Construction Management and Engineering

Department Information

- **Department Chair:**
  David Steward, Ph.D.

- **Graduate Coordinator:**
  Huojun Yang, 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:**

Master of Science in Construction Management (MSCM)

The Master of Science 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 of the Plan of Study for the Master of Science 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><strong>31</strong></td>
<td></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 in order to complete 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 Exam. 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>
Construction Management and Engineering

- **CM&E 711** Construction Cost Estimating
- **CM&E 712** Construction Management
- **CM&E 715** Construction Specifications and Contracts
- **CM&E 725** Decision Making and Risk Analysis
- **CM&E 740** Financial and Economic Concepts for Construction Managers
- **CM&E 793** Individual Study/Tutorial (ACExam)

**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) Exam is administered by the American Institute of Constructors & Constructor Certification Commission. All students in the Master of Construction Management Program must take the AC Exam before their graduation. There is no requirement that a student has to earn a pass score in order to receive the Master of Construction Management Degree from NDSU. However, students are encouraged to prepare for the AC Exam and earn a pass score or better established by the testing agency. The exam may be taken multiple times. The AC exam is the first level in reaching the designation of a “Certified Professional Constructor” (CPC), which is a three-stage process consisting of the AC exam (Level I), 4-5 years of relevant construction management work experience, and the CPC exam (Level II). The AC Exam is offered twice a year, typically in April and November. International applicants should note that the AC Exam is not offered online and is only offered in the United States. If a student has the AC designation, he/she may take the CPC Exam before the graduation. A pass score also is not required for the CPC Exam.

---

**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>

Only grades of C or higher will satisfy requirements for certificate completion with a CGPA of 3.0 or greater. The Dean of the Graduate School, using official NDSU transcripts, will verify course completion and issue the certificate. Courses used to satisfy the Graduate Certificate requirements cannot be older than three years at the time the certificate completion is verified.