Correlation of

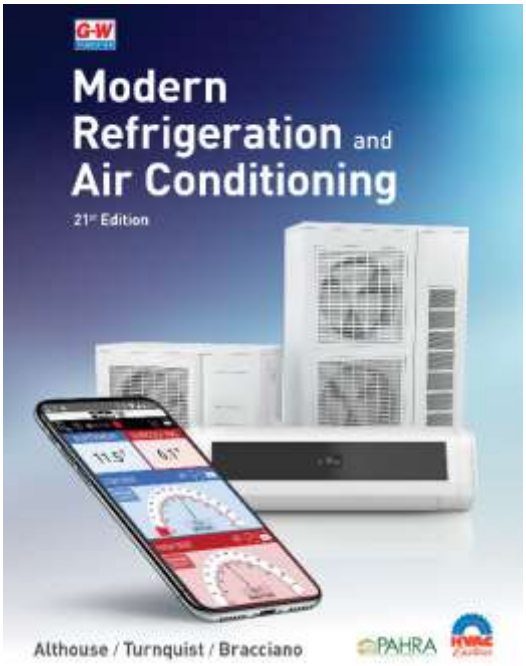
***Modern Refrigeration and Air Conditioning,* by Althouse, Turnquist, Bracciano**
(Goodheart-Willcox Publisher ©2021)
to

AHRI Curriculum Guide: VIII. Solid State Electronics

The following chart correlates the *Modern Refrigeration and Air Conditioning* textbook (©2021) to a section of the Curriculum Guide developed by Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and used for PAHRA accreditation.

The chart lists the Curriculum Guide's knowledge and task competency objectives and the corresponding chapter numbers from *Modern Refrigeration and Air Conditioning*.

For more information on the Partnership for Air-Conditioning, Heating, Refrigeration Accreditation (PAHRA) and related accreditation, please visit: www.pahrahvacr.org



VIII.A. Solid State Components	
Knowledge	**Textbook Chapter(s)**
1. Explain the function and/or application in HVACR circuits and controls of:	
a. amplifiers	Chapter 14
b. bilateral switches	Chapters 14, 16
c. capacitors	Chapters 12, 13, 14, 15, 16, 18
d. diodes	Chapter 14
e. direct digital control/system (DDC/DDS)	Chapters 16, 45
f. effects of heat and moisture	Chapters 14, 15, 16, 35
g. photoelectric cell	Chapters 14, 44
h. rectifiers	Chapter 14
i. resistors	Chapter 12
j. semiconductors	Chapter 14

Correlation of *Modern Refrigeration and Air Conditioning* to AHRI Curriculum Guide:
VIII. Solid State Electronics—page 2

VIII.A. Solid State Components (continued)	
Knowledge	**Textbook Chapter(s)**
k. shielded wiring	Chapter 13
l. sensors	Chapter 14
m. silicon controlled rectifiers (SCR)	Chapter 14
n. thermistors	Chapter 14
o. transducers	Chapter 14
p. transistors	Chapter 14
q. triacs	Chapter 14
2. Explain the role computers are now playing in the HVACR industry.	Chapters 14, 16, 45
Tasks	**Textbook Chapter(s)**
1. Measure resistive value of various sensors.	Chapters 14, 15, 16
2. Measure operability of various boards.	Chapters 14, 15, 16
3. Test electronic air cleaners.	Chapters 14, 16, 18, 28, 30