

Programme Name	CERTIFICATE IV IN REFRIGERATION & AIR CONDITIONING
Programme Description	This course is offered to provide the Refrigeration and Air Conditioning (RAC) industry with skilled tradespeople that are able to independently install, maintain, service, and commission plant and equipment to industry standards. RAC plant and equipment may include: commercial air conditioning plant found in multi-story buildings; commercial refrigeration equipment similar to that found in a supermarket; domestic refrigerators; heat/energy recovery units; industrial single or multi-staged refrigeration and air conditioning systems; or temperature and environmental control equipment in the food processing industry.
Majors	
Minimum Requirements	(a) Successful Completion of Year 12 or Form 6. (b) Indentured applicants with less than the above requirements but at least two years industrial experience can be considered.
Duration	4 Quarters - 8 months + 1 year Industrial Attachment = 2 years. For apprentices the program should be completed in 4 years, including the mandatory minimum of twelve-month industrial attachment
Programme Type	Quarter modes/ 4 quarters per Year
College Name	COLLEGE OF ENGINEERING, SCIENCE & TECHNOLOGY
Campus	Samabula
Credit Points	120

	Course Code	Course name	Prerequisite	Teaching Hrs	Workshop / tutorial Hours	Self-directed Learning Hours	Timetable Hours/Quarter	Learning Hours/Quarter	Credit Value
	Quarter 1								
1	RAC311	Refrigeration Fundamentals	MER	3	3	8	42	50	5
2	COM303	Introduction to Communication Literacy.	MER	3	3	8	42	50	5
3	RAC333	Test Equipment's	MER	2	4	8	42	50	5
4	RAC334	Electrical Fundamentals	MER	3	3	8	42	50	5
5	RAC335	Refrigerants	MER	3	3	8	42	50	5
6	OHS301	Occupational Health and Safety 1	MER	4	2	8	42	50	5
TOTAL PER QUARTER				18	18	48	252	300	30
	Course Code	Course name	Prerequisite	Teaching Hours	Workshop / tutorial Hours	Self-directed Learning Hours	Timetable Hours/Quarter	Learning Hours/Quarter	Credit Value
	Quarter 2								
1	RAC336	Refrigeration Components	RAC311	3	3	8	42	50	5

2	RAC332	Refrigeration Procedures	RAC311	3	3	8	42	50	5
3	RAC337	Refrigeration Operations	RAC311	2	4	8	42	50	5
4	RAC338	Refrigerant Flow Controls	RAC311	3	3	8	42	50	5
5	ETH301	Fundamentals of Ethical Practices	MER	4	2	8	42	50	5
6	CIN301	Computer Use and Applications	MER	4	2	8	42	50	5
TOTAL PER QUARTER				19	17	48	252	300	30
	Course Code	Course name	Prerequisite	Teaching Hours	Workshop / tutorial Hours	Self-directed Learning Hours	Timetable Hours/Quarter	Learning Hours/Quarter	Credit Value
Quarter 3									
1	RAC400	Principles of AC and DC Currents	RAC334	2	4	8	42	50	5
2	RAC401	Appliance Motor and Electrical Circuits	RAC334	3	3	8	42	50	5
3	RAC402	Refrigeration Systems Control	RAC337	3	3	8	42	50	5
4	RAC403	Domestic Refrigerators and Freezers	RAC311, RAC332	2	4	8	42	50	5
5	RAC404	Merchandising and Display Cabinets	RAC337	4	2	8	42	50	5
6	RAC405	Commercial Refrigeration and Installation Procedures	RAC338	4	2	8	42	50	5
TOTAL PER QUARTER				17	19	48	252	300	30
QUARTER 4									
	Course Code	Course name	Prerequisite	Teaching Hours	Workshop / tutorial Hours	Self-directed Learning Hours	Timetable Hours/Quarter	Learning Hours/Quarter	Credit Value
	RAC406	Cooling Tower Operations	RAC 307, RAC 415	2	4	8	42	50	5
	RAC407	Introduction to Air Conditioning	RAC 305,RAC 415	2	4	8	42	50	5
	RAC408	Ventilation	RAC 414,RAC 415	2	4	8	42	50	5
	RAC409	Air Conditioning Systems	RAC 408	3	3	8	42	50	5
	RAC410	Air Conditioning Controls	RAC 408	3	3	8	42	50	5
	RAC411	Fault Finding and Diagnostics	RAC 415	3	3	8	42	50	5
TOTAL PER QUARTER				15	21	48	252	300	30