



Office of Academic Affairs

9201 University City Boulevard, Charlotte, NC 28223-0001  
t/ 704.687.2224 www.uncc.edu

TO: Faculty Council Members  
FROM: Sonya Hardin, Faculty President  
DATE: March 11, 2009  
RE: Consent Calendar

Attached is the Consent Calendar (See Article V, Section 3.A (3 & 4), J. (3 & 5) and K.3 of the Standing Rules of the Faculty Council.) consisting of these proposals:

- CSLG 11-19-08 Establishment of Graduate Certificate in Play Therapy
- ET 9-02-08a Establishment of Master of Science in Construction and Facilities Management

Below are the catalog copy descriptions. If you wish to read the full proposals, they are posted on the Academic Affairs website.

If there is an objection regarding this proposal, it must be registered with the Faculty Governance Secretary (Julie Putnam, ext. 5719) by **5 PM on March 25, 2009**. If no objections are registered, they will stand approved.

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| • <b>CSLG 11-19-08</b> | <b>Establishment of Graduate Certificate in Play Therapy</b> |
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Catalog Copy:

1. Program Description: Requirements for Completion of the Program

Students must complete 4 of the following classes for completion of the Graduate Certificate:

- |           |  |
|-----------|--|
| CSLG 7142 | Introduction to Play Therapy. Enhancing the counseling relationship with children by using play media to establish facilitative relationships with children under the age of ten years. This course has a clinical component of conducting play sessions with young children as a part of course requirements. |
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CSLG 7143

Filial Therapy. Prerequisite: CSLG 7142. This advanced level play therapy course focuses on concepts

and skills for training parents/teachers to be therapeutic agents in children's lives through the utilization of child centered play therapy skills in regularly scheduled structured play sessions with children. This course has a clinical component of conducting filial sessions with parents or teachers as a part of course requirements.

CSLG 7144

Theory and Practice of Play Therapy Prerequisite: CSLG 7142. An advanced exploration of fundamental issues involved in play therapy, this seminar course will focus on an in-depth study of various theoretical approaches, modalities, techniques, and applications of play therapy. Historical and theoretical foundations of play therapy are presented as are current issues in providing appropriate counseling services to children aged three to ten years old. This course has a clinical component of conducting play sessions with young children as a part of course requirements.

CSLG 6000

Special Topics in Play Therapy. Prerequisite: CSLG 7142. This special topics course will focus on a variety of topics in play therapy such as group play therapy, diversity issues in play therapy, supervision in play therapy, and using creative arts in play therapy. The course may offer alternative formats, such as week-end sessions and distance learning options.

CSGL 6200

Introduction to Theories of Family Counseling. Examination of appropriate interventions in working with families focusing on major theorists and techniques in the field.

CSLG 7435

Internship will **only** be an option for students who are currently enrolled in the counseling program who enroll in the section designated for play therapy students. Prerequisites: CSLG 6100, 6101, 6110, 7130, 7142. Students will participate in delivering counseling services in a field setting and receive supervision of their work with children in play therapy in weekly seminars. A minimum of 20 hours per week in field placement. Offered on a pass/no credit basis.

**Admission Requirements:**

- A master's degree in counseling, social work, or psychology from an accredited university or a current student admitted to the Department of Counseling
  - Online application to Graduate Admissions accompanied by the application fee in effect.
  - GPA required for entry into a master's degree program.
  - Official transcripts
  - Personal statement of interest
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- **ET 9-02-08a Establishment of Master of Science in Construction and Facilities Management**

# Engineering Technology

## • MS in Construction and Facility Management (MSCFM)

## • Master's in Fire Protection & Administration (MFPA)

### Department of Engineering Technology

274 Smith Building

704-687-2305

[www.et.uncc.edu](http://www.et.uncc.edu)

### Graduate Director

Dr. Anthony L. Brizendine

### Graduate Faculty

Anthony L. Brizendine, Professor & Chair

David S. Cottrell, Assistant Professor

G. Bruce Gehrig, Associate Professor

John Hildreth, Assistant Professor

Maciej Noras, Assistant Professor

Carlos Orozco, Associate Professor

Peter Schmidt, Assistant Professor

Deborah Sharer, Associate Professor

Barry Sherlock, Professor

Jozef Urbas, Assistant Professor

Sheng-Gou Wang, Professor

Aixi Zhou, Assistant Professor

### Programs of Study

The Department of Engineering Technology provides opportunities for discipline-specific and multidisciplinary graduate-level education in construction and facility management and closely related areas.

Advanced course work and research are used to enhance professional development, improve technical competency, and initiate a life-long learning experience.

