

HVA 1221 – Heating Systems
Credit Type – **Proficiency**



MIAMI VALLEY
TECHPREP

Course Description and Learning Outcomes:
https://www.sinclair.edu/course/params/subject/HVA/courseNo/1221/
Faculty Pathway Specialist(s) (Please include name, email and office hours):
De Dawson, dedawhtgclg@aol.com , 937-369-5460
Resources Needed to Offer Course (software, equipment, books [include ISBN and edition], etc. – please include any associated costs):
Refrigeration and Air Conditioning Technology, 9 th Ed. ISBN: 978-0-3571-2227-3 Hardcopy is about \$185. Other digital options exist at a much lower cost. Requires an assembly of ducted furnaces, heat pumps, and boilers, the number of which is contingent upon the number of students one wishes to educate. Also requires basic hand tools, multi-meters, combustion analyzers, refrigerant gauge sets, again, contingent upon the number of students participating. Costs for equipment are likely 10's of thousands. NOTE: This equipment would allow teaching of 1201 as well.
What is the ideal format for course delivery – in person, online or blended? To what extent could this course be offered online if necessary?
There is significant hands-on, so this course must be presented Face-to-Face
How is the final grade for the course determined? (Please list all required assignments, assessments, etc.)

HW1 - Unit 31 Gas Heat Q1 thru 15
 HW2 - Unit 31 Gas Heat Q16 thru 30
 HW3 - Unit 31 Gas Heat Q31 thru 45
 HW4 - Unit 31 Gas Heat Q46 thru 61
 Test1 - Gas Heat and Parts ID
 HW5 - Bring in drawing & pictures of venting system at home to use during Venting lecture
 HW6 - Unit 30 Electric Heat Q1 thru 7
 HW7 - Unit 30 Electric Heat Q8 thru 15
 Test2 - Combustion Analysis, Unit 30, Venting Tables and Parts IDd
 HW8 - Unit 43 Air Source Heat Pumps Q1 thru 17
 HW9 - Unit 44 Geothermal Heat Pumps Q1 thru 18
 HW10 - Unit 32 Oil Heat Q1 thru 34
 HW11 - Unit 33 Hydronic Heat & Boilers Q1 thru 30
 HW12 - Unit 34 & 35 IAQ, Comfort, Psychrometrics Q1 thru 22
 Test3 - Units 32,33,34,35,43,44 and Parts ID

The above is based on the 8th edition of the book. This may change slightly once the 9th edition is adapted.

Homework	20%	
Labs	20%	
Quizzes	10%	(these three quizzes are not indicated above)
Attendance	5%	
Tests	45%	

Who is responsible for grading the required assignments and/or assessments? (faculty or instructor?)

The course instructor

What is the grading scale for the course?

90%-100%	A
80%-90%	B
70%-80%	C
60%-70%	D
<60%	F

Must students access the eLearn shell regularly to complete requirements?

No

Does the course require access to YouTube, Google Drive, etc.?

YouTube is optional, but not required

Additional course details or requirements important for instructors not covered above:

Most common (or popular) degrees this course is in?

HVAC Residential / Light Commercial Certificate
 HVAC AAS Degree
 Energy Technology Certificate

