the program can be completed in one calendar year/three consecutive semesters of full-time enrollment from late August

one year to early August the following year (Fall-Spring-Summer).

For students with undergraduate or graduate degrees in planning or other non-design disciplines, the program begins with an intensive second Summer semester experience in the July preceding enrollment in the Fall semester. Students with an interior design background will be evaluated on an individual basis regarding enrollment in this preparatory summer class.

The M.U.D Program prepares students and professionals to engage complex issues faced by towns and cities across America. The program uses the fast changing Charlotte metropolitan region as its laboratory to provide students with relevant design skills to influence urban life under the pressures of globalization, environmental change, and cultural diversification. To emphasize this global perspective, part of the final Summer semester will be based outside the USA, primarily in China or Europe, involving design problems in an international context and with input from faculty in those countries.

The first semester in the Fall focuses on the fundamental skills and techniques of urban design; the second Spring semester foregrounds issues of urban sustainability, infrastructure, and urban open space, and the third semester during the summer months examines advanced topics of vertical urbanism through complex urban design problems in locations outside the USA. Each semester also includes two seminar courses, some of which comprise individual elective choices from a menu of topics in urban design and urban history and theory.

Students with an undergraduate degree from an accredited architectural program may also apply for a 3-year M.Arch/M.U.D dual degree, combining the two-year Master of Architecture program with the 12-month M.U.D program. Details of this dual degree program are noted below and also in the preceding *Catalog* section regarding the Master of Architecture program.

Admission Requirements

Online applications must be made to the UNC Charlotte Graduate School, either for the stand-alone M.U.D degree or the dual M.Arch/M.U.D degree. This dual degree has its own application option within the online system. Students seeking other dual degree opportunities with programs in other colleges (M.U.D/M.S.R.E. and M.U.D/M.A. in Geography [Community Planning]) should initiate individual counseling with the appropriate Program Coordinators/Directors prior to application and complete separate applications for each degree program. Applicants should study all the varying requirements carefully and should comply with the all the application mandates of the other programs.

In addition to the admissions materials required by the Graduate School, the

School of Architecture requires the submission of a portfolio of creative work. Applicants to the M.U.D program should submit examples of work that offer evidence of creativity, self-motivation and critical appraisal. Such examples do not have to be solely urban design-related, but may also include visual work such as painting, sculpture, furniture making, photography, writing, and other reasonable evidence of their creative abilities. However, the portfolio must include some clear visual and/or written evidence of an interest in urban settings and conditions. Specific admission requirements by the School include:

- . 1) An undergraduate degree with a 2.75 grade point average (GPA) overall, and a junior/senior grade point average of 3.0 overall
- . 2) A Statement of Purpose describing the objectives relative to graduate study
- . 3) Fulfillment of the University's Graduate School application requirements in effect at the time of application

Students who do not meet the GPA requirements noted above may still submit an application for admission; however, this will be weighed against those meeting these requirements.

Students enrolled in the fifth year of the Bachelor of Architecture program at the UNC Charlotte School of Architecture may apply for admission into the M.U.D program for entry after completion of their fifth year. They will need to fulfill all normal application requirements during either the Fall or Spring semesters of their fifth year program and, if admitted to the M.U.D program, can complete a sequence of the B.Arch professional degree plus the M.U.D post- professional qualification in two calendar years.

Recommendation for Automatic Admission

Students applying to the M.U.D program who have completed either the four-year Bachelor of Arts in Architecture or the five-year Bachelor of Architecture from UNC Charlotte must have an undergraduate degree GPA of 3.25 or above to receive a recommendation to the Graduate School for automatic admission.

Master of Urban Design Curriculum

The M.U.D program requires a minimum of 36 hours to be completed (39 hours for non-design based applicants). There are two study options: (1) a full- time program that can be completed in three consecutive semesters (Fall-Spring-Summer), or (2) a part-time option for working professionals that may be completed generally within two years. However, part-time students should note that the foreign-based Summer studio has to be taken as a full-time commitment.

Students enrolled in the dual degree MArch II/M.U.D program complete their extended program in three calendar years of full-time study, including the Summer semester spent abroad in either China or Europe. The dual degree option is only available to full-time students.

A) Full-Time M.U.D. Option Year One

Summer (3 hours)

MUDD 5101 Design Studio: Basics (3) *(For non- design based applicants only. May be waived if determined in the admissions process.)*

Fall (12 hours)

MUDD 6101 Fundamentals of Urban Design Studio (6)

MUDD 5601 Community Planning Workshop (3) MUDD 6205 Topics in Urban History and Theory

Elective (3)

--OR— MUDD 6050 Topics in Urban Design Elective (3)

Spring (12 hours)

MUDD 6102 Urban Open Space and Infrastructure Design Studio (6)

MUDD 5602 Planning, Law, and Urban Design (3) MUDD 6204 Topics in Urban History and Theory

Elective (3) **--OR--** MUDD 6050 Topics in Urban Design Elective (3)

Summer (12 hours)

MUDD 7101 Advanced Vertical Urbanism / Global Urban Design Studio (foreign-based first Summer session) (3)

MUDD 7101 Advanced Vertical Urbanism / Global Urban Design Studio (Charlotte-based second Summer session) (3)

MUDD 6204 Topics in Urban History and Theory Elective (3)

MUDD 6050 Topics in Urban Design Elective (3)

Note: Elective options must contain at least one Urban History and Theory

elective.

B) Part-Time Option

Summer (3 hours)

Summer (9-12 hours)

First Summer session studio must be taken as a full-time load abroad. Second Summer session studio must be taken immediately upon return to Charlotte. Second Summer session elective may be deferred. MUDD 6050 Topics in Urban Design Elective

(integrated with foreign studio) (3) MUDD 6204 Topics in Urban History and Theory

Elective (3)* MUDD 7101 Advanced Vertical Urbanism / Global

Urban Design Studio (foreign-based first Summer

session) (3) MUDD 7101 Advanced Vertical Urbanism / Global

Urban Design Studio (Charlotte-based second Summer session) (3)

**This elective may be deferred to the following Fall for part-time students (as MUDD 6205).*

Fall (3 hours)

Year Three

Year One

MUDD 6205 Topics in Urban History and Theory Elective (3)**

***Seminar to be taken in Fall if MUDD 6204 was not taken in Summer.*

Note: Elective options must contain at least one Urban History and Theory elective.

The curriculum for the dual M.Arch/M.U.D degree is noted below. The curricula for the dual degree opportunities of M.U.D/M.A. Geography (Community Planning) and M.U.D/M.S.R.E. (Real Estate) are developed to suit the individual student interested in these options once the student is accepted onto both programs.

Master of Architecture / Master of Urban Design Curriculum

The dual M.ARCH/M.U.D degree requires a minimum of 84 hours to be completed.

