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| **Year 1** |
| *Students must complete* ***GENG1000 Engineering Practice 1*** *within their first year (0 points = 1 week module)* |
| Semester 1,2025 | **MATH1011\*\*** Multivariable Calculus***Prereq: Math Specialist ATAR or MATH1722*** | **CITS2401\*\*** Computer Analysis & Visualisation***Prereq: Math Methods ATAR or MATH1721*** | **CHEM1001\*\*** Chemistry—Properties and Energetics ***Prereq: Chemistry ATAR or CHEM1003*** | **GENG1010\*\***Introduction to Engineering |
| Semester 2,2025 | **MATH1012\*\*** Mathematical Theory & Methods***Prereq: Math Specialist ATAR or MATH1722*** | **ENSC1004**Engineering Materials***Prereq: (Chem ATAR or CHEM1003) &*** ***(Maths Methods ATAR or MATH1721) &*** ***(Phys ATAR or PHYS1030)*** | **PHYS1001\*\*** Physics for Scientists & Engineers***Prereq: (Physics ATAR or PHYS1030) &*** ***(Math Methods ATAR or MATH1721)******Coreq: MATH1722*** | **CHPR1005**Mass and Energy Balances***Prereq: (Chem ATAR or CHEM1003) &*** ***(Maths Methods ATAR or MATH1721)*** |
| **Year 2** |
| Students must complete **GENG2000 Engineering Practice 2** within their second year (0 points = 1 week module) |
| Semester 1,2026 | **GENG2003** Fluid Mechanics***Prereq: MATH1011 & MATH1012 & PHYS1001*** | **CHPR2006** Chemical Engineering Thermodynamics ***Prereq: CHEM1001 & CHPR1005 & MATH1011*** | **CHEM1002**\*\* Chemistry – Structure and Reactivity***Prereq: Chemistry ATAR or CHEM1003*** | Broadening  |
| Semester 2,2026 | **CHPR2007** Heat and Mass Transfer***Prereq: CHPR1005 & MATH1011*** | **CHPR3406**Reaction Engineering***Prereq: CHPR2006*** | **CHPR2018**Process Synthesis and Design 1***Prereq: CHPR1005*** | Broadening |
| **Year 3** |
| Students must complete **GENG3000 Engineering Practice** 3 within their third year (0 points = 1 week module) |
| Semester 1,2027 | **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** |
| 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: CHPR301*** | **CHPR3019** Unit Operations***Prereq: GENG2003 & CHPR2006 & CHPR2007*** |
| **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 1,2028 | **#GENG4411\*\*** Engineering Research Project Pt 1***Prereq: 144 points incl. 24 points Level 3 units in major & GENG3000*** | **#CHPR5550** Chemical Engineering Design Project (12 pts)***Prereq: CHPR3018 & CHPR3019 & CHPR3406 & GENG3000***  | **#Chemical Engineering Option 2** |
| Semester 2,2028 | **#GENG4412\*\*** Engineering Research Project Pt 2***Prereq: GENG4411******(taken in semester after GENG4411)*** | **#GENG5507\*\*** Risk, Reliability & Safety***Prereq: 120pts incl. MATH1011 & MATH1012*** | **#Chemical Engineering Option 3** | **#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)**.**