

**MARTIN COMMUNITY COLLEGE**  
**COURSE SYLLABUS**  
**Semester/Year: Spring 2011**

<b>COURSE NUMBER:</b>	REF 275 01	<b>INSTRUCTOR:</b>	Don Golden
<b>COURSE TITLE:</b>	Refrigeration Diagnostics	<b>OFFICE NO:</b>	Building 3 Room 19-A
<b>CREDIT HOURS:</b>	4	<b>OFFICE/VIRTUAL HOURS:</b>	10:00-12:00 T,Th
<b>CONTACT HRS/WK:</b>	8 (2 Class, 6 Lab)	<b>PHONE NO:</b>	252-789-0271
<b>PREREQUISITES:</b>	REF 270	<b>FAX:</b>	252-792-0826
<b>COREQUISITES:</b>	None	<b>E-MAIL:</b>	dgolden@martincc.edu

**COURSE DESCRIPTION:**

This course provides a comprehensive study of total system diagnostics and corrective measures. Topics include system analysis, system operating efficiency, subassembly removal and inspection. Upon completion, students should be able to use instruments to safely analyze and diagnose commercial refrigeration systems.

**PROGRAM LEARNING OUTCOMES:**

1. Service, repair, and troubleshoot commercial refrigeration equipment using the appropriate tools.
2. Describe the principle operating functions of commercial refrigeration systems.
3. Describe the installation requirements for commercial refrigeration systems.

**COURSE LEARNING OUTCOMES:**

1. Explain how a refrigeration system works.
2. Analyze and diagnose breakdowns in a refrigeration system.
3. Repair refrigeration systems.

**REQUIRED TEXTBOOKS:**

Althouse, Andrew, Carl Turnquist and Alfred Bracciano, (2000) Modern refrigeration and air conditioning. Tinley Park, IL: Goodhart-Willcox Co. ISBN 1-56637-724-2

**SUPPLEMENTAL RESOURCES:**

Basic hand tools from first year. Also a recovery unit, charging scale, vacuum pump, and leak detector.

**LEARNING/TEACHING METHODS:**

Labs working on refrigeration equipment , DVD power point, lecture, and outside reading assignment.

**ASSESMENTS/METHODS OF EVALUATION:**

1. Outside Reading Assignments -20%
2. Projects- 20%
3. Quizzes-20%
4. Tests-20%
5. Final Exam-20%

## **GRADING POLICY:**

Martin Community College's Commercial Refrigeration curriculum uses the 7- point scale in its grading system.

Letter Grade	7-Point
A	93-100
B	85-92
C	77-84
D	70-76
F	69 and below

## **COURSE OUTLINE:**

Week 1-2 Chapter 17 Absorption Systems-Principles and Applications  
Week 3-4 Chapter 18 Special Refrigeration Systems and Applications  
Week 5-6 Chapter 18 Special Refrigeration Systems and Applications  
Week 7-8 Chapter 19 Fundamentals of Air Conditioning  
Week 9-10 Chapter 20 Basic Heating and Air Conditioning  
Week 11-12 Chapter 20 Basic Heating and Air Conditioning  
Week 13-14 Chapter 21 Heating and Humidification Systems  
Week 15-16 Review of Chapter and Exams

## **STUDENT ATTENDANCE POLICY:**

The maximum number of hours that may be missed is based on the 20% rule. If a student misses more than 20% of class room hours they will receive an F.

## **COURSE POLICIES:**

1. An absence up test day requires a written note from your doctor in order to take a make-up test.
2. You have three (3) days to make up the test.
3. After three (3) days you will be given a 0 on the test you missed.

## **REQUEST FOR EXCUSED ABSENCES FOR RELIGIOUS OBSERVANCES\***

**\*In compliance with G.S. 115D-5, MCC policy permits a student to be excused, with the opportunity to make-up any test or other missed work, a minimum of two excused absences per academic year for religious observances required by the student's faith. The policy limits the excused absences to a maximum of two days per academic year.**

Students who wish to be excused for a Religious Observance required by their faith must complete and submit a request form to the instructor(s) prior to the census date of each class. The ***Request for Excused Absences for Religious Observances*** form can be picked up from Student Services. This does not supersede the college-wide attendance policy as outlined in the college catalog or syllabus, with the exception of a reasonable accommodation for the make-up of missed course work.

**If you cannot reach your instructor, you may contact Dr. Phyllis Broughton, Dean of Academic Affairs and Student Services at (252)789-0246 by phone, pbroughton@martincc.edu by e-mail, or in person at her office in Building 2, Room 33.**

**To access the Martin Community College Career Catalog for policies and curriculum requirements, please go online to [www.martincc.edu](http://www.martincc.edu).**

*If you have a need for a disability-related accommodation, please notify the Student Services counselor at (252) 798-0293.*