

# CONSTRUCTION MANAGEMENT TECHNOLOGY MAJOR, BACHELOR OF SCIENCE (BS)

The Construction Management Technology degree focuses on selected areas of technology, physics, construction materials and techniques, emphasizing courses such as construction estimating, soils and surveying, building codes, and architecture. This concentration prepares graduates to enter and progress in supervisory or management positions in the construction industry. Initial employment may be as an estimator, laboratory technician in materials testing, construction inspector, or field engineer.

Note: including university requirements, the program requires a minimum of 180 credits, an average of 15 credits per quarter for a 12 quarter, four-year program. The 180 credits are based upon the following assumptions:

- Students have had one year of high school drafting. If this assumption is not true, then the student will have to take METC 102;
- Students will have satisfied university proficiencies. If this assumption is not true, then the student will have to complete up to six more classes. (See Undergraduate Degree Requirements (<http://catalog.ewu.edu/undergraduate-degree/>)).

**Grade Requirements:** In order to graduate, students majoring in the department must earn an average GPA  $\geq 2.5$  in all courses required for this major (all courses in the list below).

## Required Supporting Outside Department Courses

CHEM 121	CHEMISTRY AND ITS ROLE IN SOCIETY	5
or CHEM 171 & 171L	GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I	
MATH 142	PRECALCULUS MATH II	5
or MATH 161	CALCULUS I	
or HONS 161	CALCULUS I	
PHYS 131	INTRODUCTORY PHYSICS I	4
or PHYS 151	GENERAL PHYSICS I	
PHYS 161	MECHANICS LABORATORY	1

## Required Departmental Courses

TECH 330	TECHNOLOGY PROBLEM ANALYSIS AND DESIGN I	4
TECH 331	TECHNOLOGY PROBLEM ANALYSIS AND DESIGN II	4
TECH/HONS 393	TECHNOLOGY WORLD CIVILIZATION	4
TECH 403	COMPUTER-AIDED DESIGN AND PROJECT MANAGEMENT	4
TECH 452	ENGINEERING ECONOMICS	4
TECH 454	ENVIRONMENTAL ENGINEERING	4
TECH 456	ENGINEERING ETHICS, CONTRACTS AND PATENTS	4
TECH 458	QUALITY ASSURANCE	4
TECH 462	INDUSTRIAL SAFETY ENGINEERING	4

## Required Construction Management Courses

CMTC 235	CONSTRUCTION MATERIALS AND TECHNIQUES	5
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CMTC 236	CONSTRUCTION MATERIALS AND TECHNIQUES II	5
CMTC 305	CONSTRUCTION ESTIMATING	4
CMTC 335	ARCHITECTURE	4
CMTC 345	SOILS/SURVEYING	4
CMTC 354	BUILDING CODES	4
METC 110	ENGINEERING GRAPHICS	5
METC 340	STATICS	5
METC 341	STRENGTH OF MATERIALS	4
MNTC 320	NON-METALLIC PROCESSES	5

## Required Senior Capstone Series

CMTC/APTC/ TECH/DNTC/ MNTC 490	SENIOR CAPSTONE: PRODUCTION LAB	4
CMTC/APTC/ TECH/DNTC/ MNTC 491	SENIOR PROJECT	4-6
CMTC/TECH 495	INTERNSHIP	1-15

**Total Credits** **105-121**

## Plan of Study

The following plan of study is for a student with zero credits. Individual students may have different factors such as: credit through transfer work, Advanced Placement, Running Start, or any other type of college-level coursework that requires an individual plan.

Courses could be offered in different terms, checking the academic schedule is paramount in keeping an individual plan current. **Students should connect with an advisor to ensure they are on track to graduate.**

All Undergraduate students are required to meet the Undergraduate Degree Requirements (<http://catalog.ewu.edu/undergraduate-degree/>).

