## PROGRAM PLAN

### BACHELOR OF ELECTRICAL & ELECTRONIC ENGINEERING (HONOURS) / BACHELOR OF SCIENCE

**Program Code:** 40199  
**CRICOS Provider:** 00109J

- **If you have any questions visit:** [NEWCASTLE.EDU.AU/ASKUON](http://NEWCASTLE.EDU.AU/ASKUON)
- **Information correct as of November 2019 and subject to change**

**Program Option:** Commencing in Semester 2  
**Start Date:** 2017 to 2020  
**Location:** Callaghan

This Program Plan is an enrolment guide to ensure you are on track to graduate. If at any time you wish to vary from this program plan seek advice from your Program Advisor to ensure you remain on track.

### PROGRAM HANDBOOK  
### COURSE HANDBOOK

**NAME:**  
**STUDENT NO.:**

#### Year 1

**Semester 1**
- **ENGG1500**: Introduction to Professional Engineering  
- **ENGG1003**: Introduction to Procedural Programming  
- **MATH120**: Mathematics for Engineering, Science and Technology 2  
- **ELEC2320**: Electrical and Electronic Circuits
  
**Semester 2**
- **PHYS1220**: Advanced Physics II  
- **ELEC2430**: Circuits and Signals  
- **MATH2310**: Calculus of Science and Engineering  
- **STAT2110**: Engineering Statistics

#### Year 2

**Semester 1**
- **ENGG2500**: Sustainable Engineering Practice  
- **ELEC2720**: Introduction to Embedded Computing  
- **SCIE1001**: Professional Scientific Thinking  
- **SCIE1002**: Multidisciplinary Laboratories
  
**Semester 2**
- **ELEC2132**: Electric Energy Systems  
- **ENGG2440**: Modelling and Control  
- **SCIE2002**: Interdisciplinary Challenges  
- **PHYS2112**: Classical Physics 2

#### Year 3

**Semester 1**
- **ENGG3500**: Managing Engineering Projects  
- **ELEC3130**: Electric Machines and Power Systems  
- **PHYS2111**: Classical Physics 1  
- **ELECTIVE**:

**Semester 2**
- **ELEC3850**: Electrical Engineering Design and Practice  
- **ELEC3540**: Analog and Digital Communications  
- **ELEC3240**: Analog Electronics  
- **MATH3242**: Complex Analysis

#### Year 4

**Semester 1**
- **ENGG3440**: Linear Control and Estimation  
- **PHYS2211**: Modern Physics 1  
- **DIRECTED**: Electrical & Electronic  
- **ELECTIVE**:

**Semester 2**
- **ELEC4840A**: Final Year Engineering Project Part A  
- **ENGG4500**: Engineering Complexity  
- **PHYS3211**: Quantum Information Science  
- **DIRECTED**: Electrical & Electronic

#### Year 5

**Semester 1**
- **ELEC4840B**: Final Year Engineering Project Part B  
- **PHYS3112**: Photonics  
- **PHYS3111**: Biophysics  
- **DIRECTED**:

**Semester 2**
- **DIRECTED**:

#### Year 6

- **DIRECTED**:

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**YEAR 6**

**Semester 1**
- **DIRECTED**:

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**YEAR 7**

**Semester 1**
- **DIRECTED**:

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**YEAR 8**

**Semester 1**
- **DIRECTED**:

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**YEAR 9**

**Semester 1**
- **DIRECTED**:

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**YEAR 10**

**Semester 1**
- **DIRECTED**:

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**YEAR 11**

**Semester 1**
- **DIRECTED**:

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**YEAR 12**

**Semester 1**
- **DIRECTED**:

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**YEAR 13**

**Semester 1**
- **DIRECTED**:

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**YEAR 14**

**Semester 1**
- **DIRECTED**:

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**YEAR 15**

**Semester 1**
- **DIRECTED**:

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**YEAR 16**

**Semester 1**
- **DIRECTED**:

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To be eligible to graduate make sure you have completed 400 units (10 units = 1 course unless otherwise specified) which meet the following criteria:

- Core and Compulsory courses – 360 units
- Directed courses – 20 units
- Electives – 20 units, visit the Program Handbook for more information
- It is also a requirement that students complete a total of 12 weeks of industrial experience.
- The duration of this program is 5 years full-time (40 units per semester) or part-time equivalent.
- The maximum time to complete this program is 12 years.
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<thead>
<tr>
<th>DIRECTED COURSES</th>
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<tbody>
<tr>
<td><strong>PHYSICS MAJOR</strong></td>
<td><strong>ELECTRICAL &amp; ELECTRONIC ENGINEERING</strong></td>
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<tr>
<td>Complete 10 units from:</td>
<td>Complete 20 units from:</td>
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<tr>
<td>MATH3242: Complex Analysis</td>
<td>ELEC3160: Principles and Design of Off-Grid Power Systems</td>
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