RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

CEMT 290 Commercial Energy Management Technology
Cooperative Education

I. Basic Course Information

A. Course Number and Title: CEMT 290 - Commercial Energy Management Technology Cooperative Education

B. New or Modified Course: New

C. Date of Proposal: Spring 2017

D. Effective Term: Fall 2017

E. Sponsoring Department: Business and Public Service Department

F. Semester Credit Hours: 3

G. Weekly Contact Hours: Lecture: 0 hours
Work Site: 135 hours
Out of class student work per week: 2 hours

H. Prerequisites: CISY 119 Networking Essentials
CEMT 201 Energy Management & Auditing I
CEMT 202 Energy Management & Auditing II
CEMT 203 Building Automation I
CEMT 204 Building Automation II
CEMT 205 Building Commissioning and Retro Commissioning
or permission and placement by Program Coordinator

I. Laboratory Fees: None

J. Name and Telephone Number or E-Mail Address of Department Chair:
Anne Marie Anderson, AnneMarie.Anderson@raritanval.edu

II. Catalog Description

Prerequisites: CISY 119 Networking Essentials; CEMT 201 Energy Management & Auditing I; CEMT 202 Energy Management & Auditing II; CEMT 203 Building Automation I; CEMT 204 Building Automation II; CEMT 205 Building Commissioning and Retro Commissioning. ***Or permission and placement by Program Coordinator***

This course serves as an introductory work program in a component of Commercial Energy Management Technology work that provides an experiential learning opportunity

for students interested in pursuing a career in this field. Students will be exposed to the roles performed by Building Automation Specialists, Energy Auditors/Managers and/or Building Commissioning/Retro-Commissioning agents. Students will be encouraged to observe and critically analyze the day-to-day operation of the contracting firm for which they will work and apply theoretical as well as practical concepts learned in the classroom to the work environment.

III. Statement of Course Need

A. Cooperative education opportunities are an integral part of the experiential learning process for students seeking careers in Commercial Energy Management (CEM). This course will afford the student an opportunity to connect the academic material with the day-to-day operations of CEM Contracting firms. By interacting with practitioners, students develop marketable skills and begin to establish valuable networks. Through observation and participation, students are better informed to decide on career choices.

B. This course consists of 135 hours in a CEM contracting business.

C. This course generally transfers as a free elective, but may transfer as a program elective to Pennsylvania College of Technology for those students graduating with the AAS in Commercial Energy Management who are interested in pursuing B.S. degree at that institution.

IV. Place of Course in College Curriculum

A. Free Elective

B. This course meets a program requirement for the A.A.S. Commercial Energy Management Technology Program, and the Commercial Energy Management Technology Certificate.

C. Course transferability: a) for New Jersey schools go to the NJ Transfer website, www.njtransfer.org; b) For all other colleges and universities go their individual websites.

V. Outline of Course Content

A. Outside Work Experience
    1. Work for a Commercial Contractor or in a Commercial facility
        a. Create personal goals related to work experience
        b. Perform duties in a professional manner
B. Meet bi-weekly, as necessary, with program coordinator
    1. Create and submit a resume
    2. Complete and submit reports at the end of each week

3. Submit Final Paper on Work Experience

VI. General Education and Course Learning Outcomes

A. General Education Learning Outcomes

At the completion of the course, students will be able to:

1. Gain practical experience in the Commercial Energy Management Technology field using skills taught and practiced in the classroom through work in an outside firm. (GE-NJ 3).
2. Demonstrate skills learned during practical training in accordance with the written objectives approved for each student. (GE-NJ 4).

B. Course Learning Outcomes

At the completion of this course, students will be able to:

1. Perform skills learned in the classroom in a professional environment.
2. Learn to interact with clients and other professionals at the workplace.
3. Build professional relationships in the Commercial Energy Management Technology field.
4. Work under the guidance of a seasoned professional to gain practical knowledge in the environmental control technology field.

D. Assessment Instruments

1. Completion of work hours
2. Completion and submittal of weekly reports
3. Meetings and/or Conference calls with co-op coordinator

VII. Grade Determinants

A. On-site performance.
B. Job-site reports.
C. Submission of required documentation.

Modes of Teaching and Learning used in the Course:

A. Individual discussion.
B. Reading Assignments.
C. Instructor feedback.

VIII. Texts and Materials

Determined by student's specific work site.

(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

IX. Resources

A. Reference books

B. Safety equipment training
C. Equipment manufacturer technical literature
D. Instructional videos/DVDs
E. HVAC shop/office facility by mentor organization

X. Honors Option

Not applicable