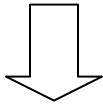




# College of Lake County

**A.A.S in Construction Management Technology**



**ILLINOIS STATE UNIVERSITY**



## **INTERESTED IN A BACHELORS DEGREE IN CONSTRUCTION MANAGEMENT?**

Several options are available to students at CLC who wish to pursue a Bachelors degree upon completion of the A.A.S. in Construction Management from CLC. CLC students can pursue a Bachelors Degree in Construction Management from ISU, Purdue-Calumet, MSOE, or Bradley. Information on CM programs at those schools is attached.

Some students elect to pursue a B.S. in Business Administration, which tends to be easier to work on at night or weekends. Several programs are being offered at the University Center of Lake County (<http://www.ucenter.org/>)

For more information or to set up an appointment for advising, contact program coordinator Rob Twardock at 847-543-2903 or [rtwardock@clcillinois.edu](mailto:rtwardock@clcillinois.edu).

<http://www2.cast.ilstu.edu/tec/CM/>

<b>Transfer Student 2-year Suggested Plan of Study (with a A.S. or A.A. degree):</b>	
<b>Junior Year/Fall Semester</b>	<b>Junior Year/Spring Semester</b>
TEC 100 Intro. to Industrial Technology	TEC 222 Mechanical Systems for Buildings
TEC 116 Technical Drawing	TEC 224 Soils & Foundations
TEC 120 Introduction to Building Construction	TEC 226 Construction Contracts & Law
TEC 121 Construction Methods	TEC 229 Cost Estimating & Project Planning
TEC 123 Construction Documents & Quantity Takeoff	TEC 270 Managing Technological Systems
TEC 292 Materials Technology	TEC Elective
15 hours	17 hours
<b>Senior Year/Fall Semester</b>	<b>Senior Year/Spring Semester</b>
TEC 223 Surveying and Building Layout	HSC 272 Construction Safety
TEC 313 Quality Sys. for Tech.	TEC 322 Bldg Codes & Inspection
TEC 325 Comp. Est. & Scheduling	TEC 327 Design of Bldg Struct.
TEC 326 Construction Finance & Accounting	TEC 394 Const. Mgmt & Admin
TEC Elective	SEQ Elective
	FIL 185 Legal, Ethical and Social Environment of Business
15 hours	17 hours

Transfer students completing the 2-year A.A. or A.S. plan of study or the [Illinois Transferable General Education Core Curriculum](#), commonly referred to as IAI are strongly encouraged to complete the equivalent of the following required courses in the Construction Management program prior to coming to ISU.

ACC	131	Financial Accounting
ITK	155.02	Introduction to Computers
CHE	102	Chemistry & Society
ECO	105	Principles of Economics
MATH	120	Finite Mathematics
MQM	100	Statistical Reasoning
PHY	105	Fundamentals of Physics
PSY	131	Social Psychology

A note about the ECO 105 class it is a combination class of Micro & Macro that is a pre-requisite for another class. Usually at transfer institutions students will have to take 2 classes instead of taking 1 at ISU. Another Chemistry or Geology class is also required and the student may choose what class to take. Any questions about courses please check with the [Advisor](#).