## MASTER OF SCIENCE IN CONSTRUCTION AND FACILITY MANAGEMENT

### Admission Requirements

- An earned undergraduate degree in construction management, facility management, engineering

technology, engineering, architecture or a closely related field

- An undergraduate GPA of 2.75 or better
- Acceptable scores on the verbal, quantitative, and analytical sections of the GRE
- Positive letters of recommendation
- A combined TOEFL score of 220 (computerbased) or 557 (paper-based) is required if the previous degree was from a country where English is not the common language
- Integral and differential calculus (MATH 1120 or 1121 or ETGR 3171 at UNC Charlotte or equivalent from other institution).
- Statistics (STAT 1220 or STAT 3128 at UNC Charlotte or equivalent from other institution).
- Other credentials as required by the Graduate School

Acceptability for admission is based upon the applicant's record and background as determined by the department.

### Application Deadline

Applications can be received by the Graduate Admission Office any time prior to their published deadlines. In order to be considered for assistantships and tuition grants for the following academic year, students should apply by February 15 because the Department makes the first round of award decisions by March 15. However, the Department will evaluate admission applications at any time that complete applications are received by the Graduate School.

### Assistantships

Research and teaching assistantships are available from the Department on a competitive basis to highly qualified applicants/students.

### Tuition Grants

Tuition grants including out-of-state tuition differential waivers and in-state tuition support are available on a competitive basis for both out-of-state and in-state students, respectively.

### Degree Requirements

A minimum of 30 approved graduate credit hours is required for graduation. At least 15 semester hours must be in courses numbered 6000 or above. A

student may fulfill the 30-hour requirement by pursuing one of the two study options:

- a) 24 hours of course work plus 6 hours of thesis project
- b) 30 hours of course work and a comprehensive examination.

### **Admission to Candidacy Requirements**

Each student is required to submit a Plan of Study to the Department's Graduate Director before completing 18 hours of graduate credits. Upon completion of a substantial amount of graduate work, each student must file an Admission to Candidacy to the Graduate School by the published deadline for the semester of graduation.

### **Application for Degree**

Each student should submit an Application for Degree prior to graduation. If a student does not graduate in the semester identified on the Application, the student must complete a new form and repay the application fee to be considered for graduation in a subsequent semester.

### **Transfer Credit**

The Department accepts the transfer of graduate courses (6 credits maximum) taken at another institution or from UNC Charlotte prior to admission to the master's program in construction and facility management.

### **Core Courses**

All students must complete the following 18 credit common core:

CMET 5240 Safety & Risk Management  
CMET 5270 Operation of Constructed Facilities  
CMET 6130 Building Information Modeling  
CMET 6135 Advanced Construction Planning & Management  
CMET 6140 Building Energy Management  
CMET 6160 Research and Analytical Methods

Upon completion of the 18 credit hour common core students must select from either a construction management or facility management specialization. Students selecting the construction management option must complete the following 6 credit hour core:

CMET 6180 Alternative Project Delivery Methods  
CMET 6285 Quality Assurance in Construction  
Student selecting the facility management option must complete the following 6 credit hour core:  
CMET 6145 Facilities Management Financial Analysis  
CMET 6250 Asset Management for Facility Managers

### **Capstone Experiences**

Students pursuing a master's degree in construction management and facility management have two options to complete the 30-credit hour program.

- a) 24 hours of course work plus 6 hours of thesis project
- b) 30 hours of course work and a comprehensive examination.

Both options require the formation of a program committee.

The thesis option is reserved for students performing research under formal graduate research or teaching assistantships. Students receiving such assistantships are required to pursue the thesis option. The thesis option requires students to submit a written thesis and orally defend their work before their program committee.

All non-thesis students must complete an additional 6 credit hours of major elective coursework within their technical specialty and to complete a formal comprehensive examination.

The comprehensive examination is a written exam. A student's exam will be scheduled when he/she has at least 24 hours of course credit completed or in progress. The student's graduate advisor and the examining committee will coordinate the examination (to be offered once in the Fall and once in the Spring semesters), preparing the exam with the assistance of members of the student's program committee. The exam will measure the student's mastery of theories and applications in the selected area of specialization within the discipline. Students will have only two opportunities to receive passing marks on the examination.

### **Advising**

Each student is supervised by his/her graduate advisor and a program committee.

## **Program Committee**

The Program Committee shall consist of at least three graduate faculty members. A graduate faculty from outside the ET department or from outside the student's major area-of-study may serve as a member of the Program Committee. The student's ET graduate advisor shall chair the committee.

## **Research Opportunity/Experience**

Students in construction and facility management enjoy a curriculum with opportunities for interdisciplinary research, study abroad, and active participation in a growing research program. Programs of study can be tailored to suit individual needs and interests. The ET web site ([www.et.uncc.edu](http://www.et.uncc.edu)) provides current areas of research conducted by the program faculty.

