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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*** | **PHYS1001\*\***  Physics for Scientists & Engineers  ***Prereq: (Physics ATAR or PHYS1030) & (Math Methods ATAR or MATH1721); Coreq: MATH1722*** | **CITS2401\*\***  Computer Analysis & Visualisation ***Prereq: Math Methods ATAR or MATH1721*** | **GENG1010\*\***  Introduction to Engineering |
| Semester 2,  2025 | **MATH1012\*\***  Mathematical Theory & Methods  ***Prereq: Math Specialist ATAR or MATH1722*** | **ENSC2004\*\***  Engineering Mechanics  ***Prereq: (Phys ATAR or PHYS1030) &***  ***(Math Specialist ATAR or MATH1722)***  ***Coreq: MATH1011***  ***APS: PHYS1001 and MATH1011*** | **GENG1014**  Earth Systems Engineering | Broadening |
| **Year 2** | | | | |
| Students must complete **GENG2000 Engineering Practice 2** within their second year (0 points = 1 week module) | | | | |
| Semester 1,  2026 | **GENG2004**  Solid Mechanics  ***Prereq: ENSC2004 & MATH1011 & MATH1012*** | **CIVL2551**  Civil Engineering Practice  ***APS: MATH1011*** | **GENG2009**  Principles of Geomechanics  ***Prereq: MATH1011& MATH1012 & PHYS1001*** | Broadening |
| Semester 2,  2026 | **CIVL2008**  Structural Analysis  ***Prereq: ENSC2004 and MATH1011*** | **GENG2010**  Principles of Hydraulics  ***Prereq: MATH1011 & MATH1012*** | **GENG2012**  Data Collection & Analysis  ***Prereq CITS2401 & MATH1012*** | Broadening |
| **Year 3** | | | | |
| Students must complete **GENG3000 Engineering Practice** 3 within their third year (0 points = 1 week module) | | | | |
| Semester 1,  2027 | **CIVL3404**  Structural Steel Design  ***Prereq: GENG2004*** | **CIVL3402**  Hydraulics for Civil Engineers  ***Prereq: GENG2010 or GENG2003*** | **CIVL3401**  Applied Geomechanics  ***Prereq: GENG2009*** | Broadening |
| Semester 2,  2027 | **CIVL3403**  Structural Concrete Design  ***Prereq: GENG1000 & GENG2004*** | **GENG3405**  Numerical Methods & Modelling  ***Prereq: MATH1012 & CITS2401*** | **#CIVL4430**  Transportation and Pavement Engineering  ***Prereq: 96 pts inc. MATH1011 & CITS2401*** | **#Civil Engineering**  **Group B Option** |
| **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 pts incl. 24 pts Level 3 units in major & GENG3000*** | **^#Group A Option CIVL5550**  Civil Infrastructure Design Project  ***Prereq: 120 pts incl. GENG3000 and CIVL4430***  ***APS: GENG2009***  **OR Civil Eng Group B Option** | **#GENG5505\*\***  Project Management & Engineering Practice  ***Prereq: 120 pts*** | **#Civil Engineering**  **Group B Option** |
| Semester 2,  2028 | **#GENG4412\*\***  Engineering Research Project Pt 2  ***Prereq: GENG4411***  ***(taken in semester after GENG4411)*** | **^#Group A Option CIVL5552**  Civil Structural Design Project  ***Prereq: 120 pts incl. GENG3000 and CIVL3404***  ***APS: CIVL2008***  **OR Civil Eng Group B Option** | **#GENG5507\*\***  Risk, Reliability & Safety  ***Prereq: 120 pts incl. MATH1011 & MATH1012*** | **#Civil Engineering**  **Group B Option** |
| Students must pass all credit bearing and 0-pt units to be eligible to graduate | | | | |

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

**^Group A Option:** Students must take either CIVL5550 or CIVL5552 or both. Students who take only one design project from Group A must select four units from Group B~~.~~

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

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| **Group A Options: Take 6 – 12 pts** Students must take at least **one** unit from Group A. | **Group B Options: Take 18 – 24 pts** Students who take **one** unit from Group A must select **four** units from Group B. Student who take **both** units in Group A must select **three** units from Group B. |
| **CIVL5550** Civil Infrastructure Design Project (S1)  ***Prereq: 120 pts incl. GENG3000 and CIVL4430***  ***APS: GENG2009*** | **CIVL5501** Structural Dynamics (S2)  ***Prereq: 120 pts incl. GENG2004*** |
| **CIVL5552** Civil Structural Design Project (S2)  ***Prereq: 120 pts incl. GENG3000 and CIVL3404***  ***APS: CIVL2008*** | **CIVL5503** Underground Construction (S1)  ***Prereq: 120 pts inc. CIVL3401*** |
|  | **CIVL5505** Design of Offshore Energy Facilities (S2)  ***Prereq: 120 pts incl. GENG3000 & CIVL3404*** |
|  | **ENVE3402** Engineering Hydrology (S1)  ***Prereq: GENG1014*** |
|  | **GENG5501** Coastal and Offshore Engineering (S1)  ***Prereq: 120 pts incl. (GENG2003 or GENG2010)*** |
|  | **GENG5502** Environmental Geotechnics(S2)  ***Prereq: 120 pts incl. GENG2009*** |
|  | **GENG5514** Finite Element Method (S1)  ***Prereq: 120 pts incl. (GENG2003 or GENG2010) & GENG2004 & GENG3405*** |

* 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)**.**