

SYLLABUS

DIVISION: Business and Engineering Technology **REVISED:** Spring/2013
CURRICULA IN WHICH COURSE IS TAUGHT: Air Conditioning & Refrigeration
COURSE NUMBER AND TITLE: Air 272-01 Refrigeration II

CREDIT HOURS: 5 **HOURS/WK LEC:** 3 **HOURS/WK LAB:** 6 **LEC/LAB COMB:** 9

- I. CATALOG DESCRIPTION:** Studies commercial refrigeration systems, components, sizing, and testing. Includes low temperature refrigeration systems, equipment selection, load calculations, absorption systems, air conditioning systems, window units, air cooled and water cooled condensers.
- II. RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:**
- Acquire an understanding of system fundamentals of commercial refrigeration.
 - Develop manipulative skills and procedures for the installation, operation, and servicing of basic commercial refrigeration systems.
- III. REQUIRED BACKGROUND/PREREQUISITES:**
AIR 271 or equivalent
- IV. COURSE CONTENT:**
Refrigerators and freezers
Ice machines
Commercial refrigeration
Air conditioning
Window units
- V. THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE**
- Communications
 - Learning Skills
 - Critical Thinking
 - Understanding Science and Technology

COURSE OUTLINE

COURSE SECTION NUMBER/TITLE:

AIR 272 Refrigeration II

COURSE PREREQUISITE(S): AIR 271

SEMESTER: Spring

INSTRUCTOR: Mark Bryant

OFFICE NO: Hill Building 106

OFFICE HOURS: Posted

TELEPHONE: O# (434) 797-8473; email: mbryant@dcc.vccs.edu c#(434) 250-7800

TEXTBOOKS, OTHER REFERENCE MATERIALS:

Commercial Refrigeration for Air Conditioning Technicians, 2nd Edition , Dick Wirz

ATTENDANCE REQUIREMENTS:

1. Tests are announced (5) days before tests are given. Tests missed may be made up ONLY if the absence is approved by instructor.
2. Make-up policy: The student must see the instructor the day he/she returns to class for an approved absence at which time a make-up test will be scheduled at the instructor's convenience.
3. Quizzes are not announced and are not made up.
4. Homework assignments will lose 1 point/class when turned in late.
5. Lab grade will be given for daily work and participation in class (½ point/1 hour lab).

COURSE GRADE PROCEDURES:

		Total Points
1.	Grading System:	
	Daily Grade (attendance) & Homework	25%
	Test Grades	50%
	Exam	25%
2.	Letter Grades:	
	A = 100-90	
	B = 89-80	
	C = 79-70	
	D = 69-60	
	F = 59 or below	

STUDENTS WITH SPECIAL NEEDS:

Danville Community College is committed to meeting the needs of all students and providing access for persons with disabilities. Reasonable accommodations are available to those students with diagnosed disabilities. Students with diagnosed disabilities wishing to receive specific accommodations must be registered with the Disability Services. For more information, please contact Laura Daniel, Counselor and ADA Coordinator, at 797-8572 or ldaniel@dcc.vccs.edu

CELL PHONE POLICY

All cell phones in class should be turned off before entering the classroom. For emergency phone calls only, place on vibrate.

COLLEGE ATTENDANCE POLICY:

When absence from a class becomes necessary, it is the responsibility of the student to inform the instructor prior to the absence, whenever possible. The student is responsible for making up all work missed during an absence. It is the philosophy of Danville Community College that student and faculty interactions are critical to the learning process. Class attendance enhances this process. Regular attendance is thus expected of students. Students missing twenty-five percent (25%) or more of the total time allocated for classes and or labs may be administratively withdrawn from the class upon recommendation of the instructor. Students who are administratively withdrawn prior to completion of 60% of the class will be issued a grade of "W." After that point, students who are administratively withdrawn will be issued a grade of "F."

******Students who are receiving financial aid, please note:******

Continuous Alert

If a faculty member submits a continuous alert for a student because of poor attendance, disbursement of financial aid proceeds by check will be blocked until each faculty member submitting such an alert has given Admissions permission to remove the alert. In addition to blocking the check request, a continuous alert blocks enrollment for future semesters until the block is removed.

No Shows

If a student never attends a class or only attends one time before the refund deadline, the student will be considered a "no show" and withdrawn from the class. Faculty will report "no shows" to the division office by the refund deadline for all classes they teach.

VI. LEARNER OUTCOMES**VII. EVALUATION**

Refrigerators and freezers <ul style="list-style-type: none">• Troubleshoot components of each• Ability to understand the operation of each component	Lab exercises Written Test Hands on Training
Ice machines <ul style="list-style-type: none">• Understanding the different types• Troubleshoot components of each type	Written Test Lab Exercises Drawing of wiring diagrams
Air conditioners <ul style="list-style-type: none">• Understanding the types• Ability to identify the different types of refrigerants used• Troubleshoot	Lab Exercises Written Exercises In class assignments
Window units <ul style="list-style-type: none">• Basic understanding of the operation• Troubleshooting	Written Test Lab Exercises Hands on Training