MASTER OF ARCHITECTURE AND URBAN DESIGN DUAL DEGREE

MUDD 5101 Design Studio: Basics (3) *(For non- design based applicants only. May be waived if determined in the admissions process.)*

Fall (6 hours)

MUDD 5601 Community Planning Workshop (3) MUDD 6205 Topics in Urban History and Theory

Elective (3) **--OR--** MUDD 6050 Topics in Urban Design Elective (3)

Spring (6 hours)

MUDD 5602 Planning, Law, and Urban Design (3) MUDD 6204 Topics in Urban History and Theory

Elective (3) **--OR--** MUDD 6050 Topics in Urban Design Elective (3)

Year Two

Fall (15 hours)

Year One

Fall (6 hours)

ARCH 5203 Architectural History III: Survey of Contemporary Theory (1950-Present) (3)

ARCH 5305 Building Systems Integration (3) ARCH 5604 Computational Methods (3) ARCH 7101 Design Studio: Topical (6)

Spring (12 hours)

ARCH 5205 Architecture History Topic (3) OR ARCH 6050 Architecture Elective (3)

MUDD 6101 Fundamentals of Urban Design Studio (6)

Spring (6 hours)

MUDD 6102 Urban Open Space and Infrastructure Design Studio (6)

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ARCH 6306 Technology Topic 1 ARCH 7102 Design Studio: Comprehensive (6)

Year Two

Fall (12 hours)

MUDD 5601 Community Planning Workshop (3) MUDD 6101 Fundamentals of Urban Design Studio

(6) MUDD 6205 Urban History / Theory Elective

Spring (12 hours)

ARCH 7201 Design Methods (3) MUDD 5602 Planning, Law, and Urban Design (3) MUDD 6102 Urban Open Space and Infrastructure

Design Studio (6)

Summer (12 hours)

MUDD 6050 Urban Design Elective MUDD 6204 Urban History / Theory Elective (3) MUDD 7101 Vertical Urbanism / Global Urban

Design Studio (Foreign-based first Summer session)

(3) MUDD 7101 Vertical Urbanism / Global Urban

Design Studio (Charlotte-based second Summer session) (3)

equals or exceeds in both content and rigor of a course or courses required in the graduate curriculum. If a required course in the curriculum is waived, the student will be allowed to fill those credit hours with another course as advised by the Associate Director of the School of Architecture, in consultation with the Director of the Urban Design Program.

Application for Degree

In order to meet UNC Charlotte's Graduate School requirements for degree candidacy, all graduate students must receive a written certification from their department confirming a successful capstone project. This report requires approval from the Director of the Urban Design Program, as well as the signatures from the graduate faculty members involved in the project. The completion of this report results in the granting of the degree. In addition, and prior to this completion, each student should make application for his/her degree by completing the online Application for Degree through Banner Self Service no later than the filing date specified in the University Academic Calendar.

Research and Study Abroad Opportunities

M.U.D students may engage in research activities via the School of Architecture's Design + Society Research Center (D+SRC). All students automatically obtain international study experience through the required global Summer studio.

Assistantships, Tuition Differentials, and Scholarships A number of research assistantships, scholarships, and tuition waivers are available to M.U.D candidates. Awards are based on the applicant's academic merit or promise of academic merit, and/or on demonstration of need.

Studio Courses

ARCH 6100. Design Studio: Basics. (3) Cross-listed as MUDD 5101.

Prerequisite: B.A., B.S. or equivalent college degree. This introductory graduate course in architecture is intended for students newly admitted to the School of Architecture's 3+ year professional program. This five-week, intensive studio-based course includes an introduction to freehand drawing, 2-D composition, 3-D modeling, and visual theory. In addition, the course offers an introduction to a variety of related topics (history, urbanism, structure, lighting, materials, etc.) that serve as critical departure points for understanding and making architectural and urban

Fall (9 hours)

Year Three

ARCH 6050 Architecture Elective (3) ARCH 6307 Technology Topic (3) ARCH 7202 Final Project/Thesis Document (3)

(approved urban focus required)

Spring (12 hours)

ARCH 5206 Professional Practice (3) ARCH 5605 Computational Practice (3)
ARCH 7104 Final Project/Thesis Studio (6)

Graduate Advising

A critical component of any successful graduate program is academic advising and guidance during the course of a student's program of study. The primary advisors for all urban design graduate students in the School of Architecture will be the Associate Director of the School of Architecture, in consultation with the Director of the Urban Design Program.

Transfer Credit

Transfer credit may be granted under special circumstances (e.g., approved post-baccalaureate status prior to entry into the program) and is limited to a maximum of six hours of graduate credit.

Waiver Credit

Waiver credit may be allowed if a student can demonstrate that a course or courses taken in his or her prior undergraduate or graduate curriculum

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projects. (*Summer*)

ARCH 6101. Design Studio: Fundamentals. (6)

Corequisite: ARCH 5602. This introductory architectural design studio focuses on fundamental concepts of architecture as well as the acquisition and practice of a wide range of technical and graphic skills and media. It is intended to complement the reading and writing engaged in ARCH 5601 and to serve as an arena to explore and test the issues encountered in that course through the act of making. *(Fall)*

ARCH 6102. Design Studio: Fundamentals. (6)

Prerequisite: ARCH 6101. This introductory architectural design studio focuses on the development of site, space, and design process issues as well as the continued acquisition and practice of a variety of technical and graphic skills. Exploration into the creative and appropriate use of a variety of media is addressed. *(Spring)*

ARCH 7101. Design Studio: Topical. (6) Prerequisite: ARCH 6102 or equivalent. Focuses on issues relevant to current architectural practice and/or exploration of architectural theory. Students choose from among several sections of this studio, each of which addresses a different set of issues. The issues addressed as well as the pedagogical approach of these studios are defined by the faculty teaching them. All students must take a minimum of one Topical Design Studio within their area of Concentration. *(Fall)*

ARCH 7102. Design Studio: Comprehensive. (6)

Prerequisite: ARCH 7101. Focuses on a site-specific project emphasizing technological and systemic issues that lead toward a comprehensive building design. *(Spring)*

ARCH 7103. Design Studio: Topical. (6) Prerequisite: ARCH 7102. Focuses on issues relevant to current architectural practice and/or exploration of architectural theory. Students choose from among several sections of this studio, each of which addresses a different set of issues. The issues addressed as well as the pedagogical approach of these studios are defined by the faculty teaching them. All students must take a minimum of one Topical Design Studio within their area of Concentration. Course may be repeated with permission. *(Fall)*

ARCH 7104. Final Project/Thesis Studio. (6)

Prerequisite: ARCH 7103. Offers support and structure for students undertaking their individualized project in the MARCH I program. Focuses upon an individually defined architectural design project, or upon an individually defined research project (see Requisite & Capstone Experiences for more details).

The faculty member teaching ARCH 7104 coordinates the activities of the students and their advisory committees. *(Spring)*

Core Courses

ARCH 5201. Architectural History I: Prehistory- 1750. (3) Global survey of architecture and urbanism from prehistory to 1750. Explores key examples of buildings and cities as well as the theoretical, environmental, political, economic, technological, and cultural context in which they were built. Provides a general knowledge of the formal, spatial and ornamental characteristics that distinguish the built environment of distinct historic and traditional building cultures. *(Fall)*

ARCH 5202. Architectural History II: 1750-Present. (3) Prerequisite: ARCH 5201 or permission of instructor. Global survey of architecture and urbanism from 1750 to the present. Explores key architectural and urban ideas, designers, buildings, and urban projects as well as how they were shaped by their environmental, political, economic, technological, and cultural context. *(Spring)*

ARCH 5203. Architectural History III: Survey of Contemporary Theory (1950-Present). (3) Prerequisite: ARCH 5202 or permission of instructor. Survey of architecture theory from 1950 to the present. Focuses on the key ideas, texts, debates, and discourse that have informed architectural practice in the late twentieth and early twenty-first century. *(Fall)*

ARCH 5206. Professional Practice. (3) An introduction to the objectives of the practice of architecture, its responsibilities and procedures, and emerging alternative forms of practice and as they pertain to the role of the architect. *(Spring)*

ARCH 5301. Materials and Assembly Principles. (3)

Introduces the quantitative and qualitative characteristics of architectural materials, systems, and processes. Students will be introduced to the physical properties of materials relevant to their application in construction, assembly, and detail systems. Topics will include masonry, concrete, wood, steel, glass, cladding, and roofing and flooring materials and their assemblies. *(Fall)*