# **COURSES IN CONSTRUCTION AND FACILITY MANAGEMENT**

## **CMET 5240. Safety & Risk Management. (3)**

Prerequisite: CMET 4228 or consent of instructor. Topics of study will include causes and prevention of industrial accidents, hazardous processes and material, OSHA regulations and requirements, and design of accident prevention programs. *(Spring)*

## **CMET 5270. Operation of Constructed Facilities.**

**(3)** Prerequisite: CMET 3224 and ETCE 3271 or consent of instructor. Topics of study will include acquisition, operation, maintenance, and disposal of building systems, structures, permanent interiors, furniture, and equipment; grounds and other exterior elements. *(Spring)*

## **CMET 6000. Special Topics in Construction & Facility Management. (3)**

Study of specific new areas emerging in the various fields of construction and facility management. May be repeated for credit. *(On demand)*

## **CMET 6130. Building Information Modeling. (3)**

Prerequisite: ETCE 1104 or ETGR 1104 or consent of instructor. Topics of study will include the creation, management, and application of building information models to the construction, operation, and maintenance of a facility. Focus will be on 2D and 3D computer models of building components, renderings, animations, and interfacing with analysis tools. *(Fall)*

## **CMET 6135. Advanced Construction Planning & Management. (3)**

Prerequisite: ETCE 4126 or consent of instructor. Advanced methods for planning and controlling construction projects will be covered. Specific topics of study will include resource allocation, leveling and management, critical path method (CPM) and project evaluation and review techniques (PERT) of scheduling, project controls through cost-schedule integration, and schedule compression. *(Fall)*

## **CMET 6140. Building Energy Management. (3)**

Prerequisite: ETCE 3271 or ETME 3143 or consent of instructor. Topics of study will focus on the integrated planning of energy efficient technologies for building environmental control systems. Introduction to the design, planning, and optimization of HVAC systems and technology needed to integrate the heating, cooling, natural ventilation, lighting, electricity, and building energy management systems into a building's structure and design. *(Fall)*

## **CMET 6145. Facilities Management Financial Analysis. (3)**

Prerequisite: ETGR 3222 or ECON 2102 or consent of instructor. This course is a study of real property concepts, issues, and topics pertinent to the facility management professional to include fundamentals of commercial real estate investment, understanding market influences, contracts and property portfolio management. *(Fall)*

## **CMET 6155. Facility Instrumentation and Controls. (3)**

Prerequisite: ETME 3163 or consent of instructor. This course covers design and analysis of industrial process control instrumentation. Topics include process control devices and process control applications associated with industrial instrumentation and building and facility operation. *(Fall)*

## **CMET 6160. Research and Analytical Methods.**

**(3)** Prerequisite: STAT 1220 or consent of instructor. This course focuses on analytical and research techniques applicable to construction and facility management problems. Topics of study include defining research problems, experiment design, measurement, sampling, and analysis. *(Fall)*

## **CMET 6180. Alternative Project Delivery Methods. (3)**

Prerequisite: CMET 3224 or consent of instructor. This course provides study of the many organizational arrangements between construction owners, designers, contractors, and financiers. Delivery methods studied include design-bid-build (DBB), design-build (DB), construction management

(agency CM and CM@Risk), design-build-operate (DBO), and design-build-finance-operate (DBFO).  
(Fall)

**CMET 6250. Asset Management for Facility Managers. (3)** Prerequisite: CMET 5270 or consent of instructor. Study of useful life of building and infrastructure systems and creating a process to manage their life cycles; emphasis on justifying and funding capital projects. (Spring)

**CMET 6255. Advanced Plant Layout and Design. (3)** Prerequisite: CMET 5270 or consent of instructor. Topics of study include designing construction sites and facility plants with respect to material handling, equipment location, auxiliary services, capital requirements, safety, and personnel organization. (On demand)

**CMET 6285. Quality Assurance in Construction. (3)** Prerequisite: CMET 6160 or consent of instructor. This course covers the principles and applications of quantitative methods of quality control to production processes with an introduction to process control charts, Pareto charts, and other quality analysis tools for the construction industry. (Spring)

**CMET 6290. Temporary Structures in Construction. (3)** Prerequisite: ETCE 3163 or consent of instructor. Topics of study include temporary structures used to support construction operations such as concrete formwork, scaffolding systems, shoring systems, cofferdams, underpinning, slurry walls, and construction dewatering systems. (On demand)

**CMET 6295. Design & Improvement of Construction Operations. (3)** Prerequisite: CMET 6135. Topics of study include design of construction operations based on productivity concepts. Techniques for collecting data, analyzing, and formulating solutions to improve construction operations will be emphasized. (Spring)

**CMET 6800. Independent Study in Construction & Facility Management. (3)** Prerequisite: Consent of graduate committee advisor. Individual investigation and exposition of results for a directed project in construction and facility management. May be repeated for credit. (On demand)

**CMET 6900. Master's Thesis & Research. (1 – 6)** Prerequisite: Consent of graduate committee advisor. Individual investigation culminating in the preparation and presentation of a thesis. May be repeated for credit. (On demand)