Facilities Engineering Management

NC STATE UNIVERSITY

Office of Professional Development

Diploma Program

"Anyone in the industry will benefit no matter how new or old you are to the field. Great program. Thank you so much."

— Ian Crotty, Epic Games, Cary, NC

Approved Course Provider for the Federal Buildings Personnel Training Act



FEM 2: March 11-15, 2024

FEM 3: June 3-7, 2024

FEM 1: August 19-23, 2024

Held at McKimmon Conference and Training Center NC State University, Raleigh NC

What Makes This Program Unique

NC State University established this non-degree diploma series to give you, the facility management professional, the knowledge and skills you need to help your facility reach its goals. You will receive your Facilities Engineering Management (FEM) diploma upon the successful completion of three one-week courses, totaling 96 contact hours of maintenance, electrical, mechanical, environmental, health and safety, construction, energy conservation and management instruction.

The weekly sessions do not have to be taken in sequence, but you must complete all the requirements within a three-year period.

Upon completion of the requirements, you will be expected to make a final presentation (15 minutes) on your specific experiences in the field of facilities management. You will then be awarded a non-credit diploma from the Office of Professional Development at NC State University.

Who Should Attend

The FEM Diploma Program is intended for managers of maintenance, maintenance supervisors, maintenance technicians with operations responsibilities, plant and facility engineers, maintenance planners and anyone who makes maintenance decisions regarding operations, repair or replacement.

Registration Fee

(per one-week session)

\$1,995 early registration* \$2,195 regular registration

Attend and You Will Receive

- Comprehensive digital files you can use every day on the job
- 4 networking luncheons and daily refreshment breaks
- A Certificate of Completion
- 3.2 CEUs/32 PDHs

Confirming Your Registration

Following your enrollment, you will receive a confirmation email, with detailed instructions and a receipt.

If you do not receive an email confirmation from NC State University, please check your spam folder if you have one. You may contact us at 919.515.2261 with any questions about your registration status.

Class Schedule

Monday

8 – 8:30 a.m. (check-in) 8:30 a.m. – 5 p.m. (class)

Tuesday-Thursday

8 a.m. – 5 p.m.

Friday

8 a.m. – noon

Where to Stay

Lodging and evening meals are not included in your registration fee. Sleeping accommodations are available at several hotels convenient to the NC State campus, but please note that these hotels are not within walking distance.

Lodging information and a list of nearby hotels can be found at **go.ncsu.edu/hotels**.

Save an additional \$200 for each additional registration from the same organization and government employees.* Call 919-515-2261 to find out how.

* You must register and pay at least two weeks prior to the course start date to receive the early registation fee.

If you are a person with a disability ...

and desire any assistive devices, services or other accommodations to participate in these courses, please email

ContinuingEducation@ncsu.edu or call 919.515.2261 during business hours (8 a.m. to 5 p.m. Eastern) to discuss accommodations at least two weeks in advance of the program start date.

"I believe that the knowledge gained during these courses will quickly pay for the cost of attending by saving maintenance costs as well as energy savings as they are applied to our own facilities. The knowledge gained in this program makes me more enthusiastic about applying the principles to my own situation."

— Bryan Wentz, Union County Department of Public Works, Monroe, NC



Facilities Engineering Management (FEM) 2

March 11-15, 2024

Areas of Concentration

- Project management
- Environmental, safety and health issues
- Heating, ventilation and air conditioning controls
- Improving the building envelope for the environment
- Changes in electrical power delivery

Choose from These Topics*

- Scheduling with the critical path method (CPM)
- OSHA general industry discussion
- Pump efficiency and reliability
- Building envelope and the environment
- DDC control strategies and specifications
- Compressed air systems and management

Rick Cook, Austin, Dillon,

Greensboro, NC

Raleigh, NC

Cook Engineering, Hanahan, SC

Steve Dixon, Energy Manager, Highwoods Properties, Raleigh, NC

Roger Lawrence, P.E., CEM, LFIEEE,

Independent Consultant and Sole Proprietor,

The impact of distributed generation

Jamie Edmondson, James M. Pleasants Co. Inc.,

Facilities Engineering Management (FEM) 3

June 3-7, 2024

Areas of Concentration

- Maintenance management techniques
- Improving maintenance functions
- Engineering issues in facilities management
- A guide to building automation systems
- Trends in renewable energy generation
- HVAC maintenance
- Building commissioning

Choose from These Topics*

- Working with contractors: design and build contracts
- OSHA 10-hour construction certification
- Fundamentals of commercial and industrial roofing
- Guide to building automation
- Energy-efficient motors and VFDs
- HVAC maintenance techniques for facilities managers
- Trends in renewable generation
- The existing building commissioning process

Facilities Engineering Management (FEM) 1

August 19-23, 2024

Areas of Concentration

- Approaches to facility management
- How to achieve quality in plant commissioning and operation
- Facility process energy efficiency and sustainability
- Chillers and cooling systems
- Electrical systems

Choose from These Topics*

- Plant renovation: contract terms and conditions
- Alternate dispute resolution: ways to stay out of court
- HVAC operation and efficiency
- Hydronic systems
- Power-quality solutions
- Chillers and cooling towers
- Process-energy analysis
- T&B building commissioning
 - * The content of sessions may be occasionally adjusted in order to meet interests and needs.

Program Advisors

Paul McCain, P.E., McCain Special Project Services, Raleigh, NC

Bill McMullen, Vice President/ Mid-Atlantic Regional Manager, EMC Engineers Inc., Raleigh, NC

David Miller, CEM, BEP, Energy Manager, City of Charlotte, Charlotte, NC

James J. Parker, P.E., CEM, CMVP, Staff Application Engineer, Schneider Electric Energy Solutions, Raleigh, NC John Rees, Retired-Energy Extension Specialist, Mechanical and Aerospace Engineering, NC State University, Raleigh, NC

Rob Shaw, Energy Outsource Group

Bill Turpish, P.E., PEM, CEM W.J. Turpish and Associates, Shelby, NC

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design training for your employees' needs.