

# Energy Management CERTIFICATION

2015  
**July 13<sup>th</sup>**  
TO **July 24<sup>th</sup>**



"After applying my project from the Energy Management Certification program my company now saves approximately \$110,000 per year - an incredible savings!"



Energy Efficiency Training  
Guaranteed Return On Your Investment\*

**Excellent Instruction & Consultation**


**EMC**  
Energy Management Certification

Check out this  
all-inclusive  
program!



# You Can't Afford *To Miss* This Course!

Energy Management Certification (EMC) from NWEEL can significantly enhance your energy management credentials — and your value in the marketplace.



The EMC is designed to teach a broad spectrum of energy management principles and techniques. Utilizing industry experts as instructors and guest speakers not only guarantees a high-quality curriculum but one based upon actual field experience. Each expert presenter covers their specialty topic, such as building energy use, glazing, insulation, building envelope, heating/cooling, secondary HVAC, controls, central plant equipment, energy auditing, conservation, and maintenance.

### **The Result?**

Students develop the skills to evaluate and prioritize all energy-related projects based on energy cost savings and return-on-investment.

\* NWEEL's guarantee for a return on your training investment is contingent upon the participant's successful completion of the required energy efficiency project.

## Reasons to Attend

- Build experience quickly.
- Broaden your knowledge base in energy management.
- Accept greater job responsibility.
- Stay abreast of the most current information.
- Enjoy recognition within your field.
- Earn higher pay with certification.
- Meet notable experts in energy management.



EMC is the only certification program that requires each student to implement an efficiency project, resulting in immediate hands-on experience for the student, and rapid energy savings for the student, employer or client.

### Implement What You Learn

Our goal is to provide measurable results for both individuals and organizations. In the final phase of the certification program, students must demonstrate their understanding of energy efficiency principles and practices through the actual implementation of an energy efficiency project of their choosing. With guidance and support (including an equipment library) each student selects a project based on maximum return-on-investment and/or energy savings.

## Who Attends?

- » Engineers
- » Technicians
- » Architects
- » Facility, Maintenance & Energy Managers



## ADVANCED CERTIFICATION FOR Energy Pros

Energy Management Certification (EMC) from NWEEL is an advanced certification program for energy managers and professionals.

The certificate emphasizes hands-on experience while students learn from experts.



## Learn from Leaders

EMC is more than classroom instruction — It is an opportunity to learn from a diverse team of expert energy efficiency practitioners, building systems specialists, and industry leaders in a close-knit environment.

This wide array of disciplines gives you a versatile energy efficiency knowledge base which can be used to make wiser energy decisions and formulate new innovative efficiency solutions.



The Northwest Water and Energy Education Institute (NWEEI) offers learning opportunities for practicing professionals in the water and energy industries. Customized training is offered for professionals around the Northwest, Nationally and Internationally.





## The course runs **July 13<sup>th</sup> - July 24<sup>th</sup> 2015**

Students begin gathering data for class one month prior to this date; therefore, we encourage **registration by July 1, 2015.**

### Where?

Participants stay in-residence at the Downtown Campus in Eugene, Oregon for the on-site portion of the program.

### What's Included?

- » 4-part certification program
- » Extensive reference materials
- » Energy Efficient Commercial Building Operation by Peter Herzog
- » Institute staff support throughout the program year
- » Room and board during the 2-week workshop
- » Framed certificate of completion from NWEEI

### Cost

The cost of the EMC course is **\$4,500 and includes room and board** during the 2-weeks at Lane Community College. Graduates of the program have reported substantial energy savings from EMC projects, resulting in a payback on their educational investment of two years or less.

### Registration

Register for the EMC course via our convenient 1-page online registration form.