# ILLINOIS STATE UNIVERSITY

<p><b>Articulation Guidelines</b> College of Lake County and Construction Management Illinois State University</p> <p>2004-2005 ISU Catalog Last Revised: August 2004</p>	<p><b>Contact:</b> Richard Boser, CM Program Coordinator Dept. of Technology Illinois State University Normal, IL 61790-5100 (t)309.438.2609 (f)309.438.8626 <a href="mailto:raboser@ilstu.edu">raboser@ilstu.edu</a> 309.438.3661 Office &amp; Advisor <a href="http://www.tec.ilstu.edu">www.tec.ilstu.edu</a></p>	<p><b>Contact:</b> Rob Twardock Bldg Const Tech Program Coordinator College of Lake County 19351 W. Washington Street Grayslake, IL 60030-1198 847.223.6601 <a href="mailto:rtwardock@clclllinois.edu">rtwardock@clclllinois.edu</a> <a href="http://www.clclllinois.edu/">http://www.clclllinois.edu/</a></p>					
<b>IAI Categories &amp; Recommended Courses</b>							
	<b>Course #</b>	<b>ISU Course Title</b>	<b>Hours</b>	<b>Sr Hr</b>	<b>Equivalent</b>	<b>Hours</b>	<b>Course Title</b>
<b>Communication (3 courses)</b> * Gen Ed based on Illinois Articulation Initiative	ENG 101 ENG 145 COM 110	Language & Composition I (3) Language & Composition II (3) Language & Communication (3)	3 3 3		ENG 121 CMM 121	3 3	English Composition Fundamentals of Speech
<b>Humanities &amp; Fine Arts (3 courses)</b>	Elect Elect Elect	Students Choice as per IAI (3) Students Choice as per IAI (3) Students Choice as per IAI (3)	3 3 3				
<b>Mathematics (1 or 2 courses)</b>	MAT 120	Finite Mathematics (4)	4		<i>MTH 127</i>		<i>Finite Math (Not req. by AAS)</i>
<b>Physical &amp; Life Sciences (2 courses)</b>	CHE 102 PHY 105 Elect Elect	Chemistry & Society (3) Fundamentals of Physics (4) Sr. Hr Science Elective (3) IAI Life Science (3)	3 4 3 3		<i>CHM 121</i> <i>PHY 121</i>		<i>General Chemistry (Not req. by AAS)</i> <i>General Physics (Not req. by AAS)</i>
<b>Social &amp; Behavioral Sciences (3 courses)</b>	PSY 110 Elect Elect	Explaining Human Behavior (3) Students Choice as per IAI (3) Students Choice as per IAI (3)	3 3 3		PSY 121	3	Introduction to Psychology
<b>Total -- IAI min 37 hours</b>		35					
<b>TEC Major Core (16 Hours Req.)</b>	ITK 155.02 MQM 100 TEC 100 TEC 270 TEC 313 HSC 272	Intro to Microcomputers (3) Business & Economic Stats (3) Intro to Ind. Tech. (1) Managing Tech Systems (3) Quality Systems for Tech. (3) Construction Safety (3)	3 3 1 3 3 3		CIS 120 <i>MTH 222</i>	3 3	Intro to Computers <i>Elementary Statistics (Not req. by AAS)</i>
<b>CM Core (42 Hours Req.)</b>	TEC 116 TEC 120 TEC 121 TEC 123 <b>TEC 222</b> TEC 223 <b>TEC 224</b> TEC 226 <b>TEC 229</b> TEC 292 TEC 322 TEC 325 TEC 326 TEC 327 TEC 394	Technical Drawing (3) Intro. to Bldg. Const. (3) Construction Methods (2) Const Docs & Qty Takeoff (3) <b>Mech. Syst. for Buildings (3)</b> Surveying & Bldg. Layout (3) <b>Soils and Foundations (3)</b> Contracts and Law (2) <b>Cost Est. &amp; Project Planning (3)</b> Materials Technology (3) Bldg. Codes & Inspection (2) Const. Sched. & Planning (3) Const. Finance & Accounting (3) Design of Building Structures (3) Const Mgmt & Admin (3)			ARC 121 CMT 113 CMT 117 CMT 112 <b>CMT 118</b> CMT 111 <b>CMT 212</b> CMT 213 <b>CMT 214</b> CIV 214 CMT 119	3 3 3 3 <b>3</b> 3 3 3 3 3 3 3	Architectural Graphics Construction Materials Construction Methods Construction Blueprint Reading <b>Mechanical &amp; Electrical Equipment</b> Construction Layout <b>Principles of Heavy Construction</b> Construction Law & Documents <b>Construction Estimating</b> Civil Materials & Testing Specifications & Building Codes
<b>CM Electives (6 Hours Req.)</b>	Elect 6 hours <b>TEC 211</b> TEC 225 TEC 328 TEC 398	Elect 6 hours <b>Architectural Drafting (3)</b> Equipment Management (3) Residential Development (3) Professional Practice (3)	6 3 3 3	3		3	Const Elective - ARC 171, CIV 111,
<b>Business &amp; Economics (13 Hours Req.)</b>	ACC 131 FIL 208 ECO 105	Financial Accounting (3) Legal Environment of Business (3) Principles of Economics (4)	3 3 4	3	<i>ACC 121</i>	3	<i>Financial Accounting (Not Req. by AAS)</i>
<b>Management Electives (3 Hours)</b>	Elect 3 hours FIL 260 MRK 230 TEC 320 TEC 370	Elect 3 hours Real Estate Principles (3) Intro to Marketing (3) Project Management (3) Supply Chain Logistics (3)	3 3 3 3	3			
				82 Total BS	39 Sr Hr ISU	54 Total	
<p>* CM Req 94 Hrs exclusive of IAI * Minimum 120 Hrs Req for BS Degree</p> <p><b>NOTE: The aforementioned course articulations are believed to be accurate as of the last revision date. However, this is not a contract and is only intended for guidance purposes.</b></p>		<p><i>*Senior Hour Proficiency Credit for Students with Associate of Applied Science (AAS) degrees: Transfer students with an AAS degree in a related Construction area, who have transferred coursework equivalent to, or substitutable for, any of the courses list in parentheses, or applicable electives listed in the catalog, may earn a maximum of nine (9) senior hours and proficiency credit upon successful completion ("C" or better) of a corresponding upper-division course: TEC 322 (TEC 211); TEC 325 (TEC 222); TEC 327 (TEC 224); TEC 328 (TEC 229).</i></p>					
<b>Accredited by the American Council for Construction Education</b>							



