Abbreviated Title (25 chars max): Construction Estimating
Course Title: Construction Estimating
Dept Abbr(s): CMSV

Course Number: 2885
Lecture Hours: 4
Lab Hours: ___
Total (min-max) Credits: 4 - ___
Registration Tally: ___
Lab Tally: ___

Catalog Description:
This course explores the basic techniques and guidelines of estimating. The student will develop skills to prepare cost estimates considering the important aspects of material takeoffs, labor, equipment, and time. Practical, step-by-step cost estimating procedures will be applied to an actual building project.

Prerequisites:

Topics: Topics covered and time allotments.
1. The Estimating Process & Preliminary Procedures 5%
2. Measuring Quantities 30%
3. Pricing 30%
4. Closing the Bid 5%
5. Budget & Elemental Estimating 10%
6. Value Analysis 10%
7. Life-Cycle Costing 10%

If Qualifying Request for MN Transfer Curriculum, check here and select 1 or 2 Goals and their Competencies:

1st Goal: Select a goal Competencies:

2nd Goal: Select a goal Competencies:
### OUTCOMES:
(Include thinking skills/thinking abilities objective(s). A minimum of four measurable course outcomes required.) Refer to Bloom’s Taxonomy for appropriate verbs.

<table>
<thead>
<tr>
<th>The students will be able to:</th>
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<tr>
<td>1. Generate a consistent system of actions in preparing construction project cost estimates.</td>
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<tr>
<td>2. Formulate systematic and sequential plans, monitor plans, and evaluate projects to assure that quality control goals are achieved.</td>
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<td>3. Deduce essential data that is required to prepare cost estimates from construction drawings.</td>
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<td>4. Prepare, develop, and refine individual project estimates in classroom exercises upon an individual and team bases.</td>
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<td>5. Evaluate and use computer technology in estimating.</td>
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<tr>
<td>6. Apply estimating techniques to an actual construction management project.</td>
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<tr>
<td>7. Review, analyze, and interpret construction documents, product, and technical information associated with architectural, structural electrical, fire, HVAC, and plumbing systems.</td>
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### OUTCOME MEASURES:
(Indicate any activity that demonstrates student competence and ways in which the faculty member will ascertain the student learning outcomes.)

<table>
<thead>
<tr>
<th>The department has agreed that these measures must be used:</th>
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<tbody>
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<td>The instructor may also use any or all of the following measures:</td>
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<tr>
<td>1. Quizzes 30%</td>
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<td>2. Papers 20%</td>
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<td>3. Classroom participation/discussion 10%</td>
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<tr>
<td>4. Labs/field-trips 20%</td>
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<td>5. Final test 20%</td>
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</table>

**Which of the college-wide learning outcomes does this course investigate?**

- Communication: Students will create shared meaning appropriate to a variety of audiences by writing and speaker.
- Critical Thinking: Students will apply creative, rational, and value-sensitive modes of thought to information and experience.
- Civic Engagement: Students will identify and address issues of public concern through individual and collective actions beyond the classroom.
- None of the Outcomes

**If Special Course Fee, check here □**

**Semesters offered (check appropriate semester(s)):**
- Fall: Every Fall
- Spring: Not Offered in Spring
- Summer: Not Offered in Summer

**Evaluate/Grading System (check):**
- A – F: ☒
- P / F: □
- Both: □
- A-NC Dev. Only: □

All changes are effective the next Fall semester unless noted ________

Check all that have changed:
- New Course: ☒
- Deleted Course: □
- Course Title: □
- Number: □
CURRICULUM COMMITTEE ACTION:

Primary CIP Code: ______

Submitted by:
Name(s): Matt Simoneau

Academic Council Chair  Date Approved