

MODEL ROUTE

School:

School of Engineering Technology and Applied Science - SDRE

Program Number:

3825

Program Title:

Heating, Refrigeration and Air Conditioning Technician

Credential:

☐ Certificate
☐ Graduate Certificate
☐ Degree
☒ Diploma
☐ Advanced Diploma

Program Delivery Mode:

☐ Co-Op
☐ Online
☐ Fast Track
☐ Hybrid
☒ Non Co-op

Duration :

☐ 2 Semesters
☐ 3 Semesters
☒ 4 Semesters
☐ 6 Semesters
☐ 8 Semesters

Campus:

Progress Campus

Intake:

Fall 2024/Winter 2025

Course Code	Course Title	Co/Pre Requisite (Course Code)	Lab Hours	Lecture Hours	Field Placement Hours	Course Delivery ODL=Online BLD=Blended HYB = Hybrid	Total Course Hrs (Lab + Lecture + Field)	Weeks (14)	Total Hours
Semester 1									
Fall 2024/Winter 2025									
HRAC111	Acts, Regulations and Procedures		2	4		HYB	6	14	84
HRAC112	Fundamentals of Cooling Cycles	CO=HRAC113	2	2			4	14	56
HRAC113	Mechanical Cooling Cycle	CO=HRAC112	2	2		HYB	4	14	56
HRAC124	Pipe Joining & Installation for Heating & Cooling		2	2			4	14	56
MATH101	Mathematics 1		0	4		HYB	4	14	56
COMM160/161	College Communication 1		0	3			3	14	42
								Total	350
Semester 2									
Winter 2025/Summer 2025									
HRAC121	Electrical Fundamentals	MATH101	2	2			4	14	56
HRAC122	Mechanical Drawing & Prints		2	3			5	14	70
HRAC123	Heating Fundamentals	HRAC111	3	3			6	14	84
COMM170/171	College Communication 2	COMM160/161	0	3			3	14	42
GNED	General Education Elective		0	3			3	14	42
GNED500	Global Citizenship: From Social Analysis to Social Action		0	3		ODL, BLD, HYB	3	14	42
								Total	336
Break (fall intake only)									
Summer 2025									
Semester 3									
Fall 2025									
HRAC211	Psychrometrics - Control		3	2			5	14	70
HRAC212	System Design & Installation	HRAC122	3	3			6	14	84
HRAC213	Electrical & Control Systems	HRAC121	3	2			5	14	70
MATH216	Mathematics for HRAC	MATH101	0	4		HYB	4	14	56
AMEG212	Applied Ethics in Technology and the Environment		0	2		ODL	2	14	28
								Total	308
Semester 4									
Winter 2026									
HRAC221	Capstone Project	HRAC211, HRAC212, HRAC213	3	1			4	14	56
HRAC222	Heating Hydronic Fundamentals	HRAC123	2	2		HYB	4	14	56
HRAC223	Air Conditioning & Distribution Systems	HRAC212, HRAC122	2	4			6	14	84
HRAC224	Advanced Electrical and Control Systems	HRAC213, MATH216	3	3			6	14	84
GNED	General Education Elective		0	3		ODL, BLD, HYB	3	14	42
								Total	322
Total Program Hours:									1316

C = Co-Requisite; P = Pre-Requisite

## MODEL ROUTE

<b>School:</b>	School of Engineering Technology and Applied Science - SDRE	<b>Program Number:</b>	3825
<b>Program Title:</b>	<b>Heating, Refrigeration and Air Conditioning Technician</b>	<b>Credential:</b>	<input type="checkbox"/> Certificate <input type="checkbox"/> Graduate Certificate <input type="checkbox"/> Degree <input checked="" type="checkbox"/> Diploma <input type="checkbox"/> Advanced Diploma
<b>Program Delivery Mode:</b>	<input type="checkbox"/> Co-Op <input type="checkbox"/> Online <input type="checkbox"/> Fast Track <input type="checkbox"/> Hybrid <input checked="" type="checkbox"/> Non Co-op	<b>Duration :</b>	<input type="checkbox"/> 2 Semesters <input type="checkbox"/> 3 Semesters <input checked="" type="checkbox"/> 4 Semesters <input type="checkbox"/> 6 Semesters <input type="checkbox"/> 8 Semesters

Campus:	Progress Campus								
Intake:	Fall 2024/Winter 2025								
Course Code	Course Title	Co/Pre Requisite (Course Code)	Lab Hours	Lecture Hours	Field Placement Hours	Course Delivery ◆ ODL=Online BLD=Blended HYB = Hybrid	Total Course Hrs (Lab + Lecture + Field)	Weeks (14)	Total Hours

**Notes:**  
 ◆ Courses may be offered in one of the following modalities (Online, Hybrid or Blended)  
 Overall GPA 2.0 required for graduation

Courses highlighted in Red (HRAC111, HRAC124, HRAC121, HRAC123) are required to qualify for Gas 3 Test. You must achieve above 75% in all lab component AND 80% attendance in lecture component to qualify for G3 practical exams.

Gas Technician 3 and 2 Testing takes place outside of regularly scheduled classes. (ie Engagement Week, Weekend, between semesters)

**Signature:**

  


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Clarence Cheung  
School Dean/Chair

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March 28, 2024  
Revised Date