ARCH 5302. Environmental Systems Principles. (3)

Prerequisite: ARCH 5301 or permission of instructor. Introduces qualitative and quantitative analytical methods commonly used to assess the impact of environmental forces on occupant thermal and luminous comfort, energy performance, and regional sustainability. Students will be introduced to the interplay between climatic events, patterns of building

use, and the architectural variables that inform the appropriate application of building systems technology. Topics include building envelope performance, and the introduction of passive and mechanical systems for heating, cooling, illuminating, and ventilating buildings. *(Spring)*

ARCH 5303. Structural Principles. (3) Prerequisite: ARCH 5301 or permission of instructor. Introduces issues relevant to the fundamentals of structures including statics, strength, and stability of materials. Students will be introduced to structural concepts, systems, and the tracing of structural loads through basic principles, physical modeling, and theoretical and analytical methods. Topics will include interrelationship between strain, stress, and stability, as well as the implications of tension, compression, shear, torsion, and bending. *(Fall)*

ARCH 5304. Structural Systems. (3) Prerequisite: ARCH 5303. Introduces specific structural applications of wood, steel, concrete, and masonry systems commonly used in small-scale commercial/institutional buildings. Students will be introduced to the design of beams, columns, walls, joinery, and connections appropriate to each material type through theoretical, analytical, and computer simulation methods. *(Spring)*

ARCH 5305. Building Systems Integration. (3)

Prerequisites: ARCH 5304. Introduces a set of advanced issues related to the comprehensive, systemic integration of building technology systems commonly used in large-scale buildings through case study, analytical, and simulation methods. Topics address the resolution of building structure, materials, environmental systems, mechanical systems, electrical systems, life safety, building water supply and waste, and conveying systems in building design. *(Fall)*

ARCH 5604 Computational Methods. (3)

Prerequisite: ARCH 6603. Corequisite: ARCH 7101 or permission of instructor. Introduces students to the fundamental concepts of computation through explorations with basic scripting and parametric tools. The goal is to understand the potential of computation and the role it can play as part of one's design process, not as a collection of specific tools, but as a way of thinking about design. *(Fall)*

ARCH 5605. Computational Practice. (3)

Prerequisite: ARCH 5604 or permission of instructor. Capstone course for digital media and computational studies in the School of Architecture. The goal of this seminar course is to provide students with experience using advanced digital tools and methods, including digital fabrication, parametrics, Building Information

Modeling/Management (BIM), scripting, and

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performance analysis in preparation for professional practice and/or advanced graduate research. (*Spring*)

ARCH 6306/6307. Technology Topic. (3)

Prerequisite: ARCH 5305 or permission of instructor. Focuses on the study of topical areas of technology in architecture. Provide an in-depth extension of the five required technology courses. The course may be selected from a number of designated technology courses that examine specific issues contributing to architecture as a process of investigation, innovation, analysis and/or research. May be repeated for credit as course topics change. (*Fall, Spring*)

ARCH 6601. Ideas in Architecture. (3) Corequisite: ARCH 6100. This seminar class concentrates on fundamental concepts, issues, and working knowledge specific to design in architecture. It is intended to complement the design problems encountered in ARCH 6100 (studio) and to serve as a critical platform to raise issues that are not always evident in studio making alone. Primary topics addressed include order, form and space, site, type, and architectural meaning. (*Summer*)

ARCH 6602. Representation I: Fundamentals. (3)

Prerequisite: ARCH 6100. Corequisite: ARCH 6101 or permission of instructor. A fundamental visual and architectural skills course that includes lessons in: visual composition, 2D design and communication, 3D physical models, graphic and photographic image manipulation, and craft in design. Also includes readings and criticism, which address the artistic and architectural correlation of these skills. (*Fall*)

ARCH 6603. Representation II: Digital Fundamentals. (3) Prerequisite: ARCH 6602. Corequisite: ARCH 6102. Introduces students to architectural drafting (2D) and modeling (3D) using digital tools and processes. The expected outcome of this course is a student who is skillful, adaptable, and, most of all, critical towards digital media. (*Spring*)

ARCH 7201. Design Methodologies. (3) Focuses on examination of analytic and synthetic models including information processing, programming, and implementation activities used to structure the architect's design process, conjectural models, and methods specific to the architect's creative skills. (*Spring*)

ARCH 7202. Final Project/Thesis Document. (3)

Provides structure for the formation and exploration of the ideas and issues relevant to the project in the MArch program. This project is to be undertaken individually by students in their final year of study. This course results in the documentation of relevant research in preparation for the execution of the project, which is carried out in ARCH 7104. (*Fall*)

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Concentration Electives

Concentration Electives are those non-studio courses that fulfill the requirement

for coursework within a student's chosen area of Concentration. Possible areas of Concentration are (1) Architectural Design, Theory, & Practice, (2) Urbanism, and (3) Architectural Technology. Three non-studio courses in the student's chosen area of Concentration are required to complete the curriculum. (See current School of Architecture Prospectus for a complete listing of courses.) Additional urbanism concentration course are listed under the Master of Urban Design course descriptions under MUDD 6204/6205 and MUDD 6050. ARCH 6050 is a repeatable course that may be taken by graduate students in the School of Architecture and may be repeated for credit as topics change.

Architectural Design, Theory, & Practice

ARCH 6050. Digital Theory. (3) An introduction in the fundamentals of digital design & representation techniques, within the context of theoretical works since the industrial revolution. The course will develop a set of aesthetic, performative, and method based criteria for understanding digital work. This framework will serve as a starting point for students to assess a developing set of digital design values.

ARCH 6050. Digital Methods 1. (3) Course focusing on modeling, shading and rendering using Maya 3D software. The class will explore other relevant representation tools, and the proper methods for achieving seamless integration between such tools.

ARCH 6050. Digital Methods 2. (3) This course explores the generative and parametric methods as they impact the practice of architecture. A comprehensive use of various software packages will exploit the computer's ability to cross-reference geometric relationships, data sets, and parametric variables.

ARCH 6050. Digital Fabrication 1. (3) This course employs ideas from industrial, mechanical, and technical construction as precedent for digital spaces and programs. The course will analyze contemporary projects to understand related programs, constructed spaces, and conceptual ideas. Using parametric design techniques, spaces and designs will be computer-generated using dynamic systems and modifiers.

ARCH 6050. Digital Fabrication 2. (3) A continuation of "Digital Fabrication 1," utilizing more advanced hardware and software fabrication techniques.

ARCH 6050. Modern Perception: Linear Perspective and Motion Pictures. (3) This seminar examines how techniques of spatial representation interact with architectural and urban ideas. The extent to which ideas of perception create, as opposed to reflect, cultural change is debatable. Both linear perspective and cinema are paradigms of spatial perception that coincide with broader revolutions

in art and culture. These two practices will serve as case studies through which to explore the complex relationship between art, architecture, and vision.

ARCH 6050. ArtXArch: Art, Architecture and the Built Environment. (3)

This course will visit and animate familiar and uncanny examples of the built environment, using as its reference the relationship between architecture's tenets and contemporary visual artists' motives across the fields of architecture, art, media, and politics. It examines how artists both borrow from and move beyond architecture by building an aesthetic and critical case for the necessary and culturally redemptive practice of art within architectural contexts.

ARCH 6050. An Architecture of Questionable Effects. (3) Discusses the promise and problems of architecture understood as a set of perceptual effects. This position of interpreting buildings is rooted in the discipline's connection to the visual arts – for example: the discovery of perspective and its influence on painting, the invention of photography and the moving image, or the use of electronic media for creating aesthetic complexity in the building arts.

