NC STATE UNIVERSITY

- Credential Your Career with Non-Degree University Diploma Status!
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- Three One-Week Programs Leading to a Diploma in Facilities Engineering Management
- Learn Facilities Management From a Team of Experienced Professionals
- Only Program of Its Kind in the United States
- Can Be Completed in One Year

New students enroll now! Take these three sessions in any sequence you like.

FEM I: December 5–9, 2011

FEM II: March 5–9, 2012

FEM III: June 11–15, 2012



North Carolina State University, Raleigh, NC

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THE PROFESSIONAL DIPLOMA PROGRAM Facilities Engineering Management

Chosen by industry, commerce, local and federal government employees to gain hands-on, practical, successful facilities management education taught by experienced facilities professionals. Improve Energy Efficiency Reduce Maintenance and Operational Costs



What Past Participants Have to Say About This Program

"The Facility Engineering Management Program is an excellent source of knowledge, resources, and information. The instructors combine years of field experience with textbook policies and procedures. It is unique and relevant to today's FEM professionals."

— Corey Hill, U.S. Army, Fort Bragg, NC

"The knowledge and information I have been taught is invaluable in dealing with shrinking facilities maintenance staff and budgets."

> — Sean Dugan, Facilities Maintenance Officer, MCAS Cherry Point, Swansboro, NC

"A lot of great information is packed into this program. Anyone taking these courses would benefit from the information gained."

— Michael Conmy, Facility Contract Coordinator, URS Energy and Construction, Inc., Richmond

"The training received in the FEM courses would take years to receive with on-job training. Ideas and techniques from the FEM classes have already proved to be useful and cost effective."

> — Jason Neuman, Facilities Administrator, Bonset America, Brown Summit, NC

THE PROFESSIONAL DIPLOMA PROGRAM

Facilities Engineering Management

NEW STUDENTS ENROLL NOW!

Take the three sessions in any sequence you like.



Recent Facilities Engineering Management Diploma students in a class photo with Program Director Roger Lawrence (front row, far right).

About The Diploma Program

The NC State University Facilities Engineering Management Diploma will provide you with an excellent means of credentialing and will demonstrate that you have been exposed to and have gained a grasp of essential skills and knowledge. Earning the diploma represents solid evidence of your successful completion of the course requirements and illustrates your dedication to becoming more knowledgeable in your field and valuable to your organization.

Why You Should Attend

Today's facilities are complex, dynamic, and high tech, requiring them to be maintained in a manner that maximizes their full potential while minimizing operational costs. Welltrained, professional facility maintenance management personnel are needed to accomplish this.

Attend and You'll

- Set yourself above your peers, leading to advancements in position and earnings.
- Earn a diploma from a distinguished university.
- Join a select group of personnel in the facilities engineering field.
- Prove your knowledge and competence in your field.
- Enhance your knowledge of the facilities engineering management field.
- Gain exposure to current and emerging relevant aspects of facilities engineering.
- Provide the credential to your employer or prospective employer demonstrating that you have the in-depth knowledge to be a manager in a facility's engineering department.

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

What Makes This Program Unique

North Carolina State University has established this non-credit diploma series to give you, the facility maintenance management professional, the knowledge and skills you need to help your facility reach its goals. You'll receive the Facilities Engineering Management 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.

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

REGISTER TODAY! On-line at **ContinuingEducation.ncsu.edu**, Call 919.515.2261, or Fax your registration form to 919.515.7614

Facilities Engineering Management (FEM) I

December 5–9, 2011

Areas of Concentration

- Facility Management Issues
- Energy Efficiencies
- Quality in Plant Engineering
- Construction and Building Systems
- Facility Energy Efficiency and Sustainability

Attend and You Will Learn*

- HVAC Operations and Efficiencies
- Hydronic Systems
- Power Quality Solutions
- Contract Terms and Conditions
- Alternate Dispute Resolution
- Chillers and Cooling Towers
- Process Energy Analysis
- Building Envelope Analysis
- T&B Building Commissioning

* **NOTE:** The content of sessions may be occasionally adjusted in order to meet interests and needs.

