

## **Description of Construction Management Program Courses**

### **CMP 101 Principles of Building Construction Management**

**Semester:** Fall of every year. Summer of every year.

**Credits:** Total Credits: 2 *Lecture/Recitation/Discussion Hours: 2*  
2(2-0)

**Restrictions:** Not open to seniors.

**Description:** Historical developments, current issues and trends in commercial and residential construction industries.

**Semester Alias:** BCM 101

### **CMP 124 Residential Construction Materials and Methods**

**Semester:** Spring of every year. Summer of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Recommended Background:** (CMP 101)

**Description:** Properties of construction materials and their application in residential construction.

**Semester Alias:** BCM 124

### **CMP 210 Commercial Construction Methods**

**Semester:** Fall of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 101 or concurrently and CMP 124)

**Corequisite:** CMP 211 concurrently

**Description:** Commercial construction: principles, materials, assemblies, and commercial blueprints.

**Semester Alias:** BCM 210

### **CMP 211 Building Codes**

**Semester:** Fall of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 101 or concurrently and CMP 124)

**Corequisite:** CMP 210 concurrently

**Description:** Construction codes: structural, mechanical, electrical, and plumbing. Building safety and accessibility.

**Semester Alias:** BCM 211

### **CMP 222 Statics and Strengths of Materials**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 210 and CMP 211) and (MTH 124 or MTH 132 or LBS 118) and (PHY 183 or PHY 231 or PHY 231B or PHY 231C)

**Not open to students with**

**credit in:** ME 221 or ME 222

**Description:** Equilibrium of forces. Free body diagrams. Force components. Bending moments. Stress and strain. Mechanical properties of materials. Beams and trusses. Computer applications. Indeterminate structures.

**Semester Alias:** BCM 222

### **CMP 230 Utility Systems**

**Semester:** Spring of every year.

**Credits:** Total Credits: 4 *Lecture/Recitation/Discussion Hours: 4*  
4(4-0)

**Prerequisite:** (CMP 210 and CMP 211)

**Description:** Heating, cooling, ventilating, electrical, gas, lighting, water, waste water, telecommunications, fire protection, safety, security, and sound control systems in residential and commercial construction. Applicable codes.

**Semester Alias:** BCM 230

### **CMP 305 Site Construction and Measurement**

**Semester:** Fall of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*  
3(2-2)

**Prerequisite:** (CMP 230)

**Restrictions:** Open only to juniors or seniors in the Construction Management major.

**Description:** Site construction methods, materials and equipment for buildings, soil, foundation, erosion, and storm water. Layout, leveling, surveying, and underground utilities.

**Semester Alias:** BCM 305

### **CMP 315 Construction Quantity Surveying**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*  
3(2-2)

**Prerequisite:** (CMP 305) and (CSE 101 or CSE 131 or CSE 231 or CSS 110 or LBS 126)

**Restrictions:** Open only to juniors and seniors in the Construction Management or Civil Engineering major.

**Description:** Measurement of quantities for construction projects. Work breakdown structure. Industry standards.

**Semester Alias:** BCM 315

### **CMP 322 Structural Systems**

**Semester:** Fall of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 222) or (ME 221 or ME 222)

**Restrictions:** Open only to juniors or seniors in the Construction Management or Civil Engineering majors.

**Not open to students with credit**

**in:** CE 406

**Description:** Structural design using wood, steel and concrete. Beams, columns, footings, and foundation walls. Loading, soils.

**Semester Alias:** BCM 322

### **CMP 325 Real Estate Principles and Construction Finance**

**Semester:** Fall of every year.

**Credits:** Total Credits: 4 *Lecture/Recitation/Discussion Hours: 4*  
4(4-0)

**Prerequisite:** (EC 201 or EC 202 or EC 251H or EC 252H) and (MTH 124 or MTH 132 or LBS 118)

**Restrictions:** Open only to juniors or seniors in the Construction Management major or approval of department.

**Description:** Financial methods and instruments utilized in construction, rehabilitation, development, and purchase of real estate. Terms, contracts, valuation, brokerage, taxation, risk, and interest rate analysis.

**Semester Alias:** BCM 325

### **CMP 328 Construction Presentation Graphics**

**Semester:** Fall of every year. Spring of every year.

**Credits:** Total Credits: 2 *Lecture/Recitation/Discussion Hours: 1 Lab Hours: 2*  
2(1-2)

**Prerequisite:** (CMP 230) and (CSE 101 or CSE 131 or CSE 231 or CSS 110 or LBS 126)

**Restrictions:** Open only to juniors or seniors in the Construction Management major.

**Description:** Graphic communication methods used in construction organizations.

**Semester Alias:** BCM 328

### **CMP 353 Land Development**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 211 and CMP 305) and (CMP 325 or UP 458)

**Restrictions:** Open only to juniors or seniors in the Construction Management or Civil Engineering or Landscape Architecture or Urban and Regional Planning major.

