Master of Engineering Practice M1330 (Smart and Renewable Electrical Power Systems Engineering)

Academic Chair: M.Calais@murdoch.edu.au **Start Date:** Semester 2 2026

Major: Smart and Renewable Electrical Power Systems Engineering
Minor: ***Engineering Design*** **(recommended for international students)**

	Semester 1 Units	CP	Semester 2 Units	CP
Year 1 – 2026			**ENG526** Postgraduate Engineering Skills and Tools	3
			ENG543 Modelling and Systems Engineering	3
			ENG544 Engineering Sustainability	3
			ICT515 Foundations of Data Science	3
	Total		**Total**	12
Year 2 - 2027	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	ENG532 Renewable Energy Resources and Technologies	3	**ENG534** Power Systems Operation, Control and Protection	3
	ENG536 Electrical Machines in the Smart Grid era	3	**ENG538** Future Electricity Networks	3
	ENG537 Power System Modelling and Analysis	3	***GRD503 Design Thinking Tools or Specified Elective***	3
	ENG500 Finance, Management, Ethics and Law	3	***ENG605 Design Project*** (H option)[1]	3
			ENG100 Engineering Professional Practice (H option)	0
	Total	12	**Total**	12
Year 3 - 2028	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	ENG535 Power Electronics - Converters and Applications	3		
	ENG631 Distributed Power System and Microgrid Planning and Reliability	3		
	Specified Elective or GRD503 Design Thinking Tools	3		
	ENG605 Design Project (H option)[1]	3		
	ENG100 Engineering Professional Practice (H option)	0		
	Total	12	**Total**	

TOTAL CREDIT POINTS 48

ENG100 Engineering Professional Practice (0 CP)
Master of Engineering Practice students must complete 450 hours of approved work experience to meet the course requirements.

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)
SIK502 Wandju Boodja (Welcome to Country) (S1, S2)
(Any other elective units are subject to approval from the Academic Chair)

[1] Students enrolling in the H-Option of ENG605 need to pay the full unit fee (6 cpts) at the commencement of the teaching period.

Master of Engineering Practice M1330 (Smart and Renewable Electrical Power Systems Engineering)

Academic Chair: M.Calais@murdoch.edu.au **Start Date:** Semester 2 2026

Major: Smart and Renewable Electrical Power Systems Engineering
Minor: ***Engineering Research*** **(only available to students who can demonstrate an average 70% or greater WAM equivalent (2.8 GPA equivalent) during their first 24 cpts of study in the Master of Engineering Practice course, or alternatively can enrol with permission from the Academic Chair.)**

	Semester 1 Units	CP	Semester 2 Units	CP
Year 1 – 2026			**ENG526** Postgraduate Engineering Skills and Tools	3
			ENG543 Modelling and Systems Engineering	3
			ENG544 Engineering Sustainability	3
			ICT515 Foundations of Data Science	3
	Total		**Total**	12
Year 2 - 2027	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	ENG532 Renewable Energy Resources and Technologies	3	**ENG534** Power Systems Operation, Control and Protection	3
	ENG536 Electrical Machines in the Smart Grid era	3	**ENG538** Future Electricity Networks	3
	ENG537 Power System Modelling and Analysis	3	***ENG606 Thesis Project*** (H option)[2]	6
	ENG500 Finance, Management, Ethics and Law	3	**ENG100** Engineering Professional Practice (H option)	0
	Total	12	**Total**	12
Year 3 - 2028	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	ENG631 Distributed Power System and Microgrid Planning and Reliability	3		
	ENG606 Thesis Project (H option)	6		
	ENG535 Power Electronics - Converters and Applications	3		
	ENG100 Engineering Professional Practice (H option)	0		
	Total	12	**Total**	

TOTAL CREDIT POINTS 48

ENG100 Engineering Professional Practice (0 CP)
Master of Engineering Practice students must complete 450 hours of approved work experience to meet the course requirements.

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 course duration. This information is correct as of 01/06/2026.

[2] Students enrolling in the H-Option of ENG606 need to pay the full unit fee (12 cpts) at the commencement of the teaching period.