

Course Syllabus

RESNET HERS Rater Online Training

Open Enrollment



INFINITE EXPERTISE.

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PART 1: COURSE INFORMATION

Instructors

Instructors: Scott Doyle, Glenn Pease, Matt Thornberry, and other instructors as necessary

Office: Online Course, EnergyLogic Academy

Technical Support Questions: matt.thornberry@nrglogic.com, info@nrglogic.com

- **NOTE:** Our technical support staff are only available 9:00am – 5:00pm Mountain Standard Time, Monday – Friday. If an urgent issue arises over the weekend, they will do their best to respond, but they may very likely not be available to assist until Monday morning.

Material Questions: scott@nrglogic.com

Course Description


The online portion of HERS Rater training covers the core knowledge for the HERS Rater certification. By enrolling in our self-paced, open enrollment course, you will have 90 days to complete the training. You can complete the training at your own pace, and you do not need to take the whole enrollment period if it is not needed. There are 24 modules in the course – each module will take a minimum of 2 hours to complete, with some taking over 4 hours.

RESNET HERS Rater Certification Process


Certification is ultimately provided to you by the HERS Provider you select. After completing the online course, you will need to take the field training (where you will complete the 2 RESNET-required practice ratings). Upon successful completion of the field training, you will need to pass the RESNET National Rater Written Exam, RESNET Combustion Safety Written Exam, and the RESNET Combustion Safety Practical Exam. Upon successful completion of the exams you will select an accredited HERS Provider. After joining a Provider, you will enter a probationary phase during which you are required to complete a minimum of 3 probationary ratings. These ratings are submitted to the Provider's quality assurance (QA) designee for thorough review. Once the ratings are completed to the satisfaction of the QA designee, you will have successfully earned the RESNET HERS Rater certification.

Textbook and Course Materials

All students taking this course are **required** to have the following textbook:

 Residential Energy -- John Krigger & Chris Dorsi, Saturn Resource Management

It is also strongly recommended that you purchase the following guide:

 Energy Auditor Field Guide -- John Krigger & Chris Dorsi, Saturn Resource Management

Course Delivery

EnergyLogic Academy online trainings provide learning experiences that are more interactive and better tailored to the needs of individual students than is possible in traditional classrooms. Our students find that the opportunities to “learn by doing,” to learn at their own pace, and to develop lively discussions with other students and their teachers create a solid learning environment that is both engaging and flexible.

The EnergyLogic Academy learning management system is an asynchronous environment, which means “not at the same time,” that allows the learner to complete EnergyLogic courses on his/her own time and schedule. A student in this environment typically learns without live interaction with the instructor. Students communicate with each other and the instructor through discussions (known as forums), chat rooms, and email. A dynamic and supportive community will develop as we work through the course material.

Course Requirements

To access the online course, you will need the following:

- 🎧 Internet Access. Broadband or high-speed internet access is strongly recommended. Broadband includes DSL, cable, and wireless connections.
 - Dial-up Internet connections will result in a diminished experience where Moodle pages may load slowly.
- 🎧 Email Account. If you change email addresses after you set up a Moodle account, be sure to update your new email address in your account profile.
- 🎧 Login Credentials for our LMS (username and password)
- 🎧 Good Headphones. We recommend these for listening to the narrated audio resources.

Important Course Note for Mac/Apple Users

If you will be using a Mac/Apple device for this course, please be aware that the REM/Rate and SketchUp components of this course will not work on the Mac/Apple operating system. The one exception to this is if you have a windows emulator. It is strongly recommended that you have access to a PC for these modules.

Browser and Hardware Configuration

Browser: We recommend using Firefox, Safari, or Chrome for your browser. **IMPORTANT:** Internet Explorer 9 blocks some of the functionality in the course and will cause quite a bit of frustration, errors, and the inability to access key components of the course. If you prefer IE, you can take a look at the following link to check into configuring your browser to work with our learning management system – however, please be aware that this may not address all the issues that our students and staff have reported when using IE: <http://windows.microsoft.com/en-US/windows7/why-do-some-webpages-look-incorrect-in-internet-explorer-9>

Java and Adobe Flash Requirements: You will need the Java plug-in and Adobe Flash V8.0 or higher in order to complete lessons, take tests, and run the streaming visual presentations.

- 🎧 Java: <http://www.java.com/en/download/index.jsp>
- 🎧 Adobe Flash Player: <http://www.adobe.com/support/flashplayer/downloads.html>

Pop-Up Windows: Moodle uses pop-up windows, so you will need to disable pop-up blockers in your browser and any other pop-up blockers (such as those which may be provided through your Internet service provider, your anti-virus software, and or your search bar in your browser such as Google).

- 🎧 Internet Explorer's Built-In Popup Blocker: <http://windows.microsoft.com/en-US/Windows7/Internet-Explorer-Pop-up-Blocker-frequently-asked-questions>
- 🎧 Firefox: <http://support.mozilla.org/en-US/kb/Pop-up%20blocker>
- 🎧 Google Chrome: <http://support.google.com/chrome/bin/answer.py?hl=en&answer=95472>

Course Structure

This course will be delivered entirely online through the EnergyLogic Academy's online learning management system.

