

Construction Management

College of Science, Engineering & Technology
Department of Interior Design & Construction Management
354 Wiecking Center 507-389-6385
www.mnsu.edu/dept/idcm

Chair: Scott Fee

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The mission of the Department of Interior Design and Construction Management is to provide preparation for diverse employment opportunities following completion of the degree program. It provides graduates with the essential tools and competency levels for design, construction, planning, or restoration managerial careers.

The Construction Management Emphases provide students with opportunities to gain applied skills and knowledge in the areas of design, construction, planning, and management, allowing them to successfully pursue careers in small and large commercial, residential, and industrial environments.

It is the intent of the Department of Interior Design and Construction Management to offer two separate BS degrees: (1) a BS in Construction Management with a General Emphasis or an Emphasis in Facilities Planning and Management; and (2) a BS in Interior Design with a General Emphasis or an Emphasis in Historic Restoration and Preservation. The program division into two majors is currently pending MnSCU approval. Please contact the Department for information about courses required for the degree and Emphasis in which you are interested.

Admission to Major is granted by the College of Science, Engineering and Technology. Minimum University admission requirements are:

- A minimum of 32 earned semester credit hours.
- A minimum cumulative GPA of 2.00

Contact the CSET Advising Center for application procedures.

CONSTRUCTION MANAGEMENT BS

Core (41 credits):

CM	111	Intro to Design and Construction Management (1)
CM	212	Surveying and Site Planning (2)
CM	215	Fundamentals of Estimating (3)
CM	216	Construction Methods (3)
CM	248	Contract Documents (2)
CM	250	Mechanical and Electrical Systems (3)
CM	281	Architectural Graphics (4)
CM	413	Cost Estimating and Bidding (3)
CM	414	Computerized Estimating and Bidding (3)
CM	445	Construction Systems Management (3)

ACCT	200	Financial Accounting (3)
ACCT	210	Managerial Accounting (3)
BLAW	476	Construction and Design Law (3)
COMS	101	Introduction to Microcomputers (3)
MET	424	Industrial & Construction Safety (2)

Recommended General Education:

BIOL	201	Ecology and Human Society (3)
ENG	101	Composition (4)
GEOG	100	Elements of Geography (3)
PHIL	120	Introduction to Ethics (3)
SOC	101	Introduction to Sociology (3)
SPEE	100	Fundamentals of Speech Communication (3)
URBS	100	Introduction to the City (3)

Completion of these General Education Courses does not entirely fulfill the

GE requirements

Choose one of the following two Emphases, either GENERAL or FACILITIES PLANNING AND MANAGEMENT:

CONSTRUCTION MANAGEMENT GENERAL EMPHASIS

Required for Construction Management General Emphasis (14 credits):

CM	106	Construction Experience (1)
CM	311	Equipment Management (2)
CM	312	Found. & Conc. Structures (3)
CM	497	Internship (8)

Required Support Courses (25 credits):

BLAW	200	Legal, Political and Regulatory Environment of Business (3)
ECON	201	Principles of Macroeconomics (3)
ECON	202	Principles of Microeconomics (3)
MATH	115	Precalculus (4)
MGMT	200	Introduction to MIS (3)
MGMT	330	Principles of Management (3)
BED	345	Business Communications (3)

Select one of the following:

MGMT	440	Human Resource Management (3)
MGMT	482	Business, Society and Ethics (3)
FINA	362	Business Finance (3)

Required General Education (10 credits):

MATH	115	Pre-Calculus (4)
ECON	201	Principles of Macroeconomics (3)
ECON	202	Principles of Microeconomics (3)

Completion of the above General Education courses does not completely satisfy General Education Requirements.

FACILITIES PLANNING AND MANAGEMENT EMPHASIS

This emphasis currently exceeds the minimum 128 credits required for graduation. Please contact an advisor for assistance with course selection.