ARCH 6050. Representation: Exploits of the Architectural Image. (3) Offers an exploration of design themes in the two-dimensional, image-based world of the architect. It defines contemporary architectural representations and surveys ideas that center on drawing in architectural practice.

Urbanism

ARCH 6050. Introduction to Urban Design. (3)

Cross-listed within MUDD 6050 Topics in Urban Design. Course covering how cities, suburbs, and metropolitan areas develop and change. Topics range from grand ideas proposed by individuals to smaller more incremental processes carried out through collaborating parties.

ARCH 6050. Community Planning Workshop. (3)

Cross-listed as MUDD 5601. This course serves to acquaint students with contemporary theory and practice in planning and urban design; to give students experience in applying planning and urban design theory and methods to actual problems; to provide students with experience in compiling and analyzing community scale data, working with

citizens, professional planners and designers, and elected officials, to provide students with experience in the preparation of oral reports and technical documents; and to examine what it means for the planner and urban designer to demonstrate ethical responsibility to the public interest, to clients and employers, and to colleagues and oneself.

ARCH 6050. Shaping The American City. (3) Cross- listed as MUDD 6050. Throughout the Twentieth Century urban politics, policies, and programs have shaped the space of the American City, including the architecture of urban settlement patterns, public space, transportation, and housing. An understanding of the political/social/historical/spatial foundations of urban policies in relation to the American City is critical in understanding the development of our current urban patterns, the spatial distribution of people and resources, and the future production of architecture and design in urban settings. Issues will be framed in the interstices of the space/knowledge/power triad. (*On demand*)

ARCH 6050. Strategies for the Public Realm. (3)

Cross-listed as MUDD 6050. Contemporary theories and practices in urban design underscore the connection between the citizen and the public realm and between the physical and social attributes of the city. Urban design is not so much an aesthetic as it is a strategy for change, transformation, dialogue, and interaction. Urban design is the link between architecture and urbanism, tying together the city's disparate parts and celebrating the complexity and connectedness of space. (*On demand*)

ARCH 6050. Dilemmas of Modern City Planning. (3)

Cross-listed as MUDD 6050. The patterns of man's settlement are predicated upon particular paradigms of urbanism, as well as more pragmatic concerns of politics, economics and geography. An examination of these influences and their interconnections provides the necessary theoretical and historical background from which to propose improvements to the contemporary landscapes of our cities. (*Spring*)

ARCH 6050. Post-CIAM Discourse on Urbanism. (3)

Cross-listed with MUDD 6204/6205. This seminar examines the evolution of postwar urbanism as a particular synthesis of cultural criticism, shift of direction in practice, and various architectural experimentations. They represented innovative responses to the changed sociopolitical and cultural conditions from different perspectives. The central focus of investigation will be the essential theories of urbanism and experimental design practice from the mid 1950s to the

early 1970s.

ARCH 6050. Real Estate Development Studies: Introduction to Real Estate Development. (3) Cross-

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listed as MUDD 6050. The production of buildings requires both architectural and economic skill. Likewise, the production of our landscape is both a private and public endeavor. To balance these skills and endeavors requires an understanding of basic facts. This course focuses on an introduction to the real estate development process. Course material, lectures and case studies focus on the identification and evaluation of critical assumptions and issues related to market and site feasibility, financial feasibility, planning, acquisition, construction, and operation of economically viable commercial real estate projects. *(Fall)*

ARCH 6050/4213-U01/6133. Public Space in Cities. (3) Cross-listed as MUDD 6050. The public realm has historically constituted a set of real places possessing physical form and has been the setting for civic and communal life. This traditional role of public space is brought into question by the advent of cyberspace, with unknown consequences for city form. This course focuses on the origins and transformations of public space within American culture, and to understand principles of urban design as they have related to the creation of public space during different historical periods. Course material will also focus on the historical connection between the public realm and democratic principles, and the threats to the continued existence of truly public space in American cities.

ARCH 6050. Urban Form, Context and Economics. (3) Cross-listed as MUDD 6050. Urban development and redevelopment can be considered typologically in two main categories: large “catalyst” projects (performing arts centers, entertainment complexes, and other large, mixed-use projects); and smaller, incremental interventions in the urban setting that lack glamour but contribute much needed depth and complexity to the urban environment. This course focuses on how and why urban projects are formulated by public and private interests. It engages the conceptual origins, design development and production of urban projects large and small, in an effort to understand the relationship between development economics, social factors, program development, design concepts and urban contexts.

ARCH 6050. The Changing Urban Landscape: The Development of Uptown Charlotte, 1875-Present. (3) Cross-listed as MUDD 6050. The design and evolution of cities is a reflection of evolving attitudes about gender, race, crime and socioeconomic conditions as well as governmental interventions and the

efforts of private enterprise. Charlotte's Center City is a unique result of those many influences and serves as an excellent laboratory for gaining an understanding of the forces that shape the making of the places we live. Specific topics will include the

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development of First Ward from a public housing ghetto to a mixed income neighborhood, the demise of the Brooklyn neighborhood in Second Ward, professional sports in Uptown Charlotte, the development of Fourth Ward, the civic patron/ corporate factor, transportation in Uptown Charlotte and finally, the 2010 and 2020 plans for Uptown.

Architectural Technology

ARCH 6050. Site Sustainability and Planning. (3) A project-based seminar that introduces concepts and methods for developing ecologically based site plans within the context of economic and social issues. Students work in teams to generate redevelopment plans for local sites in Charlotte, North Carolina.

ARCH 6050. Sustainability and Climate Responsive Architecture. (3) Introduces the technical and practical issues of climate responsive architecture by providing an overview of passive control systems. The class provides a survey of solar, wind and other environmental opportunities as means for understanding passive techniques for building.

ARCH 6050. Building Shapes and Skins for Daylighting. (3) A case study course that evaluates building form and enclosure lighting data from an existing building. Computer simulated parametric analysis are then generated to study alternative design scenarios. The course utilizes Spot and UNC Charlotte-Light simulation tools, including Eco-tech, DaySim and Radiance.

ARCH 6050. Parametric Methods: Notes on Sustainable Design Decision Making. (3) A formal design decision- making process is developed in this course through the elaboration of the systemic principles that describe the role of architecture to reconcile the pertinent utilization of mechanical, electrical and material system choices. Issues of the implicit role of the architect to understand the application of appropriate building systems technology, public policy decisions and economic solutions that provide for the sustained delivery of human, environmental and physical performance are brought to bear through a variety of methods.

ARCH 6050. Bio-climatology & Cross Cultural Assessments of Traditional Built Form. (3) Through this course a conceptual framework of social and technical determinism is developed from a single disciplinary point of view based on the traditions of building design science and environmental technology informed through social science theory. Topical field assessments will be

developed through a research-based introduction of the Human Relations Area Files to address the cultural/societal and technical realms that describe traditional built form.

The issues that have influenced and are currently impacting human settlement, building, and tectonic design are explored through the use of the Mahoney Tables to weave the relevant connections to built form response and the interpretation of climatically responsive architectural principles of design sustainability.

ARCH 6050. Architectural Luminous Environment. (3) The architectural luminous environment is introduced in this course as a continuum of technical/material innovation from 1850 to the present. Issues of daylighting and electric lighting are explored as an integrated systems approach to evaluate current sustainable design practices that relate to energy utilization and appropriate resource allocation. Case study research methods of assessment, computational analysis, physical modeling and economic evaluation will be introduced.