**Description:** Methods and practices of land development. Market research. Financial feasibility. Land use regulations. Legal documentation. Site analysis and design. Case studies.

**Semester Alias:** BCM 353

### **CMP 385 Construction Documents and Contracts (W)**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 305) Completion of Tier I writing requirement.

**Restrictions:** Open only to juniors and seniors in the Construction Management or Civil Engineering or Landscape Architecture major.

**Description:** Construction contracts for commercial and residential projects. Contract procedures, bidding, changes, substitutions. Specifications. Insurance, bonding, claims, disputes, and payments. Responsibilities of owners and contractors.

**Semester Alias:** BCM 385

### **CMP 401 Construction Safety Management**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 305)

**Recommended Background:** (CMP 385 or CMP 423 or concurrently)

**Restrictions:** Open only to juniors or seniors in the Construction Management or Civil Engineering major.

**Description:** Construction safety with Occupational Safety and Health Administration (OSHA) emphasis. General safety and health provisions, records, and safety management programs. Personnel protection and life saving equipment. Economic impact of safety program.

**Semester Alias:** BCM 401

### **CMP 411 Construction Project Scheduling**

**Semester:** Fall of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*  
3(2-2)

**Prerequisite:** (STT 200 or STT 201 or STT 315 or STT 421) and (CMP 315 and CMP 322)

**Restrictions:** Open only to juniors or seniors in the Construction Management or Civil Engineering major.

**Description:** Basic construction project scheduling procedures. Work breakdown structure, critical path method, and scheduling logic. Activity durations, status reports, resource allocation, and control.

**Semester Alias:** BCM 411

### **CMP 415 Cost Estimating and Analysis**

**Semester:** Fall of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 2 Lab Hours: 2*  
3(2-2)

**Prerequisite:** (CMP 315 and CMP 385)

**Description:** Estimation of construction project costs: direct and indirect, labor, material, and equipment. Overhead and profit. Bidding. Computer-based estimating.

**Semester Alias:** BCM 415

**CMP 423 Construction Project Management**

**Semester:** Fall of every year. Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 3*  
3(3-0)

**Prerequisite:** (CMP 385 and CMP 411 or concurrently and CMP 415 or concurrently)

**Restrictions:** Open only to seniors in the Construction Management or Civil Engineering major.

**Description:** Construction management principles and practices. Project planning and controls.

**Semester Alias:** BCM 423

**CMP 435 Residential Building Projects (W)**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 1 Lab Hours: 4*  
3(1-4)

**Prerequisite:** (ACC 201 and ACC 202) or (ACC 230) and (CMP 328 and CMP 353 and CMP 423 or concurrently) and completion of Tier I writing requirement.

**Restrictions:** Open only to seniors in the Construction Management major.

**Description:** Development of a residential project and business plan.

**Semester Alias:** BCM 435

**CMP 436 Commercial Building Projects (W)**

**Semester:** Spring of every year.

**Credits:** Total Credits: 3 *Lecture/Recitation/Discussion Hours: 1 Lab Hours: 4*  
3(1-4)

**Prerequisite:** (ACC 201 and ACC 202) or (ACC 230) and (CMP 328 and CMP 353 and CMP 423 or concurrently) and completion of Tier I writing requirement.

**Restrictions:** Open only to seniors in the Construction Management major.

**Description:** Evaluation, procurement, and management of commercial building projects.

**Semester Alias:** BCM 436

**CMP 490 Independent Study**

**Semester:** Fall of every year. Spring of every year. Summer of every year.

**Credits:** Variable from 1 to 4

**Reenrollment Information:** A student may earn a maximum of 8 credits in all enrollments for this course.

**Restrictions:** Open only to Construction Management majors. Approval of department; application required.

**Description:** Special problems in acquisition and development of residential land, design, construction technology, building materials, finance, marketing, construction management, or land use codes and regulations.

**Semester Alias:** BCM 490

### **CMP 491 Special Topics in Building Construction Management**

**Semester:** Fall of every year. Spring of every year.

**Credits:** Variable from 1 to 4

**Reenrollment Information:** A student may earn a maximum of 8 credits in all enrollments for this course.

**Prerequisite:** (CMP 210)

**Restrictions:** Open only to Construction Management majors. Approval of department.

**Description:** Topics such as computer methods in building construction management, construction technology, solar energy, special land use codes, or new technology management.

**Semester Alias:** BCM 491

### **CMP 493 Professional Internship in Building Construction Management.**

**Semester:** Fall of every year. Spring of every year. Summer of every year.

**Credits:** Total Credits: 3  
3(0-0)

**Reenrollment Information:** A student may earn a maximum of 6 credits in all enrollments for this course.

**Restrictions:** Open only to juniors or seniors in the Construction Management major. Approval of department; application required. A student may earn a maximum of 6 credits in all enrollments of this course.

**Description:** Supervised professional experiences in agencies and businesses related to a student's major field of study.

**Semester Alias:** BCM 493