Required for Facilities Planning and Management Emphasis (35 credits):

CM	282	Interior Design Portraiture (4)
CM	283	Interior Design Lighting and Color (4)
CM	362	History of the Decorative Arts II (4)
CM	372	Interior Design Resources (4)
CM	480	Topics: I.D. Product Development (4)
CM	481	Interior Design Studio III (4)
CM	482	Interior Design Studio IV (4)
CM	483	Procedures and Practices in I.D. (4)
CM	497	Internship (3)

Required Support Courses (7-8 credits):

FINA	477	Real Estate (3)
MET	423	Ergonomics and Work Measure (2)

Select one of the following:

MET	407	Facility Planning (2)
RPLS	379	Management of Parks and Recreation Facilities (3)

POLICIES/INFORMATION

GPA Policy. A minimum grade of "C" is required in all courses.

P/N Grading Policy. All courses in the major must be taken for letter grade except where P/N is the only option.

For interior design students, the department reserves the right of acquisition and exhibition of work completed in the studios under the guidance of the

interior design faculty.

COURSE DESCRIPTIONS

CM 106 (1) Construction Experience

Construction Experience consists of at least 15 weeks of work in the construction industry and must precede the internship program. This credit may be waived for experience acquired prior to enrolling at Minnesota State University, Mankato.

CM 111 (1) Introduction to Design & Construction Management

Overview of academic preparation and career opportunities in the fields of: Construction Management; Facilities Planning and Management; Historic Restoration and Preservation; and Interior Design.

CM 212 (2) Surveying & Site Planning

Basic surveying as related to the layout of construction work sites, focusing on measurement of distances, angles, and elevations, and making selected computations.

Pre: MATH 115

CM 215 (3) Fundamentals of Estimating

Covers principles of quantity takeoff including identification of symbols and trigonometric computations of materials from construction blueprints. Includes commercial and residential types of construction plans.

Pre: MATH 115 (or concurrently), CM 111 and 281 (or concurrently)

CM 216 (3) Construction Methods

Processes utilized in material handling and installation are examined for their effect on managing design and construction projects. Scheduling concepts are studied for patterns to yield higher productivity in the project management process.

Pre: CM 111 (or concurrently)

CM 248 (2) Contract Documents

Basic understanding of the plans and specifications for construction projects. Emphasis on interpretation of bidding and contractual documents, conditions of the contract, technical specifications, quantity takeoffs, and the plans/working drawings.

Pre: CM 111 and 281 (or concurrently)

CM 250 (3) Mechanical & Electrical Systems

Design concepts of heating, plumbing, electrical and control systems are analyzed for attributes that affect the design and construction processes and the performance of completed structures.

Pre: CM 111 (or concurrently)

CM 311 (2) Equipment Management

Study of equipment used in the construction industry with emphasis on equipment selection and cost factors involved in owning and operating equipment.

Pre: CM 111 and 216

CM 312 (3) Foundations & Concrete Structures

Soil identification and testing methods are examined to identify design concepts and construction circumstances that can effect projects. Concrete design and workmanship principles are studied for their effect on quality and durability of the built environment. Foundation design principles are examined for their effect on scheduling, equipment selection and project success.

Pre: CM 216 (or concurrently)

CM 413 (3) Cost Estimating & Bidding

Advanced application of procedures and theory in formulating estimates on highway, grading and utility projects. Study includes job selection, estimating production, compilation of costs, the final preparation of bids, and ethics in estimating and bidding.

Pre: CM 215, 216, 248 and 311 (Pre 311 waived for FP & M and HR & P)

CM 414 (3) Advanced Estimating and Scheduling

The process of construction estimating is extended by the use of computers together with specialized construction software packages to increase job productivity. Software utilized includes commonly used packages in the construction industry on workstations.

CM 445 (3) Construction Systems Management

This course encompasses an overview of the operations of a firm relevant to strategic management. Identified and analyzed are the positions and roles of construction management personnel and their interrelationship with key individuals external to the company. Global issues impacting management are discussed.

Pre: CM 413 (or concurrently), ACCT 210

CM 497 (1-9) Internship

CM 498 (1-6) Internship

Supervised work experience in design or design related field within private business, industry or a government agency.

CM 499 (1-4) Individual Study

An in-depth study on a topic of particular interest to the student. Project must be approved by project supervisor and department chairperson.
