

H1264 Industrial Computer Systems Engineering (BE(Hons))

Sample Course plan 2019, Semester 1 entry

Major Prerequisites

Mathematics Background

Students may need to complete one prerequisite unit depending on their background in mathematics with either a C grade in Mathematics Specialist ATAR (or Mathematics: Specialist 3C/3D) or a final scaled score of 60 percent or more in Mathematics Methods ATAR (or Mathematics 3C/3D). Students without this background will need to complete,

MAS164 Fundamentals of Mathematics - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external

Physics Background

Students may need to complete one prerequisite unit depending on their background in physics OR a final scaled score in Physics 3A/3B (or equivalent) of 60 percent or more within the past three years. Students without this background will need to complete,

PEN120 General Physics - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external

If you need MAS164 and/or PEN120, please contact your Academic Chair or Student Advisor to discuss your options, <http://our.murdoch.edu.au/Student-life/My-First-Year/Student-Life/Student-Advisors/#engineering>

	Semester 1	Semester 2
Year 1	BEN100 Transitioning into Engineering 3pts	ENG192 Energy, Mass and Flow 3pts
	PEN152 Principles of Physics 3pts	ENG125 Circuits and Systems I 3pts
	BEN150 Design Concepts in Engineering 3pts	ENG109 Engineering Computing Systems 3pts
	MAS182 Applied Mathematics 3pts	MAS161 Calculus and Matrix Algebra 3pts
	<u>12pts</u>	<u>12pts</u>
Year 2	BEN200 Scientific Method in Engineering 3pts	ENG207 Principles of Electronic Instrumentation 3pts
	ENG298 Principles of Process Engineering 3pts	ENG299 Control Systems and Process Dynamics 3pts
	ENG297 Circuits and Systems II 3pts	ENG294 Discrete Time Systems 3pts
	MAS220 Mathematical Methods 12pts	BRD2XX University-wide breadth unit 12pts
	<u>12pts</u>	<u>12pts</u>

Students should note that if unit prerequisites are required, this may extend the duration of your course.

Disclaimer: This course plan is a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as per the online [Handbook](#).

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Year 3	BEN300 Innovation and Ethics in Engineering	3pts	ENG319 Real Time and Embedded Systems	3pts
	ENG311 PLC Systems	3pts	ENG336 Engineering, Finance, Management and Law	3pts
	Specified Elective Unit	3pts	ENG321 Instrument and Communication Systems	3pts
	Specified Elective Unit	3pts	Specified Elective Unit	3pts
		<u>12pts</u>		<u>12pts</u>
Year 4	ENG448 SCADA and Systems Architecture	3pts	ENG470 Engineering Honours Thesis	12pts
	ENG447 Industrial Computer Systems Design	3pts		
	Specified Elective Unit	3pts		<u>12pts</u>
	Specified Elective Unit	3pts		
		<u>12pts</u>		

Specified Electives: In order to obtain professional accreditation, students must undertake units that are acceptable to Engineers Australia. It is recommended that units be chosen at 300 or 400 level from the other Engineering majors or other 300/400 level units with permission of the Engineering Academic Chair.

All students will undertake at least 450 hours of approved work experience, and complete a report outlining the experience gained, in order to complete the requirements of the degree.

Important points to note in all Electrical Engineering degrees:

- Not all units are available in both semesters
- All units follow a sequence and require prerequisites
- There are no elective spaces for free choice of units.
- All units beyond the first year, are only available internally

Every semester, if you change anything in your course, or you fail units, this will affect your ability to progress smoothly through your degree.

If this occurs, always make an appointment with your Academic Chair to discuss.

http://www.murdoch.edu.au/contacts/academic/division/school/School_of_Engineering_and_Information_Technology/

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