

## **MASTER OF SCIENCE IN CONSTRUCTION MANAGEMENT**

### **Coursework Requirements for Thesis Option**

#### **General**

A minimum of 32 semester credit hours of approved courses and research supporting a thesis is required for the Master of Science in Construction Management (MSCM) – Thesis Option. The university places limitations on these credit hours in addition to the requirements of the Department of Construction Science and the College of Architecture. All university requirements are found in the Texas A&M University Graduate Catalog under the heading “The Degree of Master of Science.” The student is responsible for proposing a degree plan that meets all university, college, and department requirements.

#### **Degree Plan**

The student must convene an advisory committee of no fewer than three members of the graduate faculty. At least two of the members must be from the Department of Construction Science and at least one member must be from outside of the Department of Construction Science. The advisory committee, in consultation with the student, will develop a proposed degree plan. The proposed degree plan must be approved by all members of the advisory committee and the Graduate Program Coordinator in the Department of Construction Science. The degree plan must be submitted for approval no later than the end of the student’s second semester of study. Without an approved degree plan, the Office of Graduate and Professional Studies will block the student from further registration. The degree plan must conform to the Department’s MSCM - Thesis Option degree requirements.

#### **Core Course Requirements (9-15 Credit Hours)**

The Core Course requirements represent the foundational level of construction knowledge that is expected by all graduates from the Department of Construction Science. All of the Core Courses are required; however, COSC 606 and COSC 608 may be waived with sufficient evidence on the student’s transcript that similar coursework has been completed previously. If either or both of these courses are waived, they will be replaced with the same number of credit hours of Construction Science electives. The degree plan may include a minimum of nine and a maximum of 15 credit hours of core courses. The required COSC Core Courses are:

<b>COSC Core Courses</b>	<b>Credit Hours</b>
COSC 601 Construction Practices	3
COSC 602 Construction Estimating	3
COSC 603 Construction Scheduling	3
<sup>1</sup> COSC 606 Electrical and Mechanical Construction	3
<sup>1</sup> COSC 608 Structural Principles and Practice	3
<b>Total</b>	<b>15</b>

<sup>1</sup>These courses may be waived with approval of the student’s advisory committee.

#### **Research Course Requirements (14 Credit Hours)**

The Research Course requirements provide an adequate background for the student to conduct the independent research that forms the basis of the thesis. These courses are required and may not be replaced in the degree plan.

<b>Required Research Courses</b>	<b>Credit Hours</b>
<sup>1</sup> MATH/STAT/COSC Elective	3
COSC 681 Graduate Seminar	2
COSC 690 Theory of Research	3
COSC 691 Research	6
<b>Total</b>	<b>14</b>

<sup>1</sup>This course is selected in consultation with the student's advisory committee. Possible courses include MATH 606, MATH 613, MATH 619, MATH 645, STAT 651, STAT 652, STAT 653, STAT 658, STAT 659, STAT 661, STAT 673, and PSYCH 301.

### **Non-COSC Elective Requirement (3 Credit Hours)**

At least three credit hours are required from courses outside of the Department of Construction Science. The student selects the non-COSC course in consultation with the advisory committee. Additional non-COSC electives may be selected in order to complete one of the optional certificate plans available through the College of Architecture or the Mays School of Business. It is the student's responsibility to propose a degree plan that conforms to the requirements of the optional certificate plans, if selected.

### **COSC Electives (0-6 Credit Hours)**

The student may take a maximum of 6 credit hours of elective courses from the Department of Construction Science; however, if the student is required to take all 15 credit hours of the Core Course requirements, then no credit hours of COSC electives are required. The total combination of Core Courses and COSC Electives must not exceed 15 credit hours. Available COSC Electives include:

<b>COSC Electives</b>	<b>Credit Hours</b>
COSC 620 Construction Company Operations	3
COSC 621 Advanced Project Management	3
COSC 622 Construction Economics	3
COSC 624 Construction Business Development	3
COSC 628 Construction Law and Risk Management	3
COSC 631 Advanced Construction Productivity and Lean	3
COSC 642 Construction Information Technology	3
COSC 644 Advanced Construction Systems	3
COSC 648 Graduate Capstone	3
COSC 650 Construction Visualization	3
COSC 663 Sustainable Construction	3
COSC 670 Facility Asset Management	3
COSC 684 Professional Internship	3
COSC 685 Directed Studies	3

### **Proposed Degree Plan (32 Credit Hours)**

The MSCM – Thesis Option is designed to be completed in two academic years (or four semesters). The actual time to completion is dependent upon the student's progress in the required coursework and proposed research. The following is a typical plan for completion:

<b>Fall – Year 1</b>	<b>CH</b>
COSC 601	3
COSC 602	3
COSC 690	3
COSC 681	1
<i>Total</i>	<i>10</i>

<b>Spring – Year 1</b>	<b>CH</b>
COSC 606 (or COSC Elective)	3
COSC 608 (or COSC Elective)	3
MATH/STAT/COSC Elective	3
<i>Total</i>	<i>9</i>

<b>Fall – Year 2</b>	<b>CH</b>
COSC 603	3
COSC 691	3
non-COSC Elective	3
<i>Total</i>	<i>9</i>

<b>Spring – Year 2</b>	<b>CH</b>
COSC 691	3
COSC 681	1
<i>Total</i>	<i>4</i>