Virginia Western Community College
AIR 154
Heating Systems I

Prerequisites
AIR 122 and AIR 238

Course Description
Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Part I of II.

Semester Credits: 2 Lecture Hours: 2 Lab/Clinical/Internship Hours: 4

Required Materials

Textbook:
Modern Refrigeration, 20th edition, ISBN#: 9781631263545.

Other Required Materials:
Safety glasses will be provided by the student and are required to be worn at all times while in the lab.

Course Outcomes

At the completion of this course, the student should be able to:

- On completion of this course, the successful student will have a general working knowledge and theory and sequence of operation of several types of heating systems, including electric, gas, oil, hydronic and electric heat pumps.
- Be able to Identify and locate basic components and typical system construction and/or layout.
- Be able to use associated tools and test equipment along with measurement and /or calculation of operating conditions.
- Be able to recognize and troubleshoot common faults.

Topical Description

Week	Activity / Topic	Text Reference	Week	Activity / Topic	Text Ref.
1	Syllabus	All Units	9	Gas Heat	Unit 31
2	Electric Heat	Unit 30	10	Gas Heat	Unit 31
3	Electric Heat	Unit 30	11	Unit test / Oil Heat	Unit 32
4	Unit test	Unit 30	12	Oil Heat	Unit 32
5	Heat Pump	Unit 43	13	Geo thermal Heat	Unit 44
6	Heat Pump	Unit 43	14	Geo thermal Heat	Unit 44
7	Heat Pump	Unit 43	15	Test review	
8	Unit test / Gas Heat	Unit 31	16	Oil/Geo thermal Exam	

Notes to Instructors

None