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| **Year 1** | | | | |
| *Students must complete* ***GENG1000 Engineering Practice 1*** *within their first year (0 points = 1 week module)* | | | | |
| Semester 2,  2025 | **MATH1011\*\***  Multivariable Calculus  ***Prereq: Math Specialist ATAR or MATH1722*** | **CHEM1001\*\***  Chemistry—Properties and Energetics  ***Prereq: Chemistry ATAR or CHEM1003*** | **CHPR1005**  Mass and Energy Balances  ***Prereq: (Chem ATAR or CHEM1003) & (Maths Methods ATAR or MATH1721)*** | **GENG1010\*\***  Introduction to Engineering |
| Semester 1,  2026 | **MATH1012\*\***  Mathematical Theory & Methods  ***Prereq: Math Specialist ATAR or MATH1722*** | **CHEM1002**\*\*  Chemistry – Structure and Reactivity  ***Prereq: Chemistry ATAR or CHEM1003*** | **PHYS1001\*\***  Physics for Scientists & Engineers  ***Prereq: (Physics ATAR or PHYS1030) &***  ***(Math Methods ATAR or MATH1721)***  ***Coreq: MATH1722*** | **CHPR2006**  Chemical Engineering Thermodynamics  ***Prereq: CHEM1001 & CHPR1005 & MATH1011*** |
| **Year 2** | | | | |
| Students must complete **GENG2000 Engineering Practice 2** within their second year (0 points = 1 week module) | | | | |
| Semester 2,  2026 | **CHPR2007**  Heat and Mass Transfer  ***Prereq: CHPR1005 & MATH1011***  ***APS: GENG2003*** | **CHPR3406**  Reaction Engineering  ***Prereq: CHPR2006*** | **CHPR2018**  Process Synthesis and Design 1  ***Prereq: CHPR1005*** | **ENSC1004**  Engineering Materials  ***Prereq: (Chem ATAR or CHEM1003) &***  ***(Maths Methods ATAR or MATH1721) &***  ***(Phys ATAR or PHYS1030)*** |
| Semester 1,  2027 | **GENG2003**  Fluid Mechanics  ***Prereq: MATH1011 & MATH1012 & PHYS1001*** | **CITS2401\*\***  Computer Analysis & Visualisation  ***Prereq: Math Methods ATAR or MATH1721*** | Broadening | Broadening |
| **Year 3** | | | | |
| Students must complete **GENG3000 Engineering Practice** 3 within their third year (0 points = 1 week module) | | | | |
| Semester 2,  2027 | **CHPR3407**  Transport Phenomena  ***Prereq: GENG2003 & (CHPR2007*** **or MECH3024)** | **GENG3402**  Control Engineering  ***Prereq: MATH1011 & MATH1012*** | **CHPR3018**  Process Synthesis and Design 2  ***Prereq: GENG2000 & CHPR2018 Coreq: CHPR3019*** | **CHPR3019**  Unit Operations  ***Prereq: GENG2003 & CHPR2006 & CHPR2007*** |
| Semester 1,  2028 | **CHPR3404**  Advanced Thermodynamics & Transfer Processes  ***Prereq: CHPR2007 & CHPR2006 & MATH1012*** | **#CHPR4501**  Advanced Reaction Engineering & Catalysts  ***Prereq: CHPR3406 & CHPR2007*** | **CHPR3405**  Particle Technology  ***Prereq: GENG2003*** | **#Chemical Engineering Option 1** |
| **Year 4** | | | | |
| Students must undertake practical work experience during the course to satisfy **GENG5010 Professional Engineering Portfolio** (0 points) – *see notes below*  *Students must achieve a WAM of at least 50 in order to progress to the fourth (Honours) year – see BE(Hons) rules* | | | | |
| Semester 2,  2028 | **#GENG4411\*\***  Engineering Research Project Pt 1  ***Prereq: 144 pts incl. 24 pts Level 3 units in major & GENG3000*** | **#GENG5507\*\***  Risk, Reliability & Safety  ***Prereq: 120pts incl. MATH1011 & MATH1012*** | **#Chemical Engineering Option 2** | **#Chemical Engineering Option 3** |
| Semester 1,  2029 | **#GENG4412\*\***  Engineering Research Project Pt 2  ***Prereq: GENG4411***  ***(taken in semester after GENG4411)*** | **#CHPR5550**  Chemical Engineering Design Project  (12 pts)  ***Prereq: CHPR3018 & CHPR3019 & CHPR3406 & GENG3000*** | | **#Chemical Engineering Option 4** |
| Students must pass all credit bearing and 0-pt units to be eligible to graduate | | | | |

