CONSTRUCTION MANAGEMENT BACHELOR OF SCIENCE

Leading to the Bachelor of Science Degree in Construction Management

The Construction Management program provides a background of technical skills to apply to a construction project from conception to completion. Students are taught the skills necessary to manage resources, time, cost, and quality with an emphasis on team building. Skills developed during the program include management, budgeting and cost control, cost estimating, scheduling, engineering fundamentals, and the development of analytical and communication skills. The Construction Management program has a cooperative education program where hands-on experience is acquired. Career opportunities for the construction manager are found throughout the industry and include positions with construction companies, government agencies, architectural and engineering firms, industrial firms, and manufacturing and materials suppliers.

Program Educational Objectives

There are several goals of the Construction Management program:

- Maintain accreditation by the American Council of Construction Education (ACCE), which promotes, supports, and accredits construction education programs.
- Successfully place students in positions appropriate for college graduates in the construction industry.
- Maintain class sizes of no more than 30 students in each lecture and no more than 20 students in each lab.
- Provide Students with the knowledge and skills to succeed in supervisory and management roles in construction related fields.

Student Outcomes

The following are the learning outcomes that will be used to assess the Construction Management program.

- Create oral presentations appropriate to the construction discipline.
- Create written communications appropriate to the construction discipline.
- Create a construction project safety plan.
- Create construction project estimates.
- Create construction project schedules.
- Analyze professional decisions based upon ethical principles.
- Analyze construction documents for planning and management of construction processes.
- Analyze methods, materials, and equipment used on construction projects.
- Apply construction management skills as an effective member of a multi-disciplinary team.
- Apply electronic-based technology to manage the construction process.
- Apply basic surveying techniques for construction layout and control.
- Analyze different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- Understand construction risk management.
- Understand construction accounting and cost control.
- Understand construction quality assurance and control.
- Understand construction project control processes.
- Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- Understand the basic principles of sustainable construction.
- Understand the basic principles of structural behavior.
- Understand the basic principles of mechanical, electrical, and piping systems.

Credits for Degree: 134

This is a four-year, American Council for Construction Education (ACCE) accredited program that begins in the fall of the student's first year and is planned to finish in the summer semester of the student's fourth year.

This period includes two semesters of cooperative work experience. A graduate of the program can earn a Construction Manager in Training (CMIT) certificate, the first step in gaining a Certified Construction Manager (CCM) professional registration.

Students should contact their academic advisor or academic department office for information regarding the construction management elective.

Special Graduation Requirement

Students in the Bachelor of Science in Construction Management program must demonstrate completion of a U.S. Department of Labor Occupational Safety and Health Administration (OSHA) 30-hour training course in Construction Safety & Health. Submission to the Registrar (registrar@wit.edu) of a photocopy of either the signed and dated card or verification and dating of entrance ticket or receipt indicating that the student actually attended the training will serve as adequate proof.

Construction Management (BSCM)

Course	Title	Credits
Freshman Year		
Fall Semester		
CONM1000	INTRODUCTION TO CONSTRUCTION MANAGEMENT, FACILITIES MANAGEMENT & REAL ESTATE DEVELOPMENT	3
CONM1200	BUILDING CONSTRUCTION	4
CHEM1000	CHEMISTRY OF THE BUILT ENVIRONMENT	4
MATH1000	COLLEGE MATHEMATICS	4
English Sequence		4
	Credits	19
Spring Semester		
CONM1500	CONSTRUCTION GRAPHICS	3
CONM1600	HEAVY CONSTRUCTION EQUIPMENT	3
PHYS1000	COLLEGE PHYSICS I	4
MATH1500	PRECALCULUS	4
English Sequence		4
	Credits	18

Course	Title	Credits
Sophomore Year		
Fall Semester		
CONM2000	CONSTRUCTION SURVEYING	4
CONM2100	STATICS & STRENGTH OF MATERIALS	4
CONM2200	ESTIMATING	4
MGMT2700	FINANCIAL ACCOUNTING	3
HSS Elective		4
	Credits	19
Spring Semester		
CONM2500	BUILDING SYSTEMS	4
CONM2600	WOOD & STEEL ANALYSIS & DESIGN	3
MATH1030	STATISTICS & APPLICATIONS	4
HSS Elective		4
	Credits	15
Summer Semester		
COOP3000	PRE CO-OP WORK TERM (OPTIONAL) ((OPTIONAL))	0
	Credits	0
Junior Year		
Fall Semester		
CONM3000	MATERIALS TESTING & QUALITY CONTROLS	4
CONM3100	CONSTRUCTION PROJECT MANAGEMENT	4
CONM3201	CONSTRUCTION PROJECT SCHEDULING	4
MGMT3000	MANAGING & LEADING ORGANIZATIONS	4
	Credits	16
Spring Semester		
COOP3500	COOP EDUCATION 1	0
	Credits	0
Summer Semester		
CONM3500	ADVANCED ESTIMATING & BID ANALYSIS	4
CONM3600	CONCRETE ANALYSIS & DESIGN	4
CONM3800	SPECIAL TOPICS IN CONSTRUCTION MANAGEMENT	3
HSS Elective		4
	Credits	15
Senior Year		
Fall Semester		
COOP4500	COOP EDUCATION 2	0
	Credits	0
Spring Semester		
CONM4000	CONSTRUCTION PROJECT CONTROL	3
CONM4100	CONSTRUCTION BUSINESS & FINANCE	4
CONM4200	CONSTRUCTION SAFETY & RISK MANAGEMENT	3
MGMT4100	POWER & LEADERSHIP IN ORGANIZATIONS	4
HSS Elective		4
	Credits	18
Summer Semester		
CONM4650	BUSINESS, CONSTRUCTION LAW & GOVERNMENT REGULATIONS	3
CONM5500	SENIOR PROJECT CONSTRUCTION MANAGEMENT	4
MGMT3600	LABOR RELATIONS	3
HSS Elective		4
	Credits	14
	Total Credits	134

ENGL/HSS Note

Full-time students are required to complete:

- At least one course in Humanities
- At least one course in the Social Sciences
- The remaining courses from either the Humanities or Social Sciences category.

Students with a three English course sequence may use the third English course to satisfy a Humanities requirement.

A minimum of 28 credits total, including English, humanities, and social science credit, is required to complete the humanities and social sciences graduation requirement.

Of the five humanities and social science electives, BSCM students must include the following **HSS Directed Electives**:

Course	Title	Credits
ECON4102	PRINCIPLES OF ECONOMICS	4
PSYC4552	INDUSTRIAL ORGANIZATION PSYCHOLOGY	4