Facilities Engineering Management (FEM) II

March 5–9, 2012

Areas of Concentration

- Project Management
- Heating, Ventilation, and Air Conditioning
- Environmental, Safety, and Health Issues
- Controls
- Compressed Air Systems
- The Existing Building Commissioning

Attend and You Will Learn*

- Scheduling with the Critical Path Method (CPM)
- Effective Planning and Scheduling
- Energy and Environmental Regulations
- HVAC Control Strategies
- Distributed Generation
- OSHA General Industry 10-Hour Certification
- Boilers and Steam Systems
- DDC Controls

Facilities Engineering Management (FEM) III

June 11–15, 2012

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

Attend and You Will Learn*

- Working with Contractors and Design/Build Contracts
- OSHA 10-Hour Construction Certification
- Fundamentals of Commercial and Industrial Roofing
- Electrical Schematics and Diagrams
- Pumping Systems Design
- Energy-Efficient Motors and Drives
- Management Skills for Facilities Managers

Sessions do not have to be taken in a particular sequence, however the FEM Diploma program must be completed within three years from the date of the first class.

Program Advisors

Rick Cook, Austin, Dillon, Cook Engineering, Hanahan, SC

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

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

Walter Johnston, PE, CPE, Director Emeritus of the FEM Diploma Program, 1998 International Energy Engineer of the Year, and past President of the Association of Energy Engineers **Roger Lawrence,** PE, CEM, FIEEE, Independent Consultant and Sole Proprietor

Paul McCain, 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, PE, CEM, CMVP, Staff Application Engineer, Schneider Electric Energy Solutions, Raleigh, NC

John Rees, Energy Extension Specialist, Mechanical and Aerospace Engineering, NC State University, Raleigh, NC

Rob Shaw, National Gas Distributors LLC

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

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Depending on your Internet service provider and/or your personal email settings...

emails from NC State University in regard to this registration process may be considered unsolicited and not be delivered to your in-box. If you do not receive an email confirmation from NC State University, please check your "spam" file if you have one, or you may contact us at **919.515.2261** with any questions about your registration status.

For more information, you can also visit our website at **ContinuingEducation.ncsu.edu** or call **919.515.2261**.

Schedule and Location

Check-in is held from 8:00 to 8:30 a.m. with class from 8:30 a.m. to 5:00 p.m. Monday through Thursday, and from 8:00 a.m. to noon on Friday.

All sessions take place in the McKimmon Conference & Training Center, conveniently located on the NC State University campus at the corner of Western Boulevard and Gorman Street in Raleigh, NC. Driving to the McKimmon Center is easy and public parking is plentiful.

Following your enrollment, you will receive a confirmation letter by e-mail with detailed instructions, a receipt or invoice, and a map of the Raleigh area.

Where to Stay

Lodging and evening meals are not included in your registration fee.

Sleeping accommodations are available at several hotels convenient to the McKimmon Center, but please note that these hotels are not within walking distance.

For lodging information, please visit our website at

ContinuingEducation.ncsu.edu or call 919.515.2261.

Credits You Can Earn

Individuals satisfactorily completing each course will be eligible for 3.2 CEUs and 32 PDHs. For more information, please visit our website at:

ContinuingEducation.ncsu.edu or call 919.515.2261.

Your Guarantee of Satisfaction

We realize how valuable your time and money are and that you and your organization expect to get a return on your investment. We promise that you will be completely satisfied with your learning experience or we will refund your entire registration fee.

Your registration fee includes...

- Tuition for all classes, lectures, and demonstrations
- A comprehensive reference notebook you can use every day on the job
- A tote bag to carry your class materials
- 4 networking luncheons and refreshment breaks
- A Certificate of Completion
- 3.2 CEUs/32 PDHs

BRING THESE TOPICS ON-SITE

Take advantage of the opportunity to have topics from these courses presented at the location of your choice.

Benefits Include

- Custom-tailored instruction
- Convenience
- Substantial savings over public prices

Contact Andy Billingsley at 919.513.5080 or Andrew_Billingsley@ncsu.edu for more information.



Marvin Phillips (left), Facilities Operations Specialist with 406th Army Field Support Brigade, receives his diploma from Program Director, Roger Lawrence (right).

"I think the FEM Program is very informative and provides a vast degree of professional development... Experiences gained through the FEM Program significantly enhanced my overall knowledge and approaches to facilities management."

— Marvin Phillips, Facilities Operations Specialist, 406th Army Field Support Brigade, Fayetteville, NC

If you are a person with a disability ...

and desire any assistive devices, services or other accommodations to participate in these courses, please call **919.515.2261** during business hours (8 a.m. to 5 p.m. Eastern) or email **ContinuingEducation@ncsu.edu** to discuss accommodations at least two weeks in advance.