**Bachelor of Science,  
Construction Management & Engineering Technologies (130 credit hours)**  
<http://www.calumet.purdue.edu/cmet/>

The objective of the Bachelor of Science degree program in Construction Management & Engineering Technologies (CMET) is to broaden the background of the associate degree graduate in the areas of construction methods, inspection, supervision, scheduling and management, with additional emphasis on business and communication. The intent of the bachelor of science program is to prepare you to take advantage of opportunities in management positions in which direction of personnel, as well as construction projects, is required. This program does not lead to professional registration in architecture or engineering.

[Suggested plan of study with ARET AS program.](#)

[Suggested plan of study with CET AS program.](#)

Either of the aforementioned AS programs plus:

**Construction Management & Engineering Technologies and Related Areas**

	Structural Applications
CMET 325	Shoring, Formwork and Scaffolding
CMET 335	Construction Operations
CMET 341	Construction Inspection
CMET 344	Construction Costs and Bidding
CMET 442	Construction Management
CMET 445	Construction Scheduling
CMET 450	Senior Project Survey
CMET 489	Senior Project
CMET 490	Construction Surveying
CET 306	Property and Behavior of Soils
CET 331	Engineering Project Management & Economic Analysis
IET 308	

**Communication**

ENGL 420	Business Writing
COM 315	Communication of Technical Information

**Mathematics**

MA 222	Calculus for Technology II
--------	----------------------------

**Construction Electives (Two Courses)**

Construction ElectiveS to be selected with Academic Advisor.

**Science**

One Science elective: any lab science approved by CMET department.

**Humanities Elective**

One General Education Elective from: Philosophy, History, Foreign Languages, Anthropology, Art History, or English Literature.

**General Elective**

One General Elective from: Philosophy, History, Foreign Languages, Eng. Literature, Anthropology, Art History, Soc., Psy.

