



Construction Management Concentration

M.S. Degree in Applied Engineering and Technology Management

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 Applied Engineering and 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. This program is able to be delivered 100 percent online with an approximate class size of ten students.

The Program

The Master of Science degree in Applied Engineering and 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 6 semester hours, each semester. Master's students should 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



EKU's Construction Management Undergrad program is accredited by the American Council for Construction Education (ACCE).

For More Information

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The Department of Applied Engineering and Technology's Construction Management program has articulation agreements for transfer of credit and cooperation with Bluegrass Community and Technical College's Associate in Applied Science Degree in Architectural Technology and the Associate in Applied Science Degree in Civil Engineering Technology.



**Construction Management MS Degree Concentration
 University Requirements**

Major Requirements 18 hrs

- **AEM 801** Economics for Lean Operations
- **AEM 804** Project Management
- **CON 827** New Construction Entity
- **CON 828** LEED Principles and Procedures
- **CON 829** Construction Portfolio Management
- **TEC 830** Creative Problem Solving

Supporting Course Requirements 6 hrs

This is not a complete list; other electives may be selected, as advised.

- **AEM 706** Six Sigma Quality
- **AEM 802** Productivity Assessment and Analysis
- **AEM 805** Industrial Operations Research
- **ACC 820** Survey of Accounting
- **CIS 850** Management of Information Systems
- **CON 824** Engineering and Construction Forensics
- **CON 825** Airport Planning and Construction
- **CON 826** Practical Construction Law
- **GBU 850** Legal, Ethical and Social Environment of Business
- **STA 700** Applied Statistical Inference

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

Total Curriculum Requirements 30 hrs



Applied Engineering and Technology 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.