REGISTER TODAY! On-line at ContinuingEducation.ncsu.edu, Call 919.515.2261, or Fax your registration form to 919.515.7614

REGISTRATION INFORMATION

Facilities Engineering Management (FEM) Diploma

McKimmon Conference & Training Center • NC State University • Raleigh, NC

Check course(s) you will be attending:

FEM I	December 5–9, 2011	\$1,995/\$1,795*	OPD-ZFFEM1-C
FEM II	March 5–9, 2012	\$1,995/\$1,795*	OPD-ZFFEM2-C
FEM III	June 11–15, 2012	\$1,995/\$1,795*	OPD-ZFFEM3-C

* **NEW TEAM DISCOUNT!** \$1,795 for each additional registration from the same organization and for government employees. ID may be required if you are registering as a government employee.

SAVE \$\$\$!! Pre-register and pay for all three sessions for just \$1,695 per session!

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First Name	Middle Initial	Last Name	Date of Birth (mm/dd)*
Title			
Badge Name			
Organization			
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Telephone		Fax	
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* In lieu of SSN, your date of birth is required as a personal identifier for internal record keeping by this university.

How to Enroll

On-line...

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919.515.2261

FAX	

Fax... Your registration to: **919.515.7614**



Your registration to: Registration Coordinator Office of Professional Development North Carolina State University Box 7401•Raleigh, NC 27695



ContinuingEducation@ncsu.edu

Method of Payment

Payer: 🗆 Company 🕒 Self

 Payment must accompany registration and must be received by the first day of the program.

 The easiest way to guarantee your place is to pay with a credit card.

 Please charge my credit card

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 Yes

 No

Account # (Please list all numbers)

Exp. Date_____

Amount Charged \$ _____

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Cardholder's Signature (required) (Seal)

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 (Pavable to NC State University)

Write the name(s) of the participant(s) on face of the check(s).

□ If you wish to pay by purchase order, please submit your purchase order and this registration form by mail or fax them to **919.515.7614.**\

□ IDT (*NC* State University employees only)

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Project (FAS) # _____

OTHER DIPLOMA PROGRAMS ALSO AVAILABLE TO YOU!

Energy Management (EM) Diploma

Why This Program Is Unique

The Energy Management

Diploma will provide you with an excellent means of credentialing and will demonstrate that you have been exposed to and have gained a grasp of essential skills and knowledge. While not a degree or a specific certification of your qualifications, earning the diploma represents solid evidence of your successful completion of the course requirements and illustrates your dedication to becoming more knowledgeable of your field and valuable to your organization.

Maintenance & Reliability Management (MRM) Diploma

Why This Program Is Unique

NC State University, in partnership with Marshall Institute, offers you a three-week diploma program that will develop your maintenance and reliability knowledge and sharpen your leadership skills for today's increasingly competitive global marketplace. This program will expose you to realworld examples and will provide you with practical knowledge and skills applicable in your plant or facility.

- Three one-week programs leading to a diploma in energy management.
- Learn energy management from a team of professionals.
- Only program of its kind in the United States.
- Can be completed in less than one year.

Why You Should Attend

- Enhance your knowledge of the energy management field.
- Prove your knowledge and competence in your field.
- Set yourself above your peers leading to advancements in position and earnings.
- Earn a diploma from a distinguished university.
- Taught in a university environment dedicated to the continuing development of working professionals.
- Delivered by experienced maintenance and reliability professionals from Marshall Institute.
- Flexible course designed for the working professional.

Why You Should Attend

Today's modern process and manufacturing industries are complex and asset intensive, requiring them to be maintained in a manner that maximizes uptime while minimizing operational costs. In addition, plants and facilities must be maintained so

- Join a select group of personnel in the energy field.
- Gain exposure to current and emerging relevant aspects of energy management.
- Provide the credential to your employer or prospective employer that you have the in-depth knowledge to be a manager in energy management.

Upcoming Sessions:

- EM III: Industrial and Commercial Energy, Process and Building Analysis November 7–11, 2011
- EM I: Managing Energy for Greater Profitability January 9–13, 2012
- EM II: Improving Equipment Efficiencies May 14-18, 2012

that process safety and asset integrity are not compromised. Well trained maintenance and reliability professionals are needed to accomplish these objectives.

Upcoming Sessions:

MRM II: Work Flow and Materials Management

September 19-23, 2011

MRM III: Risk and Reliability Management

January 23–27, 2012

MRM I: Strategic Leadership, Planning and Control

April 23-27, 2012

November 9, 2011

MARK YOUR CALENDAR!