ARCH 6050. Sustainable Design: Ecology, Technology and Building. (3) Sustainable design is the term most commonly used when describing building carried out according to sound ecological and environmental perspectives. Utilizing a lecture/seminar/case study format the course content will survey the principles of environmentally sensitive design, review case studies of "green building" applications, and explore various concepts for integrating sustainable planning and building principles into the form making process of architectural design. The process includes an analysis of bioclimatic comfort, climate responsive design, integration of passive heating and cooling systems, and the basis for specifying sustainable building materials. The intention of the course is to develop a general understanding of the fundamental principles underlying sustainable design and the impact on the building design process and built form.

ARCH 6050. Building Information Modeling (BIM). (3) Course addressing issues and opportunities afforded by Building Information Modeling (BIM) programs. It includes: (1) an introduction to definitions, principles and strategies, (2) an understanding of how BIM allows an integrated design process that encourages creative and appropriate solutions, and (3) to engage BIM software use via the modeling of a building example.

Architectural History Topics

Architectural History Topics offer a focused study of issues in specific areas of history. These courses complement the architectural history survey courses (ARCH 5201, ARCH 5202, ARCH 5303), and serve to inform and develop in-depth research, writing, and presentation skills. Entering MArch II students satisfying ARCH 5303 will be required to take an

Architectural History Topic to satisfy their degree requirement. These courses do not count towards completion of Concentration requirements unless cross-listed. (See current School of Architecture Prospectus for a complete listing of courses.)

ARCH 5204/5205. Architectural History: Topics. (3)

Prerequisite: ARCH 5203 or permission of instructor. Study of topical areas of history and theory of architecture. These courses develop in-depth research, writing, and presentation skills. May be repeated for credit as topics vary. (*Fall, Spring*)

ARCH 5204/5205. Renewing the Modernist Debate: The Theory and Works of Adolf Loos. (3) At the beginning of the 21st century, architecture finds itself in a state of uncertainty and change. Like 100 years before, architects are pursuing ways of reconfiguring the aesthetic, technical, and social demands of their profession in hopes of establishing legitimacy in their work. This class will investigate the buildings and ideas of the early 20th century architect, Adolf Loos (1870-1933), as a vehicle to come to grips with our own precepts about modern architectural theory and practice.

ARCH 5204/5205. Histories of Latin American Architecture. (3) Cross-listed as LTAM 6350. Surveys the ways by which Latin American architectures (both north and south of the US/Mexico border) have come to be seen within the western canon. In this sense, this course is not purely historical; rather, the class will explore Latin American architectures chronologically but from a post-colonial perspective rooted in the present.

ARCH 5204/5205. Popular Modernism: Charlotte Architecture in the '50s and '60s. (3) This course will investigate the influence of 1950s and 60s modern international architecture on Charlotte and the Piedmont region. The goals of the course are: (1) to probe deeper into why this type of architecture became popular in the region, in both its private and public iterations, and (2) to link this interest with similar developments in other American cities, and to discuss such developments within the context of international architecture of the same period.

ARCH 5204/5205 . The Public Space of Cinema: Transformation of the City 1850-1940. (3) (W) Cross- listed as ARCH 6050. Explores the effect of cinema on the physical and cultural landscape of European cities between the revolutions of 1848 and World War II. To provide a broader context, the course examines the rise and fall of the avant-garde in the European metropolis and ways in which revolutionary notions of artistic production affect the fabric of the city. Cinema is

understood both as a medium through which to communicate radical architectural and

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urban ideas and as an architectural typology that overturns conventional notions of urban public space.

ARCH 5204/5205. City Design in the 20th Century. (3) Cross-listed as MUDD 6215. City design in the 20th century has been based on a series of intellectual ideas about what constitutes the “ideal city” on the one hand, and a series of more pragmatic notions about the construction of city space derived from political and/or economic power on the other. The legacy of these conflicting paradigms and intentions can be read in city development and in unbuilt projects across Europe and America. These buildings and projects provide signposts for future efforts of city building in the early years of the 21st century.

ARCH 5204/5205. Post-CIAM Discourse on Urbanism. (3) Cross-listed as MUDD 6215. This seminar examines the evolution of postwar urbanism as a particular synthesis of cultural criticism, shift of direction in practice, and various architectural experimentations. They represented innovative responses to the changed sociopolitical and cultural conditions from different perspectives. The central focus of investigation will be the essential theories of urbanism and experimental design practice from the mid 1950s to the early 1970s.

ARCH 5204/5205. Planning, Law and Urban Design. (3) Cross-listed as MUDD 6215. Examines the impact of planning law on the urban form of cities, both historically and in terms of contemporary professional practice. Surveys the impacts of planning regulations from Philip of Spain’s “Laws of the Indies” at the beginning of American colonization through the development of English common law property rights, their extension to America and the development of zoning and planning legislation during the 20th century. Special attention is paid to current applications of form-based zoning codes in Britain and America and their implications for urban design and the patterns of settlement.

ARCH 5204/5205. Urban Design in Global Perspective. (3) Cross-listed as MUDD 6215. Examines the critical discourse in modern urban design and investigates complex nature of the practice by examining precedents in modern and contemporary time. Essential theories and principles of urban design will be discussed through analyses of projects in the United States and abroad. They will expose students to a series of important issues in urban design, such as downtown revitalization, waterfront redevelopment, high density residence, remedy of edge cities, and urban park. These case studies illuminate the impact of political

systems, social conditions, and local cultures on urban forms. A relationship will be established between these



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large-scale urban projects and the evolution of cities in since the second half of the 20th century.

ARCH 5204/5205. The Changing Urban Landscape: The Development of Uptown Charlotte, 1875- Present. (3) Cross-listed as MUDD 6215. The design and evolution of cities is a reflection of evolving attitudes about gender, race, crime and socioeconomic conditions, and governmental interventions. Charlotte's center city is a unique result of those many influences and serves as an excellent laboratory for gaining an understanding of those attitudes. Specific topics will include the development of First Ward as a mixed income neighborhood, the demise of the Brooklyn neighborhood in Second Ward, professional sports in uptown Charlotte, the development of Fourth Ward, the civic patron/ corporate factor, transportation in Uptown Charlotte and finally, the 2010 and 2020 Plans for Uptown.

ARCH 5204/5205. Offices in the Sky: The History of the Skyscraper from 1870 to the Present. (3) This seminar explores the history of the skyscraper as a unique building type in a way that moves beyond equating “building type” and “formal typology” to examine how social, cultural, political, economic, and technical issues form critical aspects of the definition of “type.” This seminar also examines the transition/translation of the skyscraper as a uniquely American building type to a global or international building type.

ARCH 5204/5205. Architecture and National Identity. (3) Explores this reciprocal relationship between national identities and the built environment through a range of different architectural and urban scales and typologies. The focus is on how political and national identities are constructed and reinforced through architectural and urban form as well as how the built environment has been shaped by those identities.

ARCH 5204/5205. Layered Berlin. (3) Explores the mutual relationship between political history, broader cultural trends, and the architecture and spaces of the city of Berlin. Through the class, students will study how in the past two centuries, Berlin has served as the capital of a rapid succession of dramatically different political entities. The course will examine the ways in which Berlin has born witness to these changes and the city's built and cultural history has reflected and

responded to each period.

ARCH 5204/5205. From Auschwitz to Zapruder: Mapping the Mid-Century.

(3) Examines pivotal cultural and architectural developments within the histories of the mid-20th century. From the origins of WWII to the events of Spring 1968, the course charts both the primary political, cultural, and architectural

arcs of the period, and examine architectural case studies within these broader contexts.

ARCH 5204/5205. History of Urban Form before the 20th Century. (3)

Cross-listed as MUDD 6215. Provides an overview of the history of urban form, design and planning from the earliest cities through the early twentieth century. Its focus is on the key ideas, designers, planners and urban projects as well as the material, environmental, social, cultural, political, economic, religious, theoretical and other forces that have shaped urban form.

