

CONSTRUCTION MANAGEMENT BACHELOR OF SCIENCE - FACILITIES MANAGEMENT CONCENTRATION

Leading to a Bachelor of Science Degree in Construction Management with a Concentration in Facilities Management

The concentration in Facilities Management is a specialized track within the Construction Management program. It aims to develop in its students recognized management skills along with the knowledge concerning current technologies that is necessary for entry-level professional practice. Facilities Management practice can be regarded as the management of a company's or institution's physical assets. The management of these assets involves short-term and long-term planning for physical facilities and real properties that integrates the organization's strategic business plan and the technical components for that plant. The quality of work life and cost effectiveness of the organization's environment are the goals of the facilities manager.

Building on a practical core of oral and written communications, mathematics, science, and business principles, the Facilities Management concentration introduces students to a wide range of facilities and management issues including construction, energy management techniques, building management, facility assessment, and real estate principles. An integral aspect of the concentration is the experience students gain through two semesters of cooperative employment in facilities management offices.

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 on average in each lecture and no more than 20 students on average 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 electronic-based technology to manage the construction process.
- Apply basic surveying techniques for construction layout and control.
- Understand construction risk management.
- Understand construction accounting and cost control.
- Understand construction quality assurance and control.
- Understand construction project control processes.
- Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- 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.
- Understand the role of the construction manager as a member of different multidisciplinary project teams

Credits for Degree: 133

This is a four-year 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. Students in this track will be accepted into the Construction Management program. Prior to their sophomore year, students can formally elect to enter the Facilities Management concentration. Upon graduating, students in the Facilities Management concentration will have the opportunity to continue in the Wentworth Master of Science in Facilities Management program.

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		
CMFM2400	PROPERTY MANAGEMENT	3
CONM1500	CONSTRUCTION GRAPHICS	3
MATH1500	PRECALCULUS	4
PHYS1000	COLLEGE PHYSICS I	4
English Sequence		4
Credits		18
Sophomore Year		
Fall Semester		
CMFM3300	BUILDING OPERATIONS	3
CONM2100	STATICS & STRENGTH OF MATERIALS	4

Course	Title	Credits
CONM2200	ESTIMATING	4
MGMT2700	FINANCIAL ACCOUNTING	3
HSS Elective		4
Credits		18

Spring Semester

CMFM3200	PROJECT MANAGEMENT FOR FACILITY MANAGERS	4
CONM2500	BUILDING SYSTEMS	4
MGMT1500	DECISION ANALYSIS FOR BUSINESS	4
HSS Elective		4
Credits		16

Summer Semester

COOP3000	PRE CO-OP WORK TERM (OPTIONAL)	0
Credits		0

Junior Year**Fall Semester**

CMFM4100	FACILITY ASSESSMENT & FORECAST	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

CMFM2300	SPACE PLANNING	4
CMFM4200	ENERGY & SUSTAINABILITY	3
CMFM4600	PRINCIPLES OF REAL ESTATE FOR FACILITY MANAGERS	3
HSS Elective		4
Credits		14

Senior Year**Fall Semester**

COOP4500	COOP EDUCATION 2	0
Credits		0

Spring Semester

CONM4200	CONSTRUCTION SAFETY & RISK MANAGEMENT	3
MGMT3500	FINANCIAL MANAGEMENT	4
MGMT4100	POWER & LEADERSHIP IN ORGANIZATIONS	4
MGMT4400	BUSINESS NEGOTIATION	3
HSS Elective		4
Credits		18

Summer Semester

CMFM5500	CAPSTONE PROJECT IN FACILITY MANAGEMENT	4
CONM4650	BUSINESS, CONSTRUCTION LAW & GOVERNMENT REGULATIONS	3
MGMT3600	LABOR RELATIONS	3

Course	Title	Credits
HSS Elective		4
Credits		14
Total Credits		133

ENGL/HSS Note

Students are required to complete:

- At least one course in Humanities: CSAS, HSSI, HIST, HUMN, LITR and PHIL
- At least one course in the Social Sciences; CSAS, HSSI, COMM, ECON, ENVM, POLS, PSYC, and SOCL
- The remaining course 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