

# The University Senate of Michigan Technological University

## Proposal 6-22

(Voting Units: Academic)

### “Minor in Construction Management”

1. February 24, 2021

2. Proposer Contact Information:

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3. Introduction

Goal: This minor will offer students, outside of Michigan Tech’s Construction Management Program, the background to work in the Construction Industry at a management level immediately after graduation.

The students most likely interested in this minor would be civil, environmental, mining engineering, and business majors; however, students from other engineering disciplines, such as electrical and mechanical engineering might also be interested in the minor.

The following universities are some of those also offering a Minor in Construction Management:

Arizona State University  
Cal Poly  
Eastern Michigan University  
North Carolina A & T State University  
Syracuse University  
University of Colorado  
University of Minnesota  
University of Maryland  
University of Nebraska - Lincoln

4. Rationale

The 1.3 trillion-dollar construction industry requires a diverse group of people to manage specific projects and construction companies themselves. These people include engineers and business majors of various backgrounds. The construction industry operates very differently than most industries, due to the nature of their work. As a result, they apply some unique principles, practices and procedures in the management of both the company and specific projects. This minor will prepare our graduates that may choose to work in the industry the ability to enter at a management level.

Student learning outcomes, where the American Council of Construction Educators (ACCE) is the accrediting body for the Construction Management Program, are as follows. Upon successful completion of the minor, student will be able to do the following:

ACCE SLO 12 Compare and contrast different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.

ACCE SLO 17 Interpret the legal implications of contract, common, and regulatory law to manage a construction project.

5. Details:

I. Title of Minor: Construction Management

II. Catalog Description:

Gain valuable industry-specific skills for working in the construction industry, including estimating, safety, scheduling, contracts, project management, and project controls. Students are introduced to industry-standard technologies and up-to-date methods that will prepare them to be successful in the industry.

III. List of courses include course numbers, titles, credits and prerequisites:

| <b>Required – 10 credits</b>                                                                     | <b>Number of Credits</b> | <b>Student Learning Outcome</b> | <b>Prerequisite</b>                      |
|--------------------------------------------------------------------------------------------------|--------------------------|---------------------------------|------------------------------------------|
| CEE 3332 Fundamentals of Construction Engineering                                                | 3                        |                                 | Sophomore Standing                       |
| CMG 4200 Construction Contracts                                                                  | 3                        | SLO 17                          | BUS 2200 and Junior Standing             |
| CMG 4210 Construction Project Management                                                         | 4                        | SLO 12                          | CEE 3332 or CMG 4200 and Junior Standing |
|                                                                                                  |                          |                                 |                                          |
| <b>Choose an additional 9 credits from the list below:</b>                                       |                          |                                 |                                          |
| CMG 3265 Construction Cost Estimating (4 Credits) or CEE4333 Estimating and Planning (3 Credits) | 3 or 4                   |                                 | CEE 3332 Junior Standing                 |
| CMG 4120 Construction Planning and Scheduling or CEE 4344 Construction Scheduling                | 3                        |                                 | CMG 3265 or CEE 3332 and Junior Standing |
| CMG 4300 Construction Finance and Accounting                                                     | 3                        |                                 | ACC 2000 and EC 3400 Junior Standing     |
| CMG 4400 Construction Safety Management                                                          | 3                        |                                 | Junior Standing                          |
|                                                                                                  |                          |                                 |                                          |
| <b>TOTAL REQUIREMENTS:</b>                                                                       | <b>19</b>                |                                 |                                          |

6. New Course Descriptions

No new courses are being proposed for this minor.

Estimated Costs

No additional resources or costs are expected with the implementation of the minor.

7. Planned Implementation Date

Spring 2022

# Minor in CONSTRUCTION MANAGEMENT

## FLOWCHART

*Academic Year 2020-21*

F INDICATES COURSE IS OFFERED FALL SEMESTER

S INDICATES COURSE IS OFFERED SPRING SEMESTER

Su INDICATES COURSE IS OFFERED SUMMER SEMESTER

(C) INDICATES THE COURSE CAN EITHER BE TAKEN AT THE SAME TIME (CO-REQ) OR TAKEN PRIOR TO THE COURSE (PRE-REQ)

