



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

# Master of Civil Engineering (Professional)



## Master of Civil Engineering (Professional) - Study Plan

This study plan is a guide only for students commencing the Master of Civil Engineering (Professional) in 2023. Please note that all course selections must adhere to the [program course list](#) outlined at UQ Courses and Programs. If you have any questions or concerns regarding your course selections, please speak with an [Academic Advisor](#) in the School of Civil Engineering.

6 units for all MCivilEng(Prof) Core Courses, and  
 4 to 8 units from MCivilEng(Prof) Research Project Courses, and  
 10 units for MCivilEng(Prof) Advanced Undergraduate Electives Courses, and  
 8 to 12 units for MCivilEng(Prof) Postgraduate Elective Courses

CIVL7515 (#4 units) may be taken over one semester

CIVL7500 (#8 units) may be taken in lieu of CIVL7513 and two electives.

Please see page 3 for Advanced Undergraduate Elective Courses, and Postgraduate Elective Courses

### February 2023 Commencement

| SEM                                 | YEAR 1   |  |          |          |
|-------------------------------------|--|--|----------|----------|
| Sem 1<br>Feb                        | <a href="#">ENGG7901</a><br>Professional engineering & business environment: Global practice | Elective   | Elective | Elective |
| Sem 2<br>July                       | <a href="#">ENGG7902</a><br>Engineering innovation and leadership                            | <a href="#">CIVL7505</a><br>Research methods for civil engineers | Elective | Elective |
| SEM                                 | YEAR 2   |  |          |          |
| Sem 3<br>Feb                        | <a href="#">CIVL7513</a><br>Research Project   | Elective   | Elective | Elective |
| Sem 4<br>July                       |  | Elective   | Elective | Elective |
| Enrol in CIVL7513 in both semesters |  |  |          |          |

### July 2023 Commencement

| SEM                                 | YEAR 1   |  |          |          |
|-------------------------------------|--|--|----------|----------|
| Sem 1<br>July                       | <a href="#">ENGG7902</a><br>Engineering innovation and leadership                            | <a href="#">CIVL7505</a><br>Research methods for civil engineers | Elective | Elective |
| Sem 2<br>Feb                        | <a href="#">ENGG7901</a><br>Professional engineering & business environment: Global practice | Elective   | Elective | Elective |
| SEM                                 | YEAR 2   |  |          |          |
| Sem 3<br>July                       | <a href="#">CIVL7514</a><br>Research Project   | Elective   | Elective | Elective |
| Sem 4<br>Feb                        |  | Elective   | Elective | Elective |
| Enrol in CIVL7514 in both semesters |  |  |          |          |

| Course Code   | Course Title  | Sem | Notes                          |
|---|---|-----|--------------------------------|
| <b>Advanced Undergraduate Elective Courses</b>              |   |     |                                |
| <b>Water and Environment Elective Courses</b>               |   |     |                                |
| CIVL4145  | Groundwater Modelling and Management                          | 2   |                                |
| CIVL4170  | Environmental Risk Assessment and Management                  | 1   |                                |
| CIVL6111  | Ocean, Coastal and Estuarine Engineering                      | 2   |                                |
| CIVL6112  | Hydro and Marine Power Renewable Energy Systems               | 2   |                                |
| CIVL6121  | Environmental Hydraulics and Flood Management                 | 1   |                                |
| <b>Geotechnical Elective Courses</b>                        |   |     |                                |
| CIVL4230  | Advanced Soil Mechanics                                       | 1   |                                |
| CIVL4270  | Geotechnical Investigation                                    | 1   |                                |
| CIVL4280  | Applied Rock Mechanics  | 2   |                                |
| CIVL6220  | Tailings Design   | 1   |                                |
| <b>Structures Elective Courses</b>                          |   |     |                                |
| CIVL4333  | Advanced Concrete Design                                      | 1   |                                |
| CIVL4334  | Design of Timber Structures                                   | 2   |                                |
| CIVL6360  | Advanced Structural Analysis                                  | 2   |                                |
| <b>Transportation Elective Courses</b>                      |   |     |                                |
| CIVL4450  | Traffic Flow Theory and Emerging Technologies                 | 2   |                                |
| CIVL4460  | Highway Geometric Design                                      | 2   |                                |
| <b>Fire Safety Elective Courses</b>                         |   |     |                                |
| FIRE3700  | Introduction to Fire Safety Engineering                       | 1   |                                |
| FIRE4610  | Fire Engineering Design: Solutions for Implicit Safety        | 1   |                                |
| <b>Civil Engineering Interdisciplinary Elective Courses</b> |   |     |                                |
| CIVL4340  | Wind Engineering  | 1   |                                |
| CIVL4522  | Analytical Methods for the Design of Construction Operations  | 2   |                                |
| <b>Podtgraduate Elective Courses</b>                        |   |     |                                |
| <b>Water and Environment Elective Courses</b>               |   |     |                                |
| CIVL7131  | Urban Hydrology   | 1   |                                |
| <b>Geotechnical Elective Courses</b>                        |   |     |                                |
| CIVL6210  | Dam Engineering   | 2   |                                |
| CIVL6215  | Ground Improvement  | 1   |                                |
| CIVL6250  | Underground Structures  | 2   |                                |
| <b>Structures Elective Courses</b>                          |   |     |                                |
| CIVL7315  | Advanced Concrete Structures and Concrete Technology          | TBC | 2023 offerings to be confirmed |
| CIVL7360  | Computational Design and Digital Workflows                    | TBC | 2023 offerings to be confirmed |
| <b>Transportation Elective Courses</b>                      |   |     |                                |
| CIVL6415  | Traffic Analysis and Simulation                               | 2   |                                |
| CIVL7415  | Spatial and Quantitative Methods for Transport Data Analytics | 1   |                                |
| <b>Fire Safety Elective Courses</b>                         |   |     |                                |
| FIRE7620  | Fire Dynamics   | 2   |                                |
| FIRE7660  | Structural Fire Engineering                                   | 1   |                                |