Construction Management and Engineering

Department Information

- **Interim Department Chair:**
  Xuefeng (Michael) Chu, Ph.D.
- **Graduate Coordinator:**
  Kalpana Katti, Ph.D.
- **Department Location:**
  Engineering 106
- **Department Phone:**
  (701) 231-6202
- **Department Web Site:**
  [www.ndsu.edu/construction/](http://www.ndsu.edu/construction/)
- **Application Deadline:**
  Fall: May 1; Spring: October 1 for M.S. and Master of Construction Management, November 1 for Certificate
- **Credential Offered:**
  MSCM, MCM, CCM
- **Test Requirement:**
  GRE (M.S. applicants)
- **English Proficiency Requirements:**
  M.S.: TOEFL iBT: 81, IELTS: 7, PTE Academic 54; Master of Construction Management: TOEFL iBT: 79, IELTS: 6.5, PTE Academic: 53

**Master of Science in Construction Management (MSCM)**

The M.S. in Construction Management requires a total of 31 graduate-level credits (24 credits of course work, 6 credits of research/thesis, and 1 credit of seminar) and a thesis. The thesis requires the creation and presentation of new knowledge in providing a solution to a problem. Prior to submitting a thesis to the graduate student’s supervisory committee, the thesis must be reviewed by a departmentally approved external editor. All costs associated with external review are the responsibility of the graduate student.

An example plan of study for the M.S. in Construction Management is shown below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM&amp;E 790</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CM&amp;E 603</td>
<td>Scheduling and Project Control</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 605</td>
<td>Construction Support Operations</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 701</td>
<td>Construction Technology and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 711</td>
<td>Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 712</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>600, 700 or 800-level electives *</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>CM&amp;E 798</td>
<td>Master’s Thesis</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

* Electives may be any 600, 700, or 800-level courses offered at NDSU determined by the student and the major faculty adviser. A minimum cumulative grade point average (CGPA) of 3.0 must be achieved to receive the M.S. degree.

**Master of Construction Management (MCM)**

The Master of Construction Management degree consists of thirty (30) credits of course work and AC Examination. The following ten (10) courses constitute the thirty (30) credits of course work required for the degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM&amp;E 603</td>
<td>Scheduling and Project Control</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 605</td>
<td>Construction Support Operations</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 660</td>
<td>Infrastructure Management</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 701</td>
<td>Construction Technology and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 703</td>
<td>Advanced Project Planning and Control</td>
<td>3</td>
</tr>
</tbody>
</table>
CM&E 711  Construction Cost Estimating  3
CM&E 712  Construction Management  3
CM&E 715  Construction Specifications and Contracts  3
CM&E 725  Decision Making and Risk Analysis  3
CM&E 740  Financial and Economic Concepts for Construction Managers  3
CM&E 793  Individual Study/Tutorial (ACEx)  3

Total Credits  30

Schedule of Courses

Summer Semester
CM&E 603 Scheduling and Project Control
CM&E 660 Infrastructure Management

Fall Semester
CM&E 703 Advanced Project Planning and Control
CM&E 712 Construction Management
CM&E 715 Construction Specifications and Contracts
CM&E 740 Financial and Economic Concepts for Construction Managers

Spring Semester
CM&E 605 Construction Support Operations
CM&E 701 Construction Technology and Equipment
CM&E 711 Construction Cost Estimating
CM&E 725 Decision Making and Risk Analysis

Associate Constructor (AC) Exam

The Associate Constructor (AC) Examination is administered by the American Institute of Constructors & Constructor Certification Commission. All students in the Master of Construction Management Program must take the AC Examination before their graduation. There is no requirement that a student must earn a pass score to receive the Master of Construction Management Degree from NDSU. However, students are encouraged to prepare for the AC Examination and earn a pass score or better established by the testing agency. The examination may be taken multiple times.

The AC examination is the first level in reaching the designation of a “Certified Professional Constructor” (CPC), which is a three-stage process consisting of the AC examination (Level I), 4-5 years of relevant construction management work experience, and the CPC examination (Level II). The AC Examination is offered twice a year, typically in April and November. International applicants should note that the AC Examination is not offered online and is only offered in the United States. If a student has the AC designation, they may take the CPC Examination before graduation. A passing score is also not required for the CPC Examination. Note that CM&E 793 is not required to take the AC Exam and complete the MCM program. Instead, this course may be taken for 1cr (which will not count towards the program of study) for those students who need to maintain enrolled student status in the semester in which they take the AC examination, and are not enrolled in any other courses.

Graduate Certificate in Construction Management (CCM)

The certificate program consists of nine credits encompassing the following three (3) courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM&amp;E 603</td>
<td>Scheduling and Project Control</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 711</td>
<td>Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CM&amp;E 712</td>
<td>Construction Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits  9

Only grades of C or higher will satisfy requirements for certificate completion with a CGPA of 3.0 or greater. Courses used to satisfy the Graduate Certificate requirements cannot be older than three years at the time the certificate completion is verified.