



Academic Form-38: PROGRAM MATRIX

Faculty	Engineering
Program	Mechanical & Mechatronic Engineering
Award	Bachelor in Engineering
Credit Units	69
Academic Year	2023/2024

Level	Semester 1					Semester 2				
	Course Code	Course Name	Pre-requisite	Core/Elective	Units	Course Code	Course Name	Pre-requisite	Core/Elective	Units
1	ENGG1013	Engineering Drawing and Computer drafting	None	Core	1	ELEC1100	Principles of Electrical Circuits	None	Core	2
	UNIR1100	Communication Skills I	None	Core	2	MATH1100	Calculus & Linear Algebra	MATH1000	Core	2
	MATH1000	Mathematical Foundations	Set 3 Math	Core	2	ENGG1010	Applied Mechanics	None	Core	2
	CHEM1020	General Chemistry	None	Core	2	ENGG1023	Engineering Materials	None	Core	2
	COMP1500	Introduction to Programming	None	Core	2	UNIR1001	Oman and Islamic Culture	None	Core	1
2	MECH2118	Manufacturing Processes	None	Core	2	METR2000	Fundamentals of Mechatronics	None	Core	2
	ELEC2113	Instrumentation & Measurement	ELEC1100	Core	2	MECH2108	Mechanical Drawing & Design fundamentals	ENGG1013	Core	2
	MECH2308	Strength of Materials	ENGG1010	Core	2	MECH2413	Fluids Mechanics	None	Core	2
	MATH2100	Calculus & Statistics	MATH1100	Core	2	UNIR2100	Communication Skills II	UNIR1100	Core	2
	UNIR2001	Entrepreneurship	None	Core	2	UNIR1002	Arabic Language Skills	None	Core	1
3	METR3200	Control Systems Engineering	None	Core	2	METR3013	Programmable Logic Controllers and Automation	None	Core	2



	MECH3800	Non-destructive testing methods & Metrology	None	Core	2	MECH3313	Advanced Machine Design & Finite Elements	None	Core	2
	MECH3408	Heat Transfer	None	Core	2	MECH3508	Thermodynamics	None	Core	2
	ENGG3700	Numerical Analysis & Optimization	None	Core	2	UNIR3100	Communication Skills III	UNIR2100	Core	2
4	MECH4213	Robot Dynamics and Mechanical Vibrations	None	Core	2	MECH4513	Refrigeration & Heat Engines	MECH3508	Core	2
	MECH4913	Design Project A	None	Core	2	MECH4914	Design Project B	None	Core	2
	METR4913	Computer Vision and Image Processing	None	Core	2	MECH4012	Advanced Manufacturing technology	MECH2118	Core	2
	ENGG4801A	Thesis Project	None	Core	2	ENGG4801B	Thesis Project	ENGG4801A	Core	2