First Year					
Fall Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
ENGL 101	5	ENGL 201	5	Humanities & Arts BACR 2 <sup>1</sup>	5
MATH 142	5	METC 110	5	Elective - certificate, minor, or general elective	5
Humanities & Arts BACR 1 <sup>1</sup>	5	Elective - certificate, minor, or general elective	5	Elective - certificate, minor, or general elective	5
	15		15		15
Second Year					
Fall Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
CMTC 235	5	CHEM 121 or 171 <i>and</i> 171L (Natural Science BACR 2)	5	Social Science BACR 2 <sup>1</sup>	5
PHYS 131 & PHYS 161 (Natural Science BACR 1)	5	CMTC 236	5	Elective - certificate, minor, or general elective	5
Social Science BACR 1 <sup>1</sup>	5	Diversity - graduation requirement <sup>1</sup>	5	Elective - certificate, minor, or general elective	5
	15		15		15
Third Year					
Fall Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
MNTC 320	5	CMTC 305	4	CMTC 345	4
TECH 330	4	CMTC 335	4	CMTC 354	4
TECH 403	4	TECH 331	4	TECH 456	4
TECH 452	4	Elective - certificate, minor, or general elective	5	TECH 458	4
	17		17		16

Fourth Year			
Fall Quarter	Credits Winter Quarter	Credits Spring Quarter	Credits
METC 340	5 CMTC 490 (Senior Capstone - graduation requirement)	4 CMTC 491	4
TECH 393 (Global Studies - graduation requirement)	4 METC 341	4 CMTC 495	6
TECH 462	4 TECH 454	4 Elective - certificate, minor, or general elective	5
	<b>13</b>	<b>12</b>	<b>15</b>
<b>Total Credits 180</b>			

<sup>1</sup> University Graduation Requirements (UGR) and Breadth Area Course Requirements (BACR) courses may be less than 5 credits and additional credits may be required to reach the required 180 total credits needed to graduate. Students should connect with an advisor to ensure they are on track to graduate.

### University Competencies and Proficiencies

English (<http://catalog.ewu.edu/undergraduate-degree/#newitemtext>)  
 Quantitative and Symbolic Reasoning (<http://catalog.ewu.edu/undergraduate-degree/#mathcompproficiencytext>)  
 Placement and Clearance (<http://catalog.ewu.edu/placement/>)  
 Prior Learning/Sources of Credit AP, CLEP, IB (<http://catalog.ewu.edu/prior-learning/>)

### General Education Requirements (<http://catalog.ewu.edu/undergraduate-degree/#generaleducationrequirements>) (GER)

- Minimum Credits—180 cumulative credit hours
  - 60 upper-division credits (300 level or above)
  - 45 credits in residence (attendance) at Eastern, with at least 15 upper-division credits in major in residence at Eastern
- Minimum Cumulative GPA  $\geq 2.0$

### Breadth Area Core Requirements (BACR)

Humanities and Arts (<http://catalog.ewu.edu/undergraduate-degree/#humanitiesandfineartsgecrtext>)  
 Natural Sciences (<http://catalog.ewu.edu/undergraduate-degree/#naturalsciencesgecrtext>)  
 Social Sciences (<http://catalog.ewu.edu/undergraduate-degree/#socialsciencesgecrtext>)

### University Graduation Requirements (<http://catalog.ewu.edu/undergraduate-degree/#universitygraduationrequirements>) (UGR)

Diversity Course List (<http://catalog.ewu.edu/undergraduate-degree/#cultureandgenderdiversityintheuslisttext>)  
 World Language (<http://catalog.ewu.edu/undergraduate-degree/#worldlanguagetext>) (for Bachelor of Arts)  
 Global Studies Course List (<http://catalog.ewu.edu/undergraduate-degree/#internationalstudiesrequirementtext>)  
 Minor or Certificate (<http://catalog.ewu.edu/undergraduate-degree/#majorminororcertificateugrtext>)  
 Senior Capstone Course List (<http://catalog.ewu.edu/undergraduate-degree/#capstonecourselisttext>)

Application for Graduation (use EagleNET (<https://inside.ewu.edu/eaglenet/>)) must be made at least two terms in advance of the term you expect to graduate (undergraduate and post-baccalaureate).

Use the Catalog Archives (<http://catalog.ewu.edu/archives/>) to determine *two important catalog years*.

Requirements in Degree Works (<https://inside.ewu.edu/records-and-registration/degree-works/>) are based on these two catalog years:

- The catalog *in effect at the student's first term* of current matriculation is used to determine **BACR** (Breadth Area Credit Requirements) **and** **UGR** (Undergraduate Graduation Requirements).
- The catalog *in effect at the time the student declares a major or minor* is used to determine the program requirements.

### Students who earn a BS in Construction Management Technology from EWU should be able to:

- communicate effectively;
- develop a commitment to quality, timeliness and continuous improvement;
- develop a recognition of the need for, and the ability to engage in, lifelong learning;
- develop an ability to understand professional, ethical or social responsibilities;
- develop an appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines;
- identify, analyze and solve technical and creative problems.