



Department of Applied Engineering and Technology  
*School of Applied Sciences and Technology*  
College of Business & Technology (2019-20)

# Construction Management concentration

M.S. Degree in Technology Management (CIP 15.1501)

## Construction Management at EKU

Eastern Kentucky University established a construction program in the fall of 1977. As a member of the Associated Schools of Construction (ASC), the University has taken seriously its role in the education and training of construction professionals. In 1993, the undergraduate program was accredited by the American Council for Construction Education (ACCE), becoming one of 38 such accredited programs in the nation at that time and the first one in Kentucky. The undergraduate program received re-accreditation for the fourth consecutive time in 2016.

## Construction Management Careers

Graduates of the program receive a Master of Science degree in Technology Management. Most pursue C-Level management with a general contracting firm, starting in a variety of senior-level management positions. Typical positions include project manager, senior project manager, senior estimator, and scheduling consultant.

## The Program

The Master of Science degree in Technology Management, Construction Management concentration has been developed for those individuals who are interested in careers in construction organizations. Courses in the program have been designed to cause the student to examine principles, concepts, attitudes, and methods for dealing with many of the challenges which will confront the construction industry now and in the future. The program will be of value to those who are currently employed in construction and have professional growth aspirations to C-Level management.

A full-time Master's student typically takes 9 credit hours each semester. A part-time Master's student working full-time is more likely to take 6 credit hours each semester. In any case, students are encouraged to take classes each semester.

## Construction Specific Coursework

Construction Management Coursework (9 hours)

One of the following courses is typically offered each semester.

All these courses will not be offered in one semester.

- CON827 New Construction Entity
- CON828 LEED Principles & Procedures
- CON829 Construction Portfolio Management

**Total Hours Recommended per Semester: 6**

## For More Information

Department of Applied Engineering and Technology  
307 Whalin Complex  
Eastern Kentucky University  
521 Lancaster Avenue  
Richmond, KY 40475-3102  
Phone: 859-622-3232  
Web: <http://technology.eku.edu>



# MS Degree in Technology Management Construction Management concentration

## University Requirements

**Major Requirements.....9 hrs**

- **AEM 801** Economics for Lean Operations
- **AEM 804** Project Management
- **TEC 830** Creative Problem Solving

**Construction Management concentration.....9 hrs**

- **CON 827** New Construction Entity
- **CON 828** LEED Principles and Procedures
- **CON 829** Construction Portfolio Management

**Supporting Course Requirements .....6 hrs**

*This is not a complete list; other electives may be selected by advisement, including a number of MBA courses. Please check the pre-requisite requirements for these courses before enrolling.*

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• <b>CTE 800</b> Occupational Training Materials</li> <li>• <b>CTE 801</b> Occupational Training Methods</li> <li>• <b>CTE 888</b> Occupational Information</li> <li>• <b>HLS 830</b> Natural Hazards &amp; Threats to the Nation</li> <li>• <b>PSY 804</b> Intro to Industrial-Organizational Psychology</li> <li>• <b>PSY 873</b> Organizational Psychology</li> <li>• <b>PSY 874</b> Organization Change and Development</li> <li>• <b>PSY 875</b> Training and Development</li> <li>• <b>SSE 827</b> Issues in Security Management</li> <li>• <b>SSE 828</b> Industrial Safety Management</li> </ul> | <ul style="list-style-type: none"> <li>• <b>SSE 832</b> Construction Safety</li> <li>• <b>SSE 845</b> Personal/Environmental Hazards</li> <li>• <b>SSE 850</b> Ergonomics &amp; Human Factors</li> <li>• <b>SSE 851</b> Human Factors in Simple and Complex Systems</li> <li>• <b>SSE 852</b> Ergonomics Process &amp; Practice</li> <li>• <b>STA 700</b> Applied Statistical Inference</li> <li>• <b>STA 770</b> QC &amp; Reliability</li> <li>• <b>STA 775</b> Statistical Methods Using SAS</li> <li>• <b>STA 785</b> Experimental Design</li> <li>• <b>TEC 867</b> Independent Study in Technology</li> <li>• <b>UNP 700</b> Study Abroad</li> </ul> |
|---|--|

**Synthesis Experience .....6 hrs**

- TEC 860** (3 hrs) and **AEM 821** (3 hrs), OR **AEM 839** (6 hrs)
- **TEC 860** Research in Technology (3 hrs)
  - **AEM 821** Technology Project
  - **AEM 839** Applied Learning in Technology Management

**Technology Management Exit Requirement .....0 hrs**

- **GRD 868b** Technology Management Oral Comprehensive Exam

**Total Curriculum Requirements ..... 30 hrs**



## Construction Management Major Course Descriptions

- AEM 801 Economics for Lean Operations** (3 hrs) Cost management, budgeting, accounting, capital planning, and other topics necessary for making effective economic decisions from a lean perspective. Quantitative methods and computer applications used to formulate decisions relating to operations.
- AEM 804 Project Management** (3 hrs) Elements of managing projects including the use of modern project management software.
- AEM 821 Technology Project** (3 hrs) Prerequisite: AEM820 or departmental approval. An individually developed project related to the solution of a typical problem encountered by a manager in a technical environment. The problem is to be approved by the student's graduate committee and the results presented in open forum.
- AEM 839 Applied Learning in Tech Management.** (3-6 hrs) Prerequisite: Departmental approval. Planned and supervised experience in industry. The experience must be for at least one semester and the plan of activities must be approved by the student's graduate committee. Minimum of eighty hours work required for each academic credit.
- CON 827 New Construction Entity** (3 hrs) A study focused on establishing a new construction entity, which includes: selecting company type, establishing professional relationships, fulfilling federal/state mandates, developing a marketing plan and establishing a risk mitigation strategy.
- CON 828 LEED Principles and Procedures** (3 hrs) A study focused on understanding of the requirements and procedures for obtaining Leadership in Energy and Environmental Design (LEED) professional accreditation.
- CON 829 Construction Portfolio Management** (3 hrs) Prerequisites: Departmental approval. A study for seasoned project managers responsible for complex projects and/or portfolios of construction projects. From charrette to managing project execution, enterprise-wide project management principles will be examined.
- TEC 830 Creative Problem Solving** (3 hrs) A review and analysis of basic and applied research in the development of creative behavior with emphasis on its application to industrial teaching and industrial problem solving. Students will be expected to complete a term project showing their creative abilities.
- TEC 860 Research in Technology** (3 hrs) A study of research and research methods as they apply in technological fields. Involves the development of a review of literature, a research proposal, and the use of descriptive and inferential statistics.