The course is divided into sections called modules. These modules are integrative, so each one is built off knowledge gained from the previous one. Please complete module 1 before module 2, and module 2 before 3, and so on. Each module will consist of some combination of learning resources, activities, discussion forums, and quizzes. While you can work through the course at your own pace, you will need to work through the activities in order. Given this, you will only be allowed to start an activity if the previous one has been completed.







PART 2: COURSE OUTCOMES

The first phase of Rater Training is designed to prepare students for field training. It will provide a comprehensive overview of the field of building science, and you will be exposed to the breadth and depth of building science and its many applications to the everyday world of energy raters and ratings. The introduction will segue into more detailed examinations of the basic building blocks of building science.

Learning Outcomes

1. To build an understanding of HERS Ratings, Standards, and industry structure
2. To develop a toolkit for understanding building science and energy in the home
3. To introduce knowledge of the thermal enclosure system of the home
4. To build a foundational knowledge of the mechanical systems in the home
5. To introduce diagnostic testing processes and equipment
6. To develop familiarity with computer modeling

























You will meet the objectives listed above by completing the following activities in this course:

-  Complete each module, and all items within each module
-  Participate in the social interactions in the course
-  Assume a leadership role when necessary; help other students when you have knowledge they don't
-  Manage your time in the course
-  Approach the course with a desire to learn
-  Successfully complete the class project

PART 3: TOPIC OUTLINE

This course has 24 modules which can be completed at your own pace. Each module will require a minimum of 2 hours to complete, while some of the modules may take longer.

Module Outline

- | | |
|---|--|
|  Module 1 – Welcome |  Module 13 – Insulation |
|  Module 2 – RESNET Standards |  Module 14 – Windows, Doors, & Skylights |
|  Module 3 – Thermodynamics |  Module 15 – Air & Vapor Barriers |
|  Module 4 – Air Flow |  Module 16 – Heating |
|  Module 5 – Moisture |  Module 17 – Cooling |
|  Module 6 – Systems Thinking |  Module 18 – Water Heating |
|  Module 7 – Analyzing Consumption |  Module 19 – Blower Door |
|  Module 8 – Intro to Plans |  Module 20 – Duct Blaster |
|  Module 9 – Plan Takeoffs |  Module 21 – Thermography |
|  Module 10 – REM/Rate Intro |  Module 22 – Pressure Diagnostics |
|  Module 11 – Lighting & Appliances |  Module 23 – RESNET Combustion Safety Testing |
|  Module 12 – Framing |  Module 24 – Practice Exam |





Time Commitment

E-learning provides a convenient approach to training. You can complete the modules at any point during the day. This allows a self-paced environment in which to meet the obligations of the course. However, it is important to understand that this does not mean the course does not require a large commitment from you. We expect each module to take between 2 to 4 hours to complete. With 24 modules, you should expect to spend between 48 and 96 hours in the course. You can get through the material as quickly or as slowly as you would like – but please make sure to budget your time appropriately to ensure completion before your access in the course expires.

PART 4: GRADING POLICY

Your overall score is the culmination of your scores for each module, which are a combination of scores for each section (the modules will be broken down further below). A total course score of 80% or greater is expected to receive a passing grade. Between 80% and 89% is acceptable, but indicates modules in the course where you need to do some more work. Students scoring lower than 80% on a module are expected to return to that module and improve the score before it closes. A score of 90% or greater shows a good understanding of the material.

Each module has a total point value of 100 points, with those points coming from some combination of the following components:

-  Learning Resources
-  Activity
-  Social
-  Evaluation

Information on the module sections are included below.




Learning Resources

Each module will have a section of learning resources. These are presentations and documents designed to teach you about the module topic.

The LMS will report your activity based on the percentage of slides viewed. You are required to view all learning resources to receive credit for this section. Please make sure to complete 100% of the learning resources to receive credit, which includes listening to the last slide. Some slides are interactive with hyperlinks, mouse-over graphics, and pop quizzes – so you should plan to be fully engaged with these learning resources. Multi-tasking is strongly discouraged when going through these resources.


Activities

Most modules will have an activity section. Typical activities include web research, reviewing case studies, inspecting your residence, among others. There will be clear instructions on each module outlining what needs to be done to complete the activity. Your activity will be scored according to the following:

-  Complete = 25 Points
-  Satisfactory = 20 Points
-  Partially Complete = 5 Points

Socials

A cornerstone of successful online learning is establishing the social component that exists with live training. We do this by adding a forum to each module where students discuss the topic covered. You will receive the total 25 points by doing both of the following:

-  Create a New Discussion in the Module Forum = 15 Points
-  Respond to a Colleague's Post = 10 Points

Evaluations

Each module will have a quiz associated with the topic. Each quiz needs to be passed with an 80% or higher grade. Quizzes can be taken as many times as needed.

Class Project

Throughout the course you will work on a class project. The class project is a culmination of the activities throughout the training. You will upload or send in your project, and it will be graded by our instructors. You can expect to receive feedback and a grade on the project (and ultimately in the course) about a week after you submit your project for review.

Progress Reports

EnergyLogic will provide you with a progress report each Wednesday. This will give you your score for the modules that you have completed up to that point.

PART 5: COURSE POLICIES

Each student is an important member of our class community and has a responsibility to support and contribute to the course's learning community. This responsibility is to yourself, your instructor(s), as well as your classmates. These policies are established to ensure that all students have a clear understanding of the expectations the instructor has regarding conduct in this course.




EnergyLogic respects the students who attend our training to help us create a more sustainably built environment. The intent of these policies is to have an enforceable position. In truth, we hope that we will never have to enforce the policies outlined in this section. Your professionalism will go a long way toward ensuring this.

If for any reason you need to report a violation of course policies, please feel free to send a private email message to one of the instructors. This will be confidential and your instructor will find a solution that helps resolve any problems.






Student Code of Conduct

Please become familiar with the specifics of the course code of conduct, listed below. Students who intentionally abuse the system will be removed from the course without refund.

Student Interaction:

-  Treat all other students, instructors, and guests with dignity and respect.
-  Abusive or offensive language will not be tolerated. Those who submit language deemed inappropriate, threatening, or offensive will be removed from the course with no refund.
-  Participate respectfully in team collaborations and team projects.

E-learning requires self-motivation and self-direction, so approach the course with the following behaviors:

-  Manage your time
-  Approach the course with a desire to learn
-  Assume a leadership role when necessary; help other students when you have knowledge they don't
-  Contribute to all forum discussions; this is the foundation of e-learning
-  Submit constructive suggestions for course improvements








Forum Discussion Policy

The forums located throughout your course are a critical part of your learning experience. We are approaching our e-learning courses from a social constructivism teaching style. This means that you will build knowledge of the subject together with your instructors and colleagues through discussion and activities.

Each module will have graded forum activities. To receive a course completion certificate, you will need to participate in each of the forums. Students are expected to submit a unique post to each forum **in addition to** responding to at least one of your classmate's posts. Hopefully you will respond to many more than one, and will make it a point to be

an integral part of the social component of this course. Your addition to a forum may be the key to understanding a topic for one of your classmates.

Forum Guidelines:




-  Forum questions will be posted by the instructor and there will be a deadline for the submission of your responses to receive credit.
-  Students are expected to focus on the module-specific materials. For other information or discussions, feel free to use the general discussion forum in the top course block.
-  Your instructor may schedule chat sessions where all participants must attend. This will be posted in the class schedule so you can put it on your calendar in advance.
-  Students will receive a grade on discussion postings. Points are earned based on the quality of responses and compliance with the required number of postings.
-  All students have a right to express their own opinions in discussions, and every other student must respect this right.
-  Posting abusive or insulting messages will not be tolerated. This activity will result in removal from the course without refund.
-  The highest level of professionalism is requested in this activity. Forums are the key to learning together.

Email Policy




The learning management system will email you new information on forum updates, class instructions, and general news. It is your responsibility to check your email daily for these messages. Email communication can be managed from your profile in the learning management system. We encourage you to receive all email updates during the course, but you can choose to remove yourself from certain updates to help you manage the flow of communication.

To manage the quantity of email an instructor will receive, we have set some guidelines regarding when to email your instructors. We encourage you to post your questions in the forum discussion area whenever possible. One of the foundations of e-learning is social interaction with the other students in your course; given this, asking specific questions about the topic being covered is better suited for the forum because it will help your classmates understand the material as well. In our experience, the students who ask questions and interact with other students are the most successful.

Your instructor will answer email about:

-  Questions arising from difficulty in understanding course content, if the forum discussions are not helping you understand the materials
-  Requests about graded assignments
-  Confidential issues appropriate for discussion within the instructor-student relationship

Your instructor will not answer email that:

-  Poses questions already answered in the course information sections of the site
-  Lacks a subject line clearly stating the purpose of the email
-  Raises an inappropriate subject

PART 6: SYLLABUS ACCEPTANCE

We hope that the information covered here will help ensure your success in this course and beyond. Now that you have read through the syllabus, you probably understand that student learning in the EnergyLogic Academy is anything but passive – your active participation and consistent effort will make this a successful learning experience for you as well as your fellow students (and future colleagues!). On the welcome block of your course will be a questionnaire asking you to accept this course syllabus. Once you have accepted this document, you will gain access to the first module on the day it opens.

Thank you for joining our HERS Rater Online Training! Upon completion of the course, you will become an

EnergyLogic Academy alum and will receive periodic offers on future courses. We look forward to seeing you at future trainings and helping you meet all of your professional development needs!