**\*\*** Offered in both semesters

#All Level 4/5 engineering units also have a WAM prerequisite. See notes on next page.

**CHEMICAL ENGINEERING OPTION UNITS**

Take unit(s) to a total value of 24 points, comprising a minimum of 12 points from Group A and the balance from Group B.

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| **Group A Options** | **Group B Options** |
| **CHPR4408** Chemical and Thermal Renewable Energies (S1)  ***Prereq: 96 pts*** | **CITS4009** Computational Data Analysis (S2)  ***Prereq: 96 pts*** |
| **CHPR4409** Mineral Processing: Current and Future Technologies (S1)  ***Prereq: CHPR2018*** | **ELEC5506** Process Instrumentation and Control (S1)  ***Prereq: 120 pts incl. GENG3402***  ***APS: ENSC2003*** |
| **CHPR5520** Combustion Science and Technology (NS)  ***Prereq: 120 pts incl. (CHPR2006 or MECH3024)*** | **ENVE4401** Transport Processes in the Environment (S2)  ***Prereq: 96 pts incl. (GENG2003 or GENG2010)*** |
| **CHPR5521** Gas Processing 1 (S1)  ***Prereq: 120 pts incl. CHPR3404*** | **GENG4403** Extractive Metallurgy (S1)  ***Prereq: 96 pts incl. (ENSC1004 or MINE2001)*** |
| **CHPR5522** Gas Processing 2 (S2)  ***Prereq: 120 pts incl. CHPR3404*** | **GENG4410** Fossil to Future – The Transition (S2)  ***Prereq: 96 pts*** |
| **ENVE5502** Water and Wastewater Engineering (S2)  ***Prereq: 120 pts incl. (GENG2003 or GENG2010)***  *Unit has a quota. Check Handbook for details.* | **GENG5504** Petroleum Engineering (S2)  ***Prereq: 120 pts incl. GENG2003*** |
| **GENG5516** Energy Storage Systems (S1)  ***Prereq: 120 pts incl. CHPR2006 or MECH3024*** | **GENG5506** Renewable Energy (S2)  ***Prereq: 120 pts incl. ENSC2003 and MATH1012*** |

* The Rules for the BH011 Bachelor of Engineering (Honours) can be [**found here**](https://handbooks.uwa.edu.au/coursedetails?code=BH011#rules)**.**
* All units have a value of **six points** unless otherwise stated.
* Information about unit availability should be checked at the beginning of each semester and can be found in the [**Handbook**](https://handbooks.uwa.edu.au/).
* All students must complete GENG1000, GENG2000 & GENG3000 Engineering Practice Skills modules (0 points = 3 x 1-week modules). Check Handbook for prerequisites.
* All students must complete the Professional Engineering Practicum and GENG5010 Professional Eng. Portfolio (0 points). Details are available on the *LMS Organisation EMS Student Experience.*
* Students must maintain a WAM of at least 50 in the BE(Hons). This is required to enrol in Level 4/5 BE(Hons) units.

**Further Help**

If you need to discuss your study plan further, please contact the [**EMS Student Office**](https://www.uwa.edu.au/students/my-course/study-areas/ems-students)**.**