Master of Science in Architecture

DEGREE REQUIREMENTS—45 CREDITS MINIMUM

The master of science degree allows students to complete advanced research or design work that builds on an existing professional degree. This is a nonprofessional degree that allows students to focus on a research or design thesis. Students should develop a knowledge base and skills for conducting research. The thesis is an extended paper presenting independent and original research that makes a contribution to the current body of knowledge in the field. The author may conduct an original investigation or develop an original interpretation of existing research, literature, or both. There is no mandatory organization for a thesis, but the Graduate School suggests five basic chapters or divisions: an introduction of the problem, a review of the literature in the field, an explanation of the materials and methods used in solving the problem, a discussion of results found from review of the methodology, and a conclusion. A full bibliography, or other relevant means of citing sources, is included. Over the course of at least four terms, the minimum course requirement is 45 credits for thesis work. There are no required courses, though we strongly encourage students to take two research methods courses.

In the Department of Architecture, research investigations in MS theses may include design work done as part of the research methodology to test hypotheses, illustrate conclusions, or show the result of such things as design standards or guidelines developed as part of the thesis. Such design work is welcomed as long as it plays a clear role in the logical development of the work. In some cases, the physical format of the final work will have to be looser than the required 8.5” x 11” thesis format specified by the Graduate School. In such a case, the format will be developed in consultation with the student’s committee. If the final work is not in thesis format, it is considered a terminal project rather than a thesis.

The Graduate School does not review a terminal project nor will a terminal project be included in scholarly databases. The Graduate Studies Committee strongly recommends that final work be in the form of a thesis, formatted to include any design work, unless a less restrictive format is absolutely necessary. In all cases, a rigorous scholarly content of the work must be maintained.

The thesis proposal should be a clear, tightly organized, and logical set of statements about what the thesis is, why you are doing it, what the work will entail, and what you expect the results to be. Although theses change somewhat while work on them is being done, it is essential to be as clear and rigorous as possible in the proposal.

Although a master’s thesis is not a PhD dissertation, in which complete mastery of a focused area of investigation is expected, the master’s thesis is still expected to contain original research that can stand up to rigorous review. One role of the proposal is to describe the originality and rigor of the proposed research.

The student’s thesis committee shall be composed of three members, with a minimum of two faculty members from the Department of Architecture, including the chair. The third member may be a faculty member from the Department of Architecture, a faculty member from outside the department or university, or a professional in the field.

This sequence serves as a sample guide for how a student might progress over a four-term period. The exact sequence of courses taken will depend on the program of study by each student, course availability, and potential teaching commitments. Many students take five and six terms for completion.

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ARCH 601. Research. 4–8 Credits.
Involves working on an active research project conceived and directed by a faculty member. The mentorship through participation in a faculty member’s current research is intended to help students gain experience in the identification of researchable questions, conceptually constructing research postulates and designs, and executing productive research. The time commitment by the instructor to the student is balanced by the contributions the student can make to ongoing research.

ARCH 620. Research Methods in Sustainable Design. 4 Credits.
Focuses on research issues and an overview of methods common to environmental design. Assignments relate to the framing of researchable questions.

ARCH 678. Advanced Research Methods in Sustainable Design. 4 Credits.
Focuses on qualitative and quantitative methods applicable to the design of sustainable buildings and communities. Emphasizes more specific qualitative and quantitative methodologies, while students continue to explore a topic and frame a researchable problem through literature reviews and proposal development. The supervising faculty member will spend one to two extra hours per week with the doctoral students. The course will also be used to incorporate further assignments that deepen the doctoral student’s knowledge of targeted research topics through comprehensive reviews of, respectively, the literature and research methods related to their topic or question of interest.

ARCH 617. Built Environment Design and Theory. 4 Credits.
 Presents key design and planning theories. This foundational scholarship course is also open to advanced master’s students.

ARCH 633. History of Sustainable Design. 4 Credits.
 Presents historical and theoretical issues that have shaped sustainable design specifically as it relates to the built environment. This foundational scholarship course is also open to advanced master’s students.

Electives
Below is a list of advanced seminar courses that may assist students in their thesis. Graduates have additional readings, end-of-term paper requirements, comprehensive analysis, research presentations, and/or additional time with the instructor.

ARCH 535 Principles of Urban Design
ARCH 537 Theory of Urban Design II
ARCH 595 Daylighting
ARCH 596 The Window
ARCH 598 Energy Scheming
ARCH 510 Experimental Course: Housing Design
ARCH 510 Experimental Course: High-Performance Buildings
ARCH 510 Experimental Course: Postoccupancy Evaluation
ARCH 605 Reading and Conference
ARCH 606 Special Problems
ARCH 608 Colloquium
AAAP 510 Experimental Course: Adaptive Reuse Seminar (Portland only)
AAAP 510 Experimental Course: Preservation and Transportation
AAAP 510 Experimental Course: Preservation Economics (Portland only)
AAAP 510 Experimental Course: Preservation Technology: Masonry
AAAP 510 Experimental Course: Preservation Technology: Woods and Metals
AAAP 510 Experimental Course: Historic American Buildings Survey–Historic American Engineering Record Documentation
AAAP 510 Experimental Course: American Architecture from a Preservation Perspective I, II, III

Technical Teaching Courses
ARCH 602 Supervised College Teaching
ARCH 661 Teaching Technical Subjects in Architecture
ARCH 690 Teaching Technology in Architectural Design