**Management**

ECON 210	Principles of Economics
----------	-------------------------

**Construction Management & Engineering Technologies Office**

Anderson Bldg, Room 222  
2200 169th Street  
Hammond, Indiana  
46323-2094

**Office Hours:**

Monday - Friday:  
8:00 am - 4:30 pm

**Phone:**

219/989-2332  
1-800 HI-PURDUE, x.2332  
Locally within Indiana & Illinois

**Email:**

gregory@calumet.purdue.edu

**Program Director:** [Professor Michael Emmer](#)  
**Office:** CC-61B  
**Phone:** (414) 277-4501  
**e-mail:** [Send e-mail](#)  
<http://www.msoe.edu/ae/bscm/>



*Are you a hands-on, practical, get-it-done person who would like to work on the team that erects the impressive buildings in which we work and live?*

The construction process grows more complex all the time with increasing varieties of materials, tradesmen, equipment and environmental requirements. The world needs people who can understand and use designers' ideas to build the wonderful structures that serve mankind. Construction managers pick up where design stops, moving the building process from mere concepts to reality. As young professionals these men and women know the details of construction materials and methods so they can estimate costs, schedule work, oversee job site activities and accomplish the many other project management tasks that serve clients' needs for safe and high quality work completed on time and under budget. The work of few professions stands out as strongly or has served the world as long as that of constructors, which may be why construction managers tend to be so satisfied with their lives' work.

Graduates of the construction management (CM) program at MSOE are among the best-prepared anywhere to enter the nation's dynamic building construction industry as project professionals. Fully accredited, the program graduates students who show superior performance on the standard Constructor Qualification Examination, taken when seniors, by consistently scoring above the national average.

## Construction Management Students

**MSOE teams have three times been #1 of about 70 competing schools since 2000 in the national Commercial Construction competition** sponsored by the Associated General Contractors and Associated Schools of Construction. The Commercial team has taken first place in the Great Lakes region every year since 1999. The Design-Build team earned #2 and #3 berths at the national competitions and top regional billing four years since 2000. With about 100 CM students, we are a smaller, quality program. The laboratory-based, learn-by-doing, small class educational philosophy of MSOE is proven highly effective.

In 2005, for the first time ever, MSOE teams were national champions in both the Design-Build and Commercial Construction categories.  
- [read more](#) -

### Careers in Construction Management

Placement of graduates in the construction management program is excellent, evidenced by its average 97 percent graduate placement rate over the past five years. The 2003-2004 average starting salary for CM graduates from MSOE was \$47,400. Classes in engineering principles, construction project management and business imperatives are interwoven throughout the program to empower MSOE construction management graduates with:

- technical ability
- managerial competence
- leadership skills
- professional ethical behavior



These provide the basis for a highly rewarding career building and maintaining the world around us. Ever-increasing project complexity and the need to replace or repair so much of the infrastructure upon which all lives depend combine to keep job opportunities bright for construction managers in the years ahead.

A graduate often begins a career as a **field engineer** or **assistant project manager**, who spends much time out-of-doors at the site laying out the work, estimating and controlling costs, scheduling work activities, and applying their initiative to keep the project on schedule, within budget, of high quality, and safe for all.

After proving him- or herself, they can advance to become a **project manager** with full authority for all aspects of the project, closely coordinating with and advising owners and designers, perhaps from the earliest stages of project design conception and until completion. They might also choose to remain more associated with activities on the construction site and advance to become a **construction superintendent**, who directly oversees all job actions that erect the building, making sure that people, equipment, and materials are well-coordinated to keep the work progressing as planned.

Some graduates become a **cost estimator** or **scheduler**, specializing in matters of project construction costs or determining how much time work activities and projects might demand. Specialized positions of these types normally develop in mid-sized and large construction organizations. Such concerns with calculating and controlling time and money permeate every project of the construction industry and, therefore, they are integrated throughout the MSOE Construction Management program.

These jobs are only examples of what our graduates often do. Many other types of management opportunities in the construction industry are open to those who earn the CM degree. Some of our alumni, for example, choose to work in residential or heavy construction. The MSOE CM education imparts a wide variety of knowledge and skills, so the sky is the limit for our graduates' aspirations. Undoubtedly, new types of management jobs will develop as the construction industry evolves into the future, and MSOE CMs will be amply prepared to meet the challenges to lead the industry.