- Microsoft Project 2007 Level 1
- How to Communicate, Influence, and Negotiate in Project Management
- Microsoft Project 2010 Level 1
- AutoCAD Level 2
- Microsoft Project 2007 Level 1
- Making Meetings Productive
- How to Be a Highly Effective Project Manager
- Team-Based Project Management
- AutoCAD Level 3

- September 14, 2011
- September 19-21, 2011 October 13, 2011 October 13-14, 2011 October 19, 2011 October 24-25, 2011 October 26-28, 2011 November 7-9, 2011 November 8-9, 2011
- Microsoft Project 2007 Level 2
 AutoCAD Level 1
 - eXtreme Project Management
 - Autodesk Revit
 - Microsoft Project 2010 Level 2
 - SharePoint for Project Management
 - Project Management: Tools, Principles, and Practices
 - Microsoft Project 2007 Level 1
 - AutoCAD 3D

- November 10-11, 2011 November 14-16, 2011 November 17-18, 2011 November 18, 2011 December 1-2, 2011
- December 15, 2011 December 15-16, 2011

For more information or to register for any of these programs, visit our website at ContinuingEducation.ncsu.edu, e-mail ContinuingEducation@ncsu.edu or call 919.515.2261

REGISTRATION INFORMATION

Energy Management (EM) Diploma

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🗆 EM III	November 7–11, 2011	\$1,995/\$1,795*	OPD-ZNEM3-C
🗆 EM I	January 9–13, 2012	\$1,995/\$1,795*	OPD-ZNEM1-C
🗆 EM II	May 14–18, 2012	\$1,995/\$1,795*	OPD-ZNEM2-C

Maintenance & Reliability Management (MRM) Diploma

McKimmon Conference & Training Center • NC State University • Raleigh, NC Check course(s) you will be attending:

🗌 MRM II September 19–23, 2011	\$1,995/\$1,795*	MMRMDF12/MRM2F12
🗌 MRM III January 23–27, 2012	\$1,995/\$1,795*	OPD-ZFMRM3-C
🗌 MRM I 🛛 April 23–27, 2012	\$1,995/\$1,795*	OPD-ZFMRM1-C

*Reduced Fees for each additional registration from the same organization and for government employees.

SAVE \$\$\$!! Pre-register and pay for all three sessions! Call 919.515.2261 for details.

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ContinuingEducation.ncsu.edu ContinuingEducation.ncsu.edu Call 919.515.2261 Fax Your registration to: 919.515.7614	 Mail Your registration to: Registration Coordinator Office of Professional Development NC State University Box 7401•Raleigh, NC 27695 For More Information Email ContinuingEducation@ncsu.edu 	□ IDT (NC State University employees of OUC # Project (FAS) #

Method of Payment

Payer: Company Self

Payment must accompany registration and must be received by the first day of the program. The easiest way to guarantee your place is to pay with a credit card.

Please charge n	ny credit card
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🖵 American H	Express
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UVISA

□ MasterCard

Diners Club

Corporate Card **Yes** D No

(Please list all numbers) Account #

Exp. Date_

Amount Charged \$ _

Cardholder's Name (please print)

Cardholder's Signature (required) (Seal)

□ Check Enclosed (U.S. banks only) (Do not fax) (Payable to NC State University)

Write the name(s) of the participant(s) on face of the check(s).

□ If you wish to pay by purchase order, please submit your purchase order and this registration form by mail or fax

□ IDT (NC State University employees only)
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ACHIEVE A SUSTAINABLE FUTURE USING THE LATEST TECHNOLOGIES TO IMPROVE FACILITY EFFICIENCIES AND CUT OPERATIONAL COSTS

Facilities Engineering Management "A must-atte engineers

The unique diploma program providing you with hands-on, practical, successful facilities management education taught by experienced facilities professionals.

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FEM III: June 11–15, 2012

If you receive more than one brochure, please pass the extra along to an associate. If addressee is no longer employed, please forward to his/her replacement. Call 919.515.2261 to update your record.

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- 🖊 Can Be Completed in One Year

Taking place at



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 December 5–9, 2011

 FEM II:
 March 5–9, 2012

 FEM III:
 June 11–15, 2012

"A must-attend for all facilities engineers in the field." —Juan Jimenez, NAVFAC SE

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ALSO INSIDE!

Information about the upcoming diploma programs: Energy Management and Maintenance & Reliability Management

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