Note:
1. This guide is only available to students who are enrolled in the Chemical and Process Engineering program within the Bachelor of Engineering component of the Bachelor of Engineering and Bachelor of Economics (61190) combined degree course prior to 2012.
2. Students enrolled in the Chemical and Process Engineering program must complete either, the Chemical and Process Engineering major (MJ-ECHEM) or the Hydrocarbon Processing major (MJ-EHCPR).

Course details

Course Credit Points:
Bachelor of Engineering component - 168 points
Bachelor of Economics component - 84-90 points
Total required for this course - 252-258 points

Students must complete the following:

- Bachelor of Engineering foundation core units - 36 points;
- all units in Table 6.2.2Ba (Chemical and Process Engineering core units) - 102 points;
- one unit from Group A in Table 6.2.2Bb (Chemical and Process Engineering options) – 6 points;
- one of the following majors: the Chemical Engineering major (MJ-ECHEM) or the Hydrocarbon Processing major (MJ-EHCPR) – 24 points;
- a professional practicum of at least 12 weeks; and
- a Bachelor of Economics component - 84-90 points

The following table is intended as a guide only. All units have a value of 6 points unless noted otherwise. Unit availability may be subject to change. For the most up-to-date information, please consult the Timetable at http://www.timetable.uwa.edu.au/
### Semester One

**Year One**
- **MATH1020** Calculus, Statistics and Probability *(no longer offered)*
- **PHYS1001** Physics for Scientists and Engineers *(replaces PHYS1101 Advanced Physics A)*
- **GENG1001** Introduction to Engineering Mechanics *(Note 2)*

**Economics unit**

**Year Two**
- **MATH2040** Engineering Mathematics *(Note 3)*
- **CHEM1001** Chemistry - Properties and Energetics
- **Economics unit**

**Year Three**
- **ENSC3003** Fluid Mechanics *(replaces CHPR2433 Fluid Mechanics)*
- **ENSC3006** Chemical Process: Thermodynamics & Kinetics *(replaces CHPR2431 Chem. Eng. Thermodynamics 2)*

**Economics unit**

### Semester Two

**Year One**
- **MATH1010** Calculus and Linear Algebra *(no longer offered)*
- **ENSC1001** Global Challenges in Engineering *(replaces ENSC1001 Engineering Challenges in a Global World or GENG1003 Introduction to Professional Engineering)*
- **GENG1002** Introd. to EE Engineering *(Note 2)*

**Economics unit**

**Year Two**
- **ENSC1002** Material Behaviour from Atoms to Bridges *(replaces MATE1412 Materials Engineering 1)*
- **CHEM1002** Chemistry - Structure and Reactivity
- **CITS2401** Computer Analysis and Visualisation *(replaces GENG2140 Mod. & Comp.Analy.for Eng.)*

**Economics unit**

**Year Three**
- **ENSC3009** Mass and Energy Balances *(replaces CHPR2530 Process Fundamentals)*
- **ENSC3007** Heat and Mass Transfer *(replaces CHPR2432 Heat and Mass Transfer)*
- **GENG4402** Control Engineering *(replaces CHPR3433 Process Dynamics and Control)*

**Economics unit**

### Year Four
- **CHPR4406** Reaction Engineering *(replaces CHPR3432 Chemical Kinetics and Reactor Design)*
- **GENG5505** Project Management and Engineering Practice *(Group A option)*
- **BE Major unit**

**Economics unit**

### Year Five
- **CHPR5551** Chemical Engineering Design Project 1 *(replaces CHPR4401 Chemical Eng. Design Proj. Pt 1)*
- **CHPR4411** Chemical and Processing Eng. Project Part 1
- **BE Major unit**

**Economics unit**

### Year Six
- Economics or BE Major unit
- **Economics unit**
- **Economics unit (if required)**

**Note 1:** Students requiring GENG1001 must complete ENSC2001 Motion and ENSC1002 Materials Behaviour from Atoms to Bridges.

**Note 2:** No longer offered, completed ENSC2002 Energy if required.

**Note 3:** Students requiring MATH2040 must complete MATH1002 Mathematical Methods 2.
### Bachelor of Engineering component

#### Table 6.2.2Bb—Chemical and Process Engineering options

**Group A**

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>S1, S2</td>
<td>GENG5505</td>
<td>Project Management and Engineering Practice <em>(replaces ELEC4332 Project Engineering Practice)</em></td>
</tr>
<tr>
<td>N/A</td>
<td>MECH4400</td>
<td>Engineering for Sustainable Development <em>(no longer offered)</em></td>
</tr>
</tbody>
</table>

**MAJORS**

- **Chemical Engineering major (MJ-ECHEM)** - The Chemical Engineering major comprises:
  
  1. **all** units in Table 6.2.2Bc (Chemical Engineering major core units) below – 18 points

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>N/S</td>
<td>CHPR4404</td>
<td>Advanced Thermodynamics <em>(replaces CHPR4531 Advanced Prediction of Fluid Properties)</em></td>
</tr>
<tr>
<td>N/S</td>
<td>CHPR5522</td>
<td>Gas Processing 2 - Treating and LNG Production <em>(replaces GENG4405 Numerical Methods and Modelling or CHPR3531 Process Modelling)</em></td>
</tr>
<tr>
<td>S1</td>
<td>CHPR5501</td>
<td>Advanced Reaction Engineering and Catalysts <em>(replaces CHPR4431 Advanced Reaction Engineering)</em></td>
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</tbody>
</table>

  2. **one** unit from Table 6.2.2Bd (Chemical Engineering major options) below – 6 points

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<tbody>
<tr>
<td>S2</td>
<td>CHEM2002</td>
<td>Physical and Analytical Chemistry <em>(replaces CHEM2220 Analytical and Physical Chemistry)</em></td>
</tr>
<tr>
<td>N/S</td>
<td>ELEC5506</td>
<td>Process Instrumentation and Control <em>(replaces ELEC3320 Process Instrumentation and Control)</em></td>
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</tbody>
</table>

- **Hydrocarbon Processing major (MJ-EHCPR)** - The Hydrocarbon Processing major comprises:
  
  1. **all** units in Table 6.2.2Be (Hydrocarbon Processing major core units) below – 18 points

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<tbody>
<tr>
<td>N/S</td>
<td>CHPR4404</td>
<td>Advanced Thermodynamics <em>(replaces CHPR4531 Advanced Prediction of Fluid Properties)</em></td>
</tr>
<tr>
<td>N/S</td>
<td>CHPR5522</td>
<td>Gas Processing 2 - Treating and LNG Production <em>(replaces GENG4405 Numerical Methods and Modelling or CHPR3531 Process Modelling)</em></td>
</tr>
<tr>
<td>S2</td>
<td>ENSC3018</td>
<td>Process Synthesis and Design <em>(replaces CHPR4530 Process Systems)</em></td>
</tr>
</tbody>
</table>

  2. **one** unit from Table 6.2.2Bf (Hydrocarbon Processing major options) below – 6 points

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<tbody>
<tr>
<td>N/S</td>
<td>ELEC5506</td>
<td>Process Instrumentation and Control <em>(replaces ELEC3320 Process Instrumentation and Control)</em></td>
</tr>
<tr>
<td>S2</td>
<td>GENG5504</td>
<td>Petroleum Engineering <em>(replaces PETR2510 Petroleum Engineering Fundamentals)</em></td>
</tr>
</tbody>
</table>

**Key to availability of units:**

- **S1** = Semester one
- **S2** = Semester two
- **N/S** = Non-standard Teaching Period, refer to handbook for details.
- **N/A** = Not available in 2015