# H1264 Renewable Energy Engineering (BE(Hons)) Sample Course plan 2018, 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,

<u>MAS164</u> 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 meet with your Academic Chair or Student Advisor to discuss your options, <a href="http://our.murdoch.edu.au/Student-life/My-First-Year/Student-Life/Student-Advisors/#engineering">http://our.murdoch.edu.au/Student-life/My-First-Year/Student-Life/Student-Advisors/#engineering</a>

|        | Semester 1   |                                       | Semester 2  |   |
|--------|--|---------------------------------------|---|---|
| Year 1 | BEN100 Transitioning into Engineering<br>PEN152 Principles of Physics<br>BEN150 Design Concepts in<br>Engineering<br>MAS182 Applied Mathematics            | 3pts<br>3pts<br>3pts<br>3pts<br>12pts | ENG192 Energy, Mass and Flow<br>ENG125 Circuits and Systems I<br>ENG109 Engineering Computing Systems<br>MAS161 Calculus and Matrix Algebra                                 | 3pts<br>3pts<br>3pts<br>3pts<br>12pts         |
| Year 2 | BEN200 Scientific Method in<br>Engineering<br>ENG298 Principles of Process<br>Engineering<br>ENG297 Circuits and Systems II<br>MAS220 Mathematical Methods | 3pts<br>3pts<br>3pts<br>3pts<br>12pts | ENG207 Principles of Electronic<br>Instrumentation<br>ENG299 Control Systems and Process<br>Dynamics<br>ENG294 Discrete Time Systems<br>BRD2XX University-wide breadth unit | 3pts<br>3pts<br>3pts<br>3pts<br>3pts<br>12pts |
| Year 3 | BEN300 Innovation and Ethics in<br>Engineering<br>ENG338 Energy Management and<br>Systems<br>Specified Elective Unit<br>Specified Elective Unit            | 3pts<br>3pts<br>3pts<br>3pts<br>12pts | ENG337 Applied Photovoltaics<br>ENG339 Wind Energy Engineering<br>ENG336 Engineering, Finance,<br>Management and Law<br>Specified Elective Unit                             | 3pts<br>3pts<br>3pts<br>3pts<br>12pts         |

# Students should note that if unit prerequisites are required, this may extend the duration of the 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 <u>Handbook</u>.

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**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, plus 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. <u>http://www.murdoch.edu.au/contacts/academic/division/school/School\_of\_Engineering\_and\_Information\_T\_echnology/</u>