# 62550 MASTER OF PROFESSIONAL ENGINEERING (MPE)  
CHEMICAL ENGINEERING (SP-ECHEM)

## 2.5 Year Course Study Guide – Commencing Semester 1, 2019

The Level 1, 2 and 3 prerequisites listed below apply to students undertaking preparatory units in the 2 – 3 year MPE. Students enrolling in the 2-year MPE with 48 points block credit have already satisfied the Level 1, 2 and 3 prerequisites. Level 4 and 5 prerequisites apply to all students.

<table>
<thead>
<tr>
<th>Year 1</th>
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</thead>
</table>
| **Semester 1, 2019** | **CHPR4404** Advanced Thermodynamics  
Prereq: ENSC3005 & ENSC3006. Coreq: CHPR5521 | **CHPR4405** Particle Mechanics and Solids Handling  
Prereq: ENSC3003 & ENSC3005  
Coreq: ENSC3007 | **GENG5505**  
Project Management and Engineering Practice  
Prereq: ENSC1001 | [OPTION] |                          |
| **Semester 2, 2019** | **ENSC3018** Process Synthesis and Design  
Prereq: ENSC3005 & ENSC3007 | **ENSC3019** Unit Operations and Unit Processes  
Prereq: ENSC3005 & ENSC3007. Coreq: ENSC3006 | **CHPR4406**  
Reaction Engineering  
Prereq: ENSC3006 | **GENG4402**  
Control Engineering  
Prereq: MATH1001 & ENSC2001 | [OPTION] |
| **Year 2** | It is recommended students undertake some practical work experience during the summer break to satisfy the GENG5010 Professional Engineering Portfolio | | | | |
| **Semester 1, 2020** | **CHPR5501**  
Advanced Reaction Engineering and Catalysts  
Prereq: CHPR4406 | **GENG5507**  
Risk, Reliability and Safety  
Prereq: MATH1001 & MATH1002 | [OPTION] | [OPTION] | |
| **Semester 2, 2020** | **GENG5511**  
Engineering Research Project Part 1  
Prereq: completion of 24 pts of L4/L5 units | **CHPR5551**  
Chemical Engineering Design Project 1  
Prereq: CHPR4406.  
Prereq: ENSC3018 & ENSC3019 | **CHPR5552**  
Chemical Engineering Design Project 2  
Coreq: CHPR5551 | **CHPR4407**  
Transport Phenomena  
Prereq: ENSC3003 & ENSC3007 | [OPTION] |
| **Year 2.5** | It is recommended students undertake some practical work experience during the summer break to satisfy the GENG5010 Professional Engineering Portfolio | | | | |
| **Semester 1, 2021** | **GENG5512**  
Engineering Research Project Part 2  
Prereq: GENG5511 | [OPTION] | | | |

◆ = Unit offered in Semester 1 and Semester 2  
★ = Unique unit
### OPTIONAL UNITS
Students take two units to the value of 12 points from this group:

#### Group A
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Prereq</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHPR5520</td>
<td>Combustion Science and Technology (NS)</td>
<td>Prereq: CHPR4406, ENSC3006</td>
</tr>
<tr>
<td>CHPR5521</td>
<td>Gas Processing – Flow Assurance and Gathering (S1)</td>
<td>Coreq: CHPR4404</td>
</tr>
<tr>
<td>CHPR5522</td>
<td>Gas Processing 2 – Treating and LNG Production (S2)</td>
<td>Prereq: CHPR4404</td>
</tr>
</tbody>
</table>

NS = Non-standing teaching periods: CHPR5520: TS-L-3 = 29 July – 20 September 2019

#### Group B
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Prereq</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMEG4002</td>
<td>Biomaterials (NA 2019)</td>
<td></td>
</tr>
<tr>
<td>BMEG4003</td>
<td>Cardiovascular Biomechanics (NA 2019)</td>
<td>Prereq: PHYL2002, ENSC3023</td>
</tr>
<tr>
<td>ENVE4401</td>
<td>Contaminant Fate and Transport (S2)</td>
<td>Prereq: ENSC3003, &amp; ENSC3006</td>
</tr>
<tr>
<td>GENG4403</td>
<td>Extractive Metallurgy (S1)</td>
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</tr>
<tr>
<td>GENG4407</td>
<td>Advanced Engineering Mathematics (S1)</td>
<td>Prereq: MATH1002</td>
</tr>
<tr>
<td>GENG5503</td>
<td>Modern Control Systems (S1)</td>
<td>Prereq: GENG4402</td>
</tr>
<tr>
<td>GENG5504</td>
<td>Petroleum Engineering (S2)</td>
<td>Prereq: ENSC3003</td>
</tr>
<tr>
<td>GENG5506</td>
<td>Renewable Energy (S2)</td>
<td>Prereq: ENSC2002 &amp; MATH1002</td>
</tr>
<tr>
<td>SVLG5003</td>
<td>Wicked Problems (SUM)</td>
<td>Enrolment in this unit is subject to approval by the unit coordinators.</td>
</tr>
</tbody>
</table>

SUM = Summer teaching period: SVLG5003: 21 Jan – 15 Feb 2019

**NOTE:** Students are required to complete at least 450 hours of practical experience. For more information refer to: [ems.uwa.edu.au/professional-practicum](http://ems.uwa.edu.au/professional-practicum)

Note: Units that are indicated as N/A may be available in 2020 or 2021.

More information on Intensive Mode Learning (IML) in the non-standard teaching period can be found at: [ems-students/IML](http://ems-students/IML)

If you need to discuss your study plan further, please contact the EMS Student Office at [enquiries-ems@uwa.edu.au](mailto:enquiries-ems@uwa.edu.au)

*Information in this study guide is correct as at 19 November 2018, but is subject to change from time to time. In particular, the University reserves the right to change the unit availability and unit rules. Information about unit availability should be checked at the beginning of each semester and can be found at Timetables: [timetable.uwa.edu.au](http://timetable.uwa.edu.au) or Handbooks: [handbook.uwa.edu.au](http://handbook.uwa.edu.au). The Rules for the Master of professional Engineering can be found at: [handbook.uwa.edu.au/courses/MPE/rules](http://handbook.uwa.edu.au/courses/MPE/rules).*