

## **AIRC 214**

### **Residential Estimates and Sales**

3 Credits (3 Lecture hours per week)

Community College of Baltimore County  
Common Course Outline

#### **Description**

**AIRC 214 – Residential Estimates and Sales:** explores the procedures used to calculate costs for residential and commercial HVAC installations and services. The course emphasizes both hand calculations and computer programs to estimate accurate charges. Students develop skills necessary for success in sales of HVAC systems, parts, service, and new installations.

**Pre-requisites:** AIRC 115, AIRC 205, and AIRC 210 or approval of program coordinator

#### **Overall Course Objectives**

Upon completion of this course, students will be able to:

1. use load calculation information to select proper size equipment;
2. develop techniques to price equipment and establish bids;
3. arrange subcontract work as a portion of installation package;
4. formulate sales techniques for small and medium size companies;
5. develop prospecting techniques for new business;
6. calculate cost using the RS MEANS™ calculation technique;
7. determine sheet metal, piping, equipment, and electrical portions of a residential or commercial project;
8. explore advertising needs of small business;
9. develop short and long-term effective business plans; and
10. create an effective sales tracking tool for focused selling.

#### **Major Topics**

- I. Manual cost estimation techniques
- II. Computerized cost estimation techniques
- III. Customer proposal development
- IV. Customer relations
- V. Sales careers
- VI. Service contracts and how to assure constant cash stream
- VII. Commercial marketing
- VIII. Associations and networking
- IX. Sales tasks
- X. Comparative fuel scenarios
- XI. Hybrid HVAC systems and estimates

#### **Course Requirements**

The Common Course Outline (CCO) determines the essential nature of each course.  
For more information, see your professor's syllabus.

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Approved practical project or written paper
  - If a written paper is assigned, the following will apply:
    - Topic of the paper will be selected by the student and should relate to the subject material of the course
    - The paper should be six (6) to eight (8) pages in length, typewritten, and double-spaced. It should include in addition to the six (6) to eight (8) pages of text, an author and title page and bibliography utilizing a minimum of three reference resources excluding classroom materials
    - All papers are due when 80% of the class sessions are completed
- Midterm exam
- Comprehensive final
- Minimum of three (3) classroom assignments
- Minimum of four (4) homework assignments
- Class discussion and participation

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

### **Other Course Information**

This is a Heating, Ventilating, Air Conditioning, and Energy Technology program elective.

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