## Double Major Option

**Earn a second degree in only one more year.** A popular and valuable optional program of study permits students to earn both the construction management and the architectural engineering bachelor's degrees in five years: the "double major option." This uncommon combination of carefully integrated engineering and construction coursework gives "AE/CM" graduates the comprehensive education that often, otherwise must come from an engineering degree followed by graduate studies in construction management — except AE/CM requires only one more year of study, not multiple years. Double major graduates are qualified to seek the Professional Engineer license, as well as the Professional Constructor certification. This design-construction education is very well-matched to necessary knowledge for design-build construction project delivery, which continues to grow in popularity.

If this quick description of what we can teach you has sharpened your interest, please give us a call at (800) 332-6763 or send us an [e-mail](#). We would be proud to tell you more about what we offer. To arrange for a personal tour, contact the [Admission Office](#).



<http://www.bradley.edu/academics/eng/Civil/Html/index.htm>

The construction industry is large, varied, and complex. It is intimately interwoven with, and exerts significant influence on, the overall economy of our nation. Constructors — the modern construction professionals — are educated in engineering and architectural principles in the building process, allowing effective communication with the many persons with whom contact is necessary: the design professionals (engineers and architects), specialty subcontractors, manufacturers and distributors of construction materials and products, financiers and others. Additionally, and most importantly, the constructor is a manager. The constructor's education must include the essentials of contemporary management philosophy, sound business and construction practice, and enlightened human relations. This multidisciplinary curriculum has been developed from these aims which are in consonance with the goals of the Associated Schools of Construction, and with the philosophy of the American Institute of Constructors.

The program was developed for the typical student interested in general preparation for a construction career. A minor in business administration or management is possible by careful selection of electives and a total of 131 semester hours. The Bachelor of Science in Construction (BSC) degree requires a minimum of 126 approved semester hours.

#### **Listing of Construction Courses**

- CON 100 Introduction to Construction, 1 hr.**
- CON 124 Emerging Technologies in CEC, 2 hrs.**
- CON 132 Construction Graphics, 2 hrs.**
- CON 200 Engineering Co-op, 0 hrs.**
- CON 224 CADD in Construction, 3 hrs.**
- CON 262 Mechanical and Electrical Systems for Buildings, 3 hrs.**
- CON 270 Materials and Methods of Construction, 3 hrs.**
- CON 272 Materials and Methods of Construction II, 3 hrs.**
- CON 330 Housing, 3 hrs.**
- CON 342 Construction Equipment and Methods, 3 hrs.**
- CON 352 Urban Environment, 3 hrs.**
- CON 356 Construction Industry Safety Practices, 3 hrs.**
- CON 368 Advanced Environmental Technologies in Construction, 3 hrs.**
- CON 372 Construction Methods Improvement, 3 hrs.**
- CON 390 Microcomputers in Construction, 3 hrs.**
- CON 392 Construction Scheduling, 3 hrs.**
- CON 394 Construction Labor and Unions, 3 hrs.**
- CON 395 Construction Claims and Change Orders, 3 hrs.**
- CON 396 Construction Estimating, 3 hrs.**
- CON 408 Senior Seminar, 2 hrs.**
- CON 409 Special Topics, 1 - 4 hrs.**
- CON 487 Steel and Concrete Structures, 3 hrs.**
- CON 489 Alternate Materials Structures, 3 hrs.**
- CON 492 Construction Contracts, 2 hrs.**
- CON 494 Advanced Construction Practices, 3 hrs.**
- CON 495 Construction Cost Control, 3 hrs.**
- CON 498 Senior Project, 3 hrs.**

#### **Department of Civil Engineering and Construction**

1501 West Bradley Ave.

Peoria, IL 61625

Phone: (309) 677-2942

Fax (309) 677-2867