

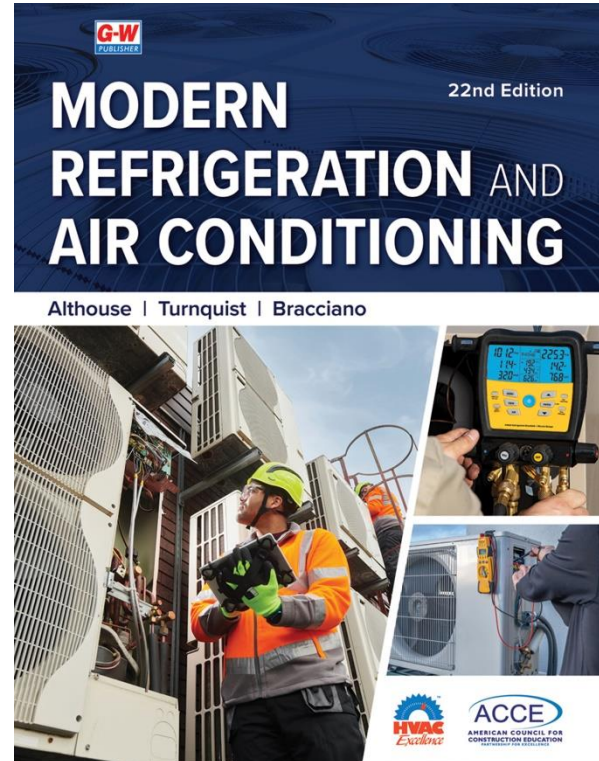


Correlation of
Modern Refrigeration and Air Conditioning, Althouse, Turnquist, Bracciano
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to
AHRI Curriculum Guide III. Safety

Goodheart-Willcox is pleased to partner with the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and the American Council for Construction Education (ACCE) by correlating *Modern Refrigeration and Air Conditioning* to the AHRI Curriculum Guide. The following chart correlates *Modern Refrigeration and Air Conditioning* to a section of the Curriculum Guide developed by AHRI used for ACCE (formerly PAHRA) accreditation.

The chart lists the Curriculum Guide’s knowledge and task competency objectives in the left column and the corresponding chapter numbers from *Modern Refrigeration and Air Conditioning* in the right column.

For more information on the American Council for Construction Education (ACCE) and related accreditation, please visit: www.acce-hq.org



III.A. Personal Safety and Work Practices	
Knowledge	Textbook Chapter(s)
1. Explain clothing and safety equipment.	Chapters 2, 3, 4, 5, 10, 11, 12
2. Review OSHA standards.	Chapters 2, 4, 5, 10, 11, 12
3. Explain the effects of substance abuse on safety.	Chapter 2
4. Review safe driving practices.	Chapters 1, 2
5. Identify, handle, use, and dispose of hardware material.	Chapters 4, 5, 11, 12

Correlation of Modern Refrigeration and Air Conditioning to AHRI Curriculum Guide:

III. Safety—page 2

III.A. Personal Safety and Work Practices (continued)	
Tasks	Textbook Chapter(s)
1. Wear appropriate clothing.	Chapters 2, 3, 5
2. Use safety equipment (e.g., footwear, hearing protection, hardhat, goggles, gloves).	Chapters 2, 3, 4, 5, 10, 11, 12
3. Demonstrate good housekeeping practices in the lab.	Chapters 3, 4
4. Demonstrate proper ladder safety:	Chapters 2, 25
a. wooden	Chapters 2, 25
b. aluminum	Chapters 2, 25
c. fiberglass	Chapters 2, 25
d. scaffolding	Chapters 2, 25
5. Demonstrate proper lifting procedures	Chapters 2, 25
6. Pass safe driving course.	—
7. Use appropriate fire extinguishers.	Chapter 2
8. Conduct routine safety inspections.	Chapter 2
III.B. Handling of Pressurized Fluids	
Knowledge	Textbook Chapter(s)
1. List safety requirements.	Chapters 2, 5, 7, 11, 12, 50
2. Explain application of pressure relief devices.	Chapters 2, 5, 11, 12, 47
3. Explain proper storage and handling of refrigerants.	Chapters 11, 12
4. Explain effect of temperature and hydraulic expansion.	Chapters 6, 7, 11, 12
5. Explain proper storage and handling of oxygen, nitrogen, and acetylene bottles.	Chapters 4, 5, 6
6. Explain the effects of mixing oxygen and oil.	Chapters 2, 12, 34
7. Follow procedures specified on the Material Safety Data Sheet (MSDS)	Chapter 2
8. Store and dispose of hazardous material according to EPA specifications.	Chapters 2, 5, 11, 12, Appendix F
9. Explain ASHRAE Refrigerant Safety Classification of Refrigerants for Toxicity and Flammability.	Chapters 10, 11, 12
Tasks	Textbook Chapter(s)
1. Properly fill and label a refrigerant cylinder.	Chapters 10, 11, 12
2. Determine if a refrigerant cylinder needs retesting.	Chapters 10, 11, 12

III.C. Handling of Hazardous Substances	
Knowledge	Textbook Chapter(s)
1. Explain use of Material Safety Data Sheets (MSDS).	Chapter 2
2. Define difference between hazardous materials, substances, and wastes.	Chapter 2
3. Explain use of hazardous material manifest.	Chapter 2
Tasks	Textbook Chapter(s)
1. Locate MSDS and identify particular effect.	Chapter 2
2. Demonstrate use of proper clothing and equipment.	Chapter 2
3. Demonstrate basic first aid procedures.	Chapter 2
III.D. Electrical Safety	
Knowledge	Textbook Chapter(s)
1. Explain importance of ground fault circuit interrupters.	Chapter 14
2. Explain the use of power tools and accessories.	Chapters 4, 11, 12, 23, 25
3. Discuss work habits.	Chapters 1, 3
4. Explain environmental safety practices.	Chapters 3, 4, 5, 11, 12, 23, 25
5. Explain proper procedures when working with hands-on live equipment.	Chapters 14, 18, 23, 25, 47
Tasks	Textbook Chapter(s)
1. “Fault” a ground fault interrupter.	Chapter 14
2. Demonstrate the use of lockout/tagout equipment.	Chapters 17, 47, 48, 49