

Master of Engineering Practice (Smart and Renewable Electrical Power Systems Engineering)

Academic Chair: M.Calais@murdoch.edu.au

Start Date: Semester 2 2024

Minor: Engineering Design – Option 1 (Specified Elective in S1 Year 2)

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
				ENG536 Electrical Machines in the Smart Grid era
			ENG543 Modelling and Systems Engineering	3
			ENG544 Engineering Sustainability	3
			ICT515 Foundations of Data Science	3
	Total		Total	12
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	ENG532 Renewable Energy Resources and Technologies	3	ENG534 Power Systems Operation, Control and Protection	3
	ENG535 Power Electronics - Converters and Applications	3	ENG538 Future Electricity Networks	3
	ENG537 Power System Modelling and Analysis	3	ENG605 Design Project (H option)	3
	ENG500 Finance, Management, Ethics and Law	3	BUS368 Cultures of Innovation	3
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	GRD503 Design Thinking Tools	3		
	ENG631 Distributed Power System and Microgrid Planning and Reliability	3		
	ENG605 Design Project (H option)	3		
	Specified Elective	3		
	ENG100 Engineering Professional Practice	0		
	Total	12	Total	

TOTAL CREDIT POINTS 48

Master of Engineering Practice (Smart and Renewable Electrical Power Systems Engineering)

Academic Chair: M.Calais@murdoch.edu.au

Start Date: Semester 2 2024

Minor: Engineering Design – Option 2 (Specified Elective in S2 Year 2)

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
				ENG536 Electrical Machines in the Smart Grid era
			ENG543 Modelling and Systems Engineering	3
			ENG544 Engineering Sustainability	3
			ICT515 Foundations of Data Science	3
	Total		Total	12
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	ENG532 Renewable Energy Resources and Technologies	3	ENG534 Power Systems Operation, Control and Protection	3
	ENG535 Power Electronics - Converters and Applications	3	ENG538 Future Electricity Networks	3
	ENG537 Power System Modelling and Analysis	3	ENG605 Design Project (H option)	3
	ENG500 Finance, Management, Ethics and Law	3	Specified Elective	3
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	GRD503 Design Thinking Tools	3		
	ENG631 Distributed Power System and Microgrid Planning and Reliability	3		
	ENG605 Design Project (H option)	3		
	BUS354 Leading Emerging Futures	3		
	ENG100 Engineering Professional Practice	0		
	Total	12	Total	

TOTAL CREDIT POINTS 48

Recommended Specified Electives

ENG553 Industrial Process Control (S1)
 ENG552 Industrial Control Systems (S1)
 ENG551 Microcontrollers and Data Communication (S1)
 ENG570 Circular Economy and Innovation (S1)
 ENG630 Hydrogen Systems (S2)
 ICT606 Machine Learning (S1)
 PEN504 Greenhouse Gas Reporting and Life Cycle Assessment (S2)
 TLC501 Communication Skills for Postgraduate Study (S1, S2)

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Start Date: Semester 2 2024

Minor: Engineering Research – Option 1 (Specified Elective in S1 Year 2) (only available to students with a GPA of $\geq 70\%$ or with permission of the Academic Chair)

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
				ENG536 Electrical Machines in the Smart Grid era
			ENG543 Modelling and Systems Engineering	3
			ENG544 Engineering Sustainability	3
			ICT515 Foundations of Data Science	3
	Total		Total	12
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	ENG532 Renewable Energy Resources and Technologies	3	ENG534 Power Systems Operation, Control and Protection	3
	ENG535 Power Electronics - Converters and Applications	3	ENG538 Future Electricity Networks	3
	ENG537 Power System Modelling and Analysis	3	ENG606 Thesis Project (H option)	6
	ENG500 Finance, Management, Ethics and Law	3		
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	ENG631 Distributed Power System and Microgrid Planning and Reliability	3		
	ENG606 Thesis Project (H option)	6		
	Specified Elective	3		
	ENG100 Engineering Professional Practice	0		
	Total	12	Total	

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Master of Engineering Practice (Smart and Renewable Electrical Power Systems Engineering)

Academic Chair: M.Calais@murdoch.edu.au

Start Date: Semester 2 2024

Minor: Engineering Research – Option 2 (Specified Elective in S2 Year 2) (only available to students with a GPA of $\geq 70\%$ or permission of the Academic Chair)

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
				ENG536 Electrical Machines in the Smart Grid era
			ENG543 Modelling and Systems Engineering	3
			ENG544 Engineering Sustainability	3
			ICT515 Foundations of Data Science	3
	Total		Total	12
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	ENG532 Renewable Energy Resources and Technologies	3	ENG534 Power Systems Operation, Control and Protection	3
	ENG535 Power Electronics - Converters and Applications	3	ENG538 Future Electricity Networks	3
	ENG537 Power System Modelling and Analysis	3	ENG606 Thesis Project (H option)	3
	ENG500 Finance, Management, Ethics and Law	3	Specified Elective	3
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	ENG631 Distributed Power System and Microgrid Planning and Reliability	3		
	ENG606 Thesis Project (H option)	9		
	ENG100 Engineering Professional Practice	0		
	Total	12	Total	

TOTAL CREDIT POINTS 48

Recommended Specified Electives

ENG553 Industrial Process Control (S1)
 ENG552 Industrial Control Systems (S1)
 ENG551 Microcontrollers and Data Communication (S1)
 ENG570 Circular Economy and Innovation (S1)
 ENG630 Hydrogen Systems (S2)
 ICT606 Machine Learning (S1)
 PEN504 Greenhouse Gas Reporting and Life Cycle Assessment (S2)
 TLC501 Communication Skills for Postgraduate Study (S1, S2)

Please note: This course plan is a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as outlined in the [Handbook](#). Students should note that due to unit prerequisites, commencing study in Semester 2 may extend the duration of the course. This information is correct as at 10/06/2024.