ARCH 5204/5205. Urban Design of Capital Cities. (3)

Cross-listed as MUDD 6215. This seminar examines the relationship between politics, changing state contexts, national identities, and the urban design of capital cities. It explores the connections between urban and national identities and between a country's values and/or system of government and planning and urban design decisions.

General Architectural Electives

Architectural Elective courses offer study of a wide range of topical areas in architecture. Students can choose from among many courses, each of which addresses a different topic. These courses complement the core courses and studios and allow students to pursue their specific interests. These courses do not count towards completion of Concentration requirements unless cross-listed. Cross-listed courses are marked with an asterisk. (See current School of Architecture Prospectus for a complete listing of courses.)

ARCH 6050. Trend or Truth: Sustainability in Architecture. (3) This course is structured as an overview of sustainable design and how this subject is defined within the parameters of the built environment. It is designed to introduce students to a broad base of concepts, philosophies, and practices of sustainable design.

ARCH 6050. Objects and Analysis. (3) Prerequisite: ARCH 4050 (Furniture Making) or ARCH 4050 (Making Simple Tools). This course is an examination of the identity of objects and furniture in relation to ritual and space. Through coursework students will develop a historical ground and analytical methods that will extend into the making of an object. This making will involve the exercise of fine craftsmanship in a combination of media.

ARCH 6050. Architecture/Culture/Discourse. (3)

This course traces ideological movements that have informed the discipline of architecture both past and present. In this sense, this course provides a historical vantage point from which to view how theories of architecture and the city develop as inter-related

ideas, practices, and traditions through the persistence of specific themes over time and space.

ARCH 6050. Methods and Meaning. (3) This course examines a range of architectural ideas with an emphasis on developments from the late 1960s to the present. Attention will be paid to the interrelation between theory and practice and how clusters of ideas formulate the discourse as trends both mainstream and marginal. Emphasis will be placed on texts and their interpretation alongside examples of work inspired by the same. This survey means to formulate a broad understanding of contemporary architectural culture.

ARCH 6050. Watercolor & Representation I. (3) The practice of watercolor can make many design notions clear for the maker as well as the observer. Introduces basic visual strategies utilizing tactics and techniques of watercolor. The class focus is on developing a practical vocabulary for skillful representation and emphasizes a working knowledge of watercolor painting and its application at all phases of design work. Students will develop skills presenting objects in space using watercolor and pencil.

ARCH 6050. Advanced Watercolor Representation. (3) This class emphasizes the development of working methods for thoughtful representation using watercolor for all phases of design work. Issues and skills addressed include analysis; representation of interior and exterior spaces and events; representation of urban context and site; and presentation of organizational strategies.

ARCH 6050. Furniture Making. (3) This is a laboratory course in the fundamentals of designing and building of furniture, primarily in wood. Included are the basics of materials selection, machine and hand tool use, joinery, and finishing. The crafting of furniture of student's design is an integral part of the course.

ARCH 6890. Directed Independent Study. (1-3)

Prerequisite: permission of the Graduate Coordinator and the graduate faculty member advising the study. This course enables directed individual study and in-depth analysis of a special area related to the interests of the student and the expertise of the advising faculty member. May count towards completion of Concentration requirements if appropriate. May be repeated for credit as topics change.

ARCH 7120. Graduate Summer International Study. (3) Cross-listed as MUDD 7120. Prerequisite: completion of first year of the MArch II Program (or

equal). ARCH 7120 is an optional International Study course that MArch II students may engage in the summer prior to their final year. The premise of this

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course is to allow graduate students to engage a summer experience abroad to support their growing knowledge of architecture and architectural discourse. This experience is intended to inform and motivate possible interests that the students might pursue in their final year of study. (*Summer*)

ARCH 7950. Graduate Summer Research Study. (3)

Prerequisite: completion of first year of the MArch II Program (or equal). ARCH 7950 is an optional opportunity for research that MArch II students may engage in the summer prior to their final year. The premise of this course is to allow graduate students to engage research activities to support their growing knowledge of architecture and architectural discourse. This experience is intended to inform and motivate possible interests that the students might pursue in their final year of study. (*Summer*)

Studio Courses

MUDD 5101. Design Studio: Basics. (3) Cross-listed as ARCH 6100.

Prerequisite: B.A., B.S. or equivalent college degree. This introductory graduate course in architecture is intended for students newly admitted to the School of Architecture's 3+ year professional program. This five-week, intensive studio-based course includes an introduction to freehand drawing, 2-D composition, 3-D modeling, and visual theory. In addition, the course offers an introduction to a variety of related topics (history, urbanism, structure, lighting, materials, etc.) that serve as critical departure points for understanding and making architectural and urban projects. (*Summer*)

MUDD 6101. Fundamentals of Urban Design Studio. (6) This introductory urban design studio focuses on fundamental concepts as well as the acquisition and practice of a wide range of technical and graphic skills and media. It is intended to serve as an arena to explore and test issues focused around the making of sustainable public infrastructure, spatial definition by buildings, and the particular dynamics of civic and social spaces. (*Fall*)

MUDD 6102. Urban Open Space and Infrastructure Design Studio. (6)

Prerequisite: MUDD 6101. This intermediate design studio focuses on the sustainable development of neighborhoods, districts, sites and urban open spaces, exploring design process issues as well as the continued acquisition and practice of

a variety of technical and graphic skills. (Spring)

COURSES IN URBAN DESIGN (MUDD)

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MUDD 7101. Advanced Vertical Urbanism / Global Urban Design Studio. (6) Prerequisite: MUDD 6102. This advanced design studio focuses on site-specific projects in countries outside the USA and emphasizes methods of research and design as well as technological and systemic issues of sustainability in dense and vertical urban environments. This course pursues a directed research and design agenda that varies according to faculty interest, expertise and/or project requirements. In addition, this course may build upon the resources of the Design + Society Research Center (D+SRC) at the School of Architecture. (*Summer-First and Second Sessions*)

MUDD 7134. Independent Capstone Research Project (6) Prerequisite: MUDD 6102. This is an alternative capstone course to MUDD 7101 for students in exceptional circumstances only. This advanced project offers support and structure for students undertaking their capstone experience as individualized research and/or design work within the parameters of the M.U.D program but outside the normative full-time sequence of studios or as part of a dual degree option with an individually tailored course plan. An individually defined urban research and/or design project will be taken under the direction of a M.U.D faculty member and other advisors as appropriate. (*Fall, Spring*)

Required Seminar Courses

MUDD 5601. Community Planning Workshop. (3)

Cross-listed as ARCH 6050. Serves to acquaint students with contemporary theory and practice in planning and urban design; to give students experience in applying planning and urban design theory and methods to actual problems; to provide students with experience in compiling and analyzing community scale data, working with citizens, professional planners and designers, and elected officials, to provide students with experience in the preparation of oral reports and technical documents; and to examine what it means for the planner and urban designer to demonstrate ethical responsibility to the public interest, to clients and employers, and to colleagues and oneself. (*Fall*)

MUDD 5602. Planning, Law, and Urban Design. (3)

Examines the impact of planning law on the urban form of cities, both historically and in terms of contemporary professional practice. It surveys the impacts of planning regulations from Philip of Spain's "Laws of the Indies" at the beginning of American colonization through the development of English common law property rights, their extension to America and the development of zoning and planning legislation during the 20th century. Special attention is paid to current applications of form-based zoning codes in Britain and America and their implications

for urban design and the patterns of settlement.

(Spring)

Elective Seminar Courses

MUDD 6050. Topics in Urban Design Elective. (3)

Study of topical areas of urbanism and urban design. May be repeated for credit as topics change. May include courses from the M.A. in Geography (Community Planning Track) by permission of the Director of the M.U.D Program. *(Fall, Spring, Summer)*

MUDD 6050. Urban Form, Context and Economics. (3) Cross-listed as ARCH 6050. Urban development and redevelopment can be considered typologically in two main categories: large "catalyst" projects (performing arts centers, entertainment complexes, and other large, mixed-use projects); and smaller, incremental interventions in the urban setting that lack glamour but contribute much needed depth and complexity to the urban environment. This course focuses on how and why urban projects are formulated by public and private interests. It engages the conceptual origins, design development and production of urban projects large and small, in an effort to understand the relationship between development economics, social factors, program development, design concepts and urban contexts.

MUDD 6050. Shaping The American City. (3) Cross- listed as ARCH 6050. Throughout the Twentieth Century, urban politics, policies, and programs have shaped the space of the American City, including the architecture of urban settlement patterns, public space, transportation, and housing. An understanding of the political / social / historical / spatial foundations of urban policies in relation to the American City is critical in understanding the development of our current urban patterns, the spatial distribution of people and resources, and the future production of sustainable design in urban settings.

MUDD 6050. Dilemmas of Modern City Planning. (3) Cross-listed as ARCH 6050. The patterns of man's settlement are predicated upon particular paradigms of urbanism, as well as more pragmatic concerns of politics, economics and geography. An examination of these influences and their interconnections provides the necessary theoretical and historical background from which to propose sustainable improvements to the contemporary landscapes of our cities.

MUDD 6050. Strategies for the Public Realm. (3)

Cross-listed as ARCH 6050. Contemporary theories and practices in urban design underscore the connection between the citizen and the public realm

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and between the physical and social attributes of the city. Sustainable urban design is not so much an aesthetic as it is a strategy for change, transformation, dialogue, and interaction. Urban design is the link between architecture and urbanism, tying together the city's disparate parts and celebrating the complexity and connectedness of space.

MUDD 6050. Public Space in Cities. (3) Cross-listed as ARCH 6050. The public realm has historically constituted a set of real places possessing physical form and has been the setting for civic and communal life. This traditional role of public space is brought into question by the advent of cyberspace, with unknown consequences for city form. This course focuses on the origins and transformations of public space within American culture, and to understand principles of urban design as they have related to the creation of public space during different historical periods. Course material will also focus on the historical connection between the public realm and democratic principles, and the threats to the continued existence of truly sustainable public space in American cities.

MUDD 6050. The Changing Urban Landscape: The Development of Uptown Charlotte, 1875-Present. (3) Cross-listed as ARCH 6050. The design and evolution of cities is a reflection of evolving attitudes about gender, race, crime and socioeconomic conditions as well as governmental interventions and the efforts of private enterprise. Charlotte's Center City is a unique result of those many influences and serves as an excellent laboratory for gaining an understanding of the forces that shape the making of the places we live. Specific topics will include the development of First Ward from a public housing ghetto to a mixed income neighborhood, the demise of the Brooklyn neighborhood in Second Ward, professional sports in Uptown Charlotte, the development of Fourth Ward, the civic patron/ corporate factor, transportation in Uptown Charlotte and finally, the 2010 and 2020 plans for Uptown.

MUDD 6050. Real Estate Development Studies: Introduction to Real Estate Development. (3) Cross-listed as ARCH 6050. The production of buildings requires both architectural and economic skill. Likewise, the production of our landscape is both a private and public endeavor. To balance these skills and endeavors requires an understanding of basic facts. This course focuses on an introduction to the real estate development process. Course material, lectures and case studies focus on the identification and evaluation of critical assumptions and issues related to market and site feasibility, financial feasibility, planning, acquisition, construction, and operation of economically viable commercial real

estate projects.

MUDD 6100. Directed Independent Study. (1-3)

Prerequisites: permission of the M.U.D Program Director and the graduate faculty member advising the study. This course enables directed individual study and in-depth analysis of a special area related to the interests of the student and the expertise of the advising faculty member. May generally be taken once for credit towards degree. (*Fall, Spring, Summer*)

MUDD 6204. Topics in Urban History and Theory Elective. (3) Study of topical areas of urban history and theory. May be repeated for credit as topics change. (*Spring, Summer*)

MUDD 6205. Topics in Urban History and Theory Elective. (3) Study of topical areas of urban history and theory. May be repeated for credit as topics change. (*Fall*)

Other Courses

MUDD 7120. Graduate Summer International Study. (3-6) Cross-listed as ARCH 7120. Prerequisite: Approval of the M.U.D Program Director. The premise of this course is to allow graduate students to engage a summer experience abroad to support their growing knowledge of architecture and architectural discourse. This experience is intended to inform and motivate possible interests that the students might pursue in further study. (*Summer*)

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Arts Education

- **Graduate Certificate in Teaching: K-12 Art**
- **Graduate Certificate in Teaching: K-12 Dance**
- **Graduate Certificate in Teaching: K-12 Theatre** For details on the Graduate Certificate in Teaching for K-12 Art, Dance, or Theatre, please see the College of Education section in this *Catalog*.

Music

- **Graduate Certificate in Violin**
- **Graduate Certificate in Vocal Pedagogy**

Department of Music 340 Robinson Hall 704-687-0262

music.uncc.edu **Graduate Certificate Program**

Coordinator Royce Lumpkin, Professor and Department Chair

Graduate Faculty Alissa Deeter, Associate Professor James A. Grymes, Associate Professor Randal Haldeman, Associate Professor David Russell, Professor Fred Spano, Associate Professor Jennifer Whitaker, Assistant Professor

GRADUATE CERTIFICATE IN VIOLIN The Graduate Certificate in Violin provides students with intensive training in performance, pedagogy, and repertoire beyond the undergraduate level. The curriculum consists of 15 hours of graduate-level work that can be completed over the course of one academic year, including two semesters of ensembles and sectionals, two semesters for private lessons and masterclasses, and courses in music theory, pedagogy, and repertoire.

Admissions Requirements

- a) A bachelor's degree in music from an accredited university or conservatory
- b) Online application to Graduate Admissions, accompanied by the application fee in effect
- c) GPA required for entry into a master's degree program
- d) Official transcripts
- e) A formal audition for acceptance as a post-baccalaureate student
- f) Placement tests in music theory, ear training, and piano. Any deficiencies revealed in the placement tests may be remedied through coursework at UNC Charlotte or any other accredited institution.

Program Requirements

Students must take all of the courses below to complete the Graduate Certificate in Violin. All courses must be taken at UNC Charlotte and must be completed within four years.

MUSC 5049 Violin Literature (3) MUSC 5149 Violin Pedagogy (3) MUSC 5230 Form and Analysis (3) MUPF 6160 Chamber Orchestra (1) - two semesters
MUPF 6160L Chamber Orchestra Sectional

Rehearsals (0) - two semesters MUPF 6249 Applied Music: Violin (2) - two semesters
MUPF 6249L Violin Masterclass (0) - two semesters

The Graduate Certificate in Vocal Pedagogy is designed to provide the advanced student with a concentrated program focusing on the methodology and practice of teaching voice. The curriculum consists of 17 hours of graduate level work that can be completed in two semesters over one academic year. The course of study includes ensembles, private lessons, and masterclasses, as well as applied teaching and a graduate pedagogy sequence culminating in a directed project.