### Payment



Credit Cards, Checks & Purchase orders.  
Please make checks out to  
**Lane Community College.**

online  
**nweei.org/register-today**  
phone  
**541-463-6160**

### Cancellation Policy

Cancellations 2 months prior to start of the workshop will be issued a full refund less \$200 handling fee; less than 2 months a 50% forfeit fee. Participant substitutions are allowed. NWEEI reserves the right to cancel up to 2-weeks prior to start of workshop if a minimum number of registrations is not met.

***"EMC is the fastest way to learn all about energy management. The instructors taught me comprehensive, real-world techniques that I immediately applied at work, and the payback for my employer will be less than two years."***

- Andy Rhodes, Operations Manager | Thomas Properties Group



EMC consists of four parts: pre-workshop prep, classroom instruction, workplace project, and presentation of results.

### **Pre-Workshop Prep | June 13-July 13, 2015**

The pre-course assignment is designed to make sure all students are beginning the workshop from the same fundamental knowledge base. The assignment requires students to review an actual energy audit report and find intentionally placed errors. The purpose is to familiarize students with a formal audit reporting style, calculations used in energy analysis, and typical energy measures.



### **In-residence Workshop | July 13-July 24, 2015**

During the classroom portion of EMC, students are immersed in energy efficiency fundamentals and practices. The intensity of this portion of the program demands that students work extended hours, including two evenings and one Saturday, July 12th. The curriculum consists of:

- » Day 1 - Introductions & Overview
- » Day 2 - Energy Systems Overview
- » Day 3 - Lighting
- » Day 4 - Electrical Fundamentals
- » Day 5 - Glazing, Insulation & Envelope
- » Day 6 - Heating & Cooling Fundamentals
- » Day 7 - Secondary HVAC Systems
- » Day 8 - Plant Equipment
- » Day 9 - Controls Fundamentals
- » Day 10 - Energy Auditing I
- » Day 11 - Energy Auditing II

### **Workplace Project | August 2015 to July 2016**

Students return to their place of employment where, based upon information obtained during the workshop, they design an energy efficiency project that meets their organization's energy efficiency goals. Following successful implementation of an approved project students gather quantifiable data on their projects in order to measure and verify savings.



### **Certification | Summer 2016+**

At the end of the project year, students are encouraged to formally share project results with the next EMC class. Each student must demonstrate energy management skills by showing a return-on-investment (ROI) in energy costs before we award a certificate of completion.





## LANE COMMUNITY COLLEGE DOWNTOWN CAMPUS — welcome to our state-of-the-art lab

Built to LEED Standards (Residential - LEED Gold | Academic - LEED Platinum) it boasts energy-saving and sustainable features that are state of the art. The diversity of mechanical systems located within the building and buildings nearby makes it the perfect “lab” for the EMC.

### Features Include:

- » Passive Ventilation
- » Geothermal Ground wells
- » Green Roof
- » Extensive Building Controls
- » Natural Daylighting
- » Rainwater Reuse
- » High-Performance Envelope
- » Lighting Lab
- » Solar PV & Solar Thermal
- » Multiple Mechanical System Types

It's not uncommon for our instructors to take the class on short walking tours to point out real life examples of concepts from their presentations. During the energy-auditing portion of the course the building and its systems will be used for hands-on field work as students learn to configure and deploy energy monitoring equipment and analyze the results.



Sign up Today. It's Easy! Go online and click “Register Today”

# NWEEI.ORG/EMC

Class size is ideal for personalized interaction and limited in size



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CERTIFICATION

2015

July 13<sup>th</sup>  
TO July 24<sup>th</sup>

Northwest Water & Energy Education Institute  
Lane Community College - Downtown Campus  
101 W 10th Ave, 4th Floor  
Eugene, Oregon 97401

PRSRT STD  
US Postage Paid  
Eugene OR  
Permit No. 94

***Registration Deadline is July 1, 2015!***

Class size is ideal for personalized interaction and limited in size.

**Sign up Today. It's Easy!**  
**nweei.org/emc**

**Guaranteed Return On Your Investment\***