COURSE SYLLABUS

Division: **Workforce Services**

Curricula in Which Course is Taught: Career Studies Certificate – Alternative Energy

Course Number & Title: **ENV 170-90 FUNDAMENTALS OF ENERGY TECHNOLOGY**

Credit Hours: **2**   Hours/Wk Lecture: **2**   Hours/Wk Lab: **1**   Lec/Lab Comb: **3**

I. Catalog Description:

An introductory course for students with little or no prior experience in the subject matter. Course will be delivered through approximately 60% lecture and reading and 40% hands-on experimentation. The course will utilize training equipment at RCATT. The student will learn to use thermal cameras and various home insulation products.

II. Relationship of the course to curricula objectives in which it is taught:

Gives the student an overview of the field of energy conservation and use and provides descriptions of job functions typical to home energy technicians.

III. Required background:

This course is intended for anyone with an interest in and desire to learn the subject matter. No prior knowledge of the subject matter is required.

IV. Course Content:

- Empowering you to get control of your energy consumption
- Understanding household energy use
- Analyzing household energy usage
- What to expect from an Energy Audit
- Who can perform an Energy Audit
- Homeowner conservation resources
- Basic weatherization practices
- Material selection
- Prioritizing lighting upgrades

- Indoor air quality
- Personal comfort
- Guidelines for window replacements
- Domestic hot water consumption
- Water conservation
- Cleaning dryer ducts
- What to consider before purchasing alternative energy products
- How these practices benefit Alternative Energies

V. LEARNER OUTCOMES: VI. EVALUATION:

The student will have a basic knowledge of home energy conservation and the ability to apply what they have learned	• Homework/class work • Quizzes • Tests • Final exam • Class Participation

The course supports the following objectives:

DCC Educational Objectives

1. Communication
2. Critical Thinking
3. Computational and Computer Skills
4. Understanding Culture and Society