Admissions Requirements

- . a) A bachelor's degree in music from an accredited university or conservatory
- . b) Online application to Graduate Admissions, accompanied by the application fee in effect
- . c) GPA required for entry into a master's degree program

- . d) Official transcripts
- . e) Formal audition for acceptance as a post- baccalaureate student

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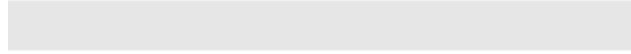
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GRADUATE CERTIFICATE IN VOCAL PEDAGOGY



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- . f) Placement tests in music theory, ear training, and piano. Any deficiencies revealed in the placement tests may be remedied through coursework at UNC Charlotte or any other accredited institution.
- . g) A diagnostic vocal pedagogy exam will be administered prior to placement into the program.

Program Requirements

Students must take all of the courses below to complete the Graduate Certificate in Vocal Pedagogy. All courses must be taken at UNC Charlotte and must be completed within four years.

MUSC 5137 Vocal Pedagogy (3) MUSC 5153 Advanced Vocal Pedagogy (3)
MUSC 6453 Voice Teaching Internship (1) – two

semesters MUPF 6253 Applied Music Voice (2) – two semesters MUPF 6253L
Voice Masterclass (0) – two semesters MUPF 6120 Graduate Choral Ensemble (1)
– two

semesters MUPF 6120L Choral Ensemble Sectionals (0) – two

semesters MUSC 6600 Concluding Seminar (3)

Music Education (MUED)

MUED 5140. Choral Methods. (2) Prerequisite: Admission to the MAT or Graduate Certificate in Teaching Program. Corequisite: MUED 5140L. Rehearsal techniques, repertoire, and administration of school choral programs. A minimum of ten hours

of field work required. Three contact hours. (*Fall*)

MUED 5140L. Choral Methods Lab (1). Corequisite: MUED 5140. Clinical application of rehearsal methods with various choral ensembles. A minimum of 10 hours in the field are required.

MUED 5151. Computer Skills for the Music Educator. (3) Prerequisites: Admission to MAT or Graduate Certificate in Teaching Program, and permission of the instructor. The study of contemporary MIDI and computer related technologies available to the music educator. Two contact hours. (*Fall*)

MUED 5194. Instrumental Methods. (2) Prerequisites: Admission to MAT or Graduate Certificate in Teaching Program, and permission of the instructor. Corequisite: MUED 5194L. Rehearsal techniques,

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repertoire, teaching strategies, methods, and materials of teaching and administrating an instrumental music program in the public school. Two contact hours. (*Fall*)

MUED 5194L. Instrumental Methods Lab. (1)

Prerequisites: Admission to MAT or Graduate Certificate in Teaching Program, and permission of the instructor. Corequisite: MUED 5194. Clinical application of rehearsal methods with collegiate and public school instrumental ensembles. A minimum of 10 hours in the field are required.

Music Performance (MUPF)

MUPF 6120. Graduate Choral Ensemble. (1)

Prerequisite: Audition. Corequisite: MUPF 6120L. A mixed chorus that performs music of many styles from the Baroque period to the present. 3 contact hours. May be repeated for credit. (*Fall, Spring*)

MUPF 6120L. Graduate Choral Ensemble Sectional Rehearsals. (0)

Corequisite: MUPF 6120. Sectional rehearsals for MUPF 6120. May be repeated. (*Fall, Spring*)

MUPF 6160. Chamber Orchestra. (1) Prerequisite: audition. Corequisite: MUPF 6160L. An elite ensemble that plays advanced string orchestra works and collaborates with the choral and opera programs. May be repeated for credit. (*Fall, Spring*)

MUPF 6160L. Chamber Orchestra Sectional Rehearsals. (0) Corequisite: MUPF 6160. Section rehearsals for MUPF 6160. Graded on a Pass/Unsatisfactory basis. May be repeated for credit. (*Fall, Spring*)

MUPF 6249. Applied Music: Violin. (2) Prerequisite: Admission to the Graduate Certificate in Violin program. Corequisites: MUPF 6160 and MUPF 6249L. Private instruction; one hour lesson per week. Minimum of four hours of practice per day. May be repeated for credit. (*Fall, Spring*)

MUPF 6249L. Violin Masterclass. (0) Weekly master-classes for MUPF 6249. Graded on a Pass/Unsatisfactory basis. (*Fall, Spring*)

MUPF 6253. Applied Music: Voice. (2) Prerequisite: Admission to the Graduate Certificate in Vocal Pedagogy program. Corequisites: MUPF 6253L and approved principle ensemble. Consists of private instruction, a one-hour lesson per week leading to a formal jury at the end of the semester. May be repeated for credit. (*Fall, Spring*)

**COURSES IN MUSIC, MUSIC EDUCATION,
AND MUSIC PERFORMANCE**

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MUPF 6253L. Voice Masterclass. (0) Corequisite: MUPF 6253. Weekly masterclasses for MUPF 6253. May be repeated. (*Fall, Spring*)

Music (MUSC)

MUSC 5001. Topics in Music. (1-6) Prerequisites: Admission to MAT or MME and permission of the instructor. Special topics in music; may be repeated for credit. Specific topics courses will be field-tested and modified to become permanent courses. (*Fall, spring*)

MUSC 5049. Violin Literature. (3) Prerequisites: admission to the Graduate Certificate in Violin program and MUSC 5230. An analysis course focusing on the major repertoire for the violin. Methodologies will include both historical and structural analysis of violin compositions from the 17th century through the present. (*Spring*)

MUSC 5137. Vocal Pedagogy. (3) Prerequisite: Admission to the Graduate Certificate in Vocal Pedagogy program. A methodology course designed to examine the anatomical, physiological, and psychological mechanics of singing. Students will learn how the knowledge of these mechanics can be utilized in applied vocal instruction. (*Fall*)

MUSC 5149. Violin Pedagogy. (3) Prerequisite: admission to the Graduate Certificate in Violin program. Corequisites: MUPF 6249 and MUPF 6249L. A methodology course outlining the teaching techniques, materials, and related literature necessary for offering private instruction on the violin. (*Fall*)

MUSC 5153. Advanced Vocal Pedagogy. (3)

Prerequisite: MUSC 5137. Advanced research in singing. Topics include advanced anatomy and physiology, singer health, complementary modalities, and practical studio application. (*Spring*)

MUSC 5170. Graduate Survey of Music History. (3)

A survey of the materials of Western music and an overview of the historical development and relationships of musical styles.

MUSC 5230. Form and Analysis. (3) Prerequisite: admission to the Graduate Certificate in Violin program. The impact of form and process on the analysis and interpretation of music. A detailed examination of common practice forms such as Binary, Ternary, Rondo, Theme and Variation, and Sonata form. (*Fall*)

MUSC 6453. Voice Teaching Internship. (1)

Prerequisite: Admission to the Graduate Certificate in Vocal Pedagogy program. Applied teaching with a select number of students, both male and female, and

a weekly seminar to review and discuss issues and solutions in the studio. The student will develop and document a systematic teaching methodology, learn how to select appropriate repertoire based on singer ability, and apply appropriate protocols for technical issues. May be repeated for credit (*Fall, Spring*)

MUSC 6600. Concluding Seminar. (3) Prerequisite: Admission to the Graduate Certificate in Vocal Pedagogy program. Concluding Seminar consists of a Directed Learning Project, enabling the student to focus on his or her area of pedagogical interest. Students are mentored through the project by a supervising instructor. Concluding Seminar is intended to provide a learning experience for students to gain additional knowledge that will reinforce their Vocal Pedagogy program and support the student's career goals.

MUSC 6601. Graduate Seminar in Music History. (3)

Prerequisite: MUSC 5170 or permission of the department. Individual or group investigation of a selected style period, composer, genre, or topic of current interest in music history. Provides an introduction to research methods, documentary sources, and critical analysis that will culminate in a formal research paper worthy of scholarly presentation and/or publication. (*Spring*)

