

Fond du Lac Tribal and Community College
COURSE OUTLINE FORM

Updated 9/23/14

Please return this form to the college vice president of academic affairs and the chairperson of the Academic Affairs and Standards Council (AASC)

1. Prepared by: _____

2. Date submitted: _____

3. Date approved: 04/17/09 Date revised 09/23/14

4. Department/discipline: Electric Utility Technicians

5. Department(s) endorsement(s): _____

(Signatures of the person(s) providing the endorsement are required.)

6. Course Title: Advanced Home Energy Auditing

Abbreviated course title (25 characters or less): _____

7. Course Designator: EUT 8. Course Level: 1XXX 9. 2010

10. Number of Credits: Lecture 2 Lab 1

11. Control Number (on site) 20 Control Number (online) _____

12. Catalog/Course description:

This course expands on the basic principles of the EUT 1055: Home Energy Systems and Auditing course. This course will look at returns on investments (ROI), the different types of remediation work, and the advanced heat loss calculators for Home Energy Rating Systems (H.E.R.S.) and Energy Star Ratings. The lab work will provide advanced building science testing, furnace testing, and zone pressure testing utilizing a building lab. (Prerequisite: EUT 1055 Home Energy Systems and Auditing).

13. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses

Prerequisite(s): EUT 1055 Home Energy Systems and Auditing

Co-requisite:

14. **Course Materials** (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).

Krigger, J. & Dorsi, C. Saturn Mechanical Systems Field Guide. Saturn Resource Management, Inc. ISBN 978-1-880120-15-6.

15. **Course Content** (Provide an outline of major topics covered in course)

1. Return on investments
2. Furnace flow and efficiencies
3. HERS (Home Energy Rating System) software familiarizations
4. Air sealing techniques
5. AC and Heatpumps

16. Learning Goals, Outcomes, and Assessment

At FDLTCC we have 4 Competencies Across the Curriculum (CAC) areas. They are as follows:

- A. Information Literacy (the ability to use print and/or non-print tools effectively for the discovery, acquisition, and evaluation of information)
- B. Ability to Communicate (the ability to listen, read, comprehend, and/or deliver information in a variety of formats.)
- C. Problem Solving (the ability to conceptualize, apply, analyze, synthesize, and/or evaluate information to formulate and solve problems.)
- D. Culture (knowledge of Anishinaabe traditions and culture, knowledge of one's own traditions and culture, knowledge of others' traditions and cultures, culture of work, culture of academic disciplines and/or respect for global diversity.)

Upon completion of this course the student shall:

- 1. Be knowledgeable in computer based auditing tools. (A, C)
- 2. Identify air leaks and proper methods of air sealing and insulating. (A, C)
- 3. Demonstrate the application of auditing methods and communication to the customer. (B, C)
- 4. Calculate Return on Investment (ROI). (A, C)
- 5. Create a final audit report. (C)

17. Minnesota Transfer Curriculum (MnTC): If this course fulfills an MnTC goal area, state the goal area and list the goals and outcomes below:

See www.mntransfer.org

Goal Area(s): _____

Goal and Outcomes: