

Profile Chart: RACM (Residential) - Technical Training

Course A: Occupational Skills	A1 Orientation I: Structure and Scope of Refrigeration and Air Conditioning Mechanic	A2 Orientation II: The Job Journeywork	A3 Trade Safety Awareness	A4 Tools and Equipment	A5 Communication
	Level 1 Hours: 7	Level 4 Hours: 14	Level 1 Hours: 7	Level 1 Hours: 20	Level 1 Hours: 7
	A6 Hoisting, Lifting, Rigging and Access/Egress Equipment	A7 Refrigeration Fundamentals	A8 Refrigerants and Oils	A9 Piping, Tubing, Soldering and Brazing I	A10 Pipe Threading and Assembly
	Level 1 Hours: 7	Level 1 Hours: 69	Level 1 Hours: 10	Level 1 Hours: 20	Level 2 Hours: 20
A11 Leak Testing, Evacuation and Charging	A12 Electrical Fundamentals	A13 Blueprint Reading and Drafting	A14 Trade Documents	A15 Pressure Enthalpy Diagrams	
Level 1 Hours: 15	Level 1 Hours: 49	Level 1 Hours: 20	Level 1 Hours: 6	Level 2 Hours: 15	
A16 Job Coordination	A17 Sheet Metal: Simple Layout	A18 Pre-Certification Review			
Level 3 Hours: 5	Level 3 Hours: 14	Level 3 Hours: 35			
Course B: Trade Math and Science	B1 Trade Math	B2 Science I	B3 Science II		
	Level 1 Hours: 15	Level 1 Hours: 15	Level 2 Hours: 16		
Course C: Refrigeration and Air Cooling Systems	C1 Refrigeration and Air Conditioning Installation	C2 Building Heat Loss, Heat Gain, Load Calculations	C3 Refrigeration System Design		
	Level 2 Hours: 29	Level 3 Hours: 30	Level 3 Hours: 25		
Course D: Heating, Ventilation and Air Conditioning Systems	D1 Air Conditioning Fundamentals	D2 Air Conditioning Systems	D3 Packaged Air Conditioning Units	D4 Heat Pump Systems	D5 Air Conditioning System Design
	Level 2 Hours: 35	Level 3 Hours: 25	Level 3 Hours: 10	Level 3 Hours: 9	Level 3 Hours: 30
	D6 Duct Systems and Design	D7 Heating Systems	D8 Air Measuring Instruments and System Air Balancing		
Level 3 Hours: 25	Level 3 Hours: 18	Level 3 Hours: 8			
Course E: Refrigeration, Heating, Ventilation and Air Conditioning System Components	E1 Valves and Accessory Devices	E2 Compressors I	E3 Compressors II	E4 Motors I	E5 Metering Devices
	Level 1 Hours: 8	Level 1 Hours: 15	Level 2 Hours: 25	Level 2 Hours: 30	Level 2 Hours: 20
	E6 Fans, Mechanical Drives, Air Filters, Air Cleaners	E7 Condensers	E8 Evaporators	E9 Fluid Dynamics and Circulating Pumps	
Level 2 Hours: 20	Level 2 Hours: 15	Level 2 Hours: 15	Level 3 Hours: 7		

Course F: Control Systems	F1 Control Fundamentals	F2 Control Circuits and Wiring Diagrams	F3 Troubleshooting Refrigeration and Air Conditioning Electronics
	Level 2 Hours: 20	Level 2 Hours: 30	Level 3 Hours: 30

Course G: Gas Fitter	G1 Gas Code I (includes propane)	G2 Gas Code II (includes propane)	G3 Gas Code III (includes propane)	G4 Gas/Safety Control Requirements	G5 Supply Air/Venting Permit Requirements
	Level 1 Hours: 25	Level 2 Hours: 25	Level 3 Hours: 25	Level 4 Hours: 35	Level 4 Hours: 34
	G6 Gas Burning Equipment & Materials Determination/Burner Orifice Sizing/Conversion Work	G7 Longest Run/Gas Burning Equipment BTU Input Demand, Systems/Pipe Size Determination/Pressur e & Meas. Requirements	G8 Tests/Inspects Piping & Gas Appliance Efficiency	G9 Electrical Requirements	G10 Alternate Fuel Systems
	Level 4 Hours: 38	Level 4 Hours: 42	Level 4 Hours: 33	Level 4 Hours: 105	Level 4 Hours: 14
	G11 Applied Trades Projects				
	Level 4 Hours: 35				