

FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

CIVIL ENGINEERING

Master of Engineering in Civil Engineering
Master of Engineering in Civil and Environmental Engineering
Bachelor of Engineering with Honours in Civil Engineering
Bachelor of Engineering with Honours in Civil and Environmental Engineering
Bachelor of Engineering in Civil Engineering
Bachelor of Engineering in Civil and Environmental Engineering
Diploma of Higher Education in Civil Engineering
Certificate of Higher Education in Civil Engineering

These regulations are to be read in conjunction with [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.](#)

Mode of Study

1. The programmes are available by full-time study only.

Curriculum

2. **First Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CL132	Engineering Mechanics 1	1	20
CL134	Engineering Mechanics 2	1	20
CL114	Civil Engineering Design Projects	1	20
MM115	Mathematics 1D	1	20
CL137	Fundamentals of Civil Engineering	1	20
	Elective Module(s)		20

3. **Second Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CL207	Structural Mechanics and Materials 2	2	20
CL217	Soil Mechanics	2	20
CL209	Land Surveying and Mapping	2	20
CL218	Chemistry and Materials Science	2	20

CL216	Hydraulics and Hydrology	2	20
MM215	Mathematics 2D	2	20

4. **Third Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CL313	Structural Engineering 1	3	20
CL314	Geotechnical Engineering 1	3	20
CL315	Water Engineering 1	3	20
CL329	Engineering Mathematics	3	20
CL328	Environmental Engineering	3	10
CL330	Transport Engineering	3	10
CL305	Construction Project Management	3	10

Optional Modules

No fewer than 10 credits from the following:

Module Code	Module Title	Level	Credits
CL390	Engineering for Global Development	3	10
CL388	VIP – CEE Sem 1	3	10

5. **Fourth Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CL419	Geotechnical Engineering 2	4	20
CL420	Water Engineering 2	4	20
CL448	Individual Project	4	30

Civil Engineering

Module Code	Module Title	Level	Credits
CL418	Structural Engineering 2	4	20

CL435	Prestressed Concrete, Composite Materials and Structural Stability	4	10
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Civil and Environmental Engineering

Module Code	Module Title	Level	Credits
CL413	Solid Waste Management	4	10
CL439	Contaminated Land	4	10
CL447	Water and Wastewater Treatment Design	4	10

Optional Modules

No fewer than 20 credits from the following:

Module Code	Module Title	Level	Credits
CL436	Transport Planning	4	10
CL437	Project Analysis	4	10
CL418	Structural Engineering 2	4	20
CL435	Prestressed Concrete, Composite Materials and Structural Stability	4	10
CL413	Solid Waste Management	4	10
CL439	Contaminated Land	4	10
CL430	Principles of Environmental Microbiology	4	10
CL447	Water and Wastewater Treatment Design	4	10
CL446	Water and Environmental Management	4	10
CL444	VIP – CEE Sem 1	4	10
CL445	VIP – CEE Sem 2	4	10

Exceptionally, such other modules totalling no more than 20 credits at Level 4 as approved by the Programme Director.

Not all optional modules on this list will be available in each academic year.

6. **Fifth Year** - All students shall undertake modules amounting to no fewer than 120 credits (which must bring the total studied at Level 5 to no fewer than 120 credits appropriate to the chosen programme).

Compulsory Modules

Module Code	Module Title	Level	Credits
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CL518	Group Design Project A	5	20
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Civil Engineering

Optional Modules

No fewer than 100 credits chosen from Lists A, B, and C of which a minimum of 40 credits must be chosen from List A.

Civil and Environmental Engineering

Optional Modules

No fewer than 100 credits chosen from Lists A, B, and C of which a minimum of 20 credits must be chosen from List A and a minimum of 20 credits must be chosen from List B.

Optional Modules at Level 5

List A: Civil Engineering

Module Code	Module Title	Level	Credits
CL507	Ground Improvement and Reinforcement	5	10
CL906	Site Investigation and Risk Assessment	5	10
CL510	Advanced Structural Analysis and Design	5	10
CL514	Rock Mechanics, Tunnelling and Groundwater	5	10
CL516	MEng Dissertation	5	20
CL803	Geotechnics of Unsaturated Soils	5	10
CL991	Structural Health Monitoring	5	10
CL996	Materials and Microstructures	5	10
CL527	Structural Reliability Analysis and Design under Uncertainty	5	10

List B: Environmental Engineering

Module Code	Module Title	Level	Credits
CL904	Waste Management & Landfill Design	5	10
CL935	Hydrogeology	5	10
CL946	Global Water Policy	5	10
CL948	Principles of Environmental Microbiology	5	10
CL952	Aquifer Mechanics	5	10
CL954	Contaminated Land	5	10

CL960	Fundamentals of Environmental Forensics	5	10
CL961	Geographical Information Systems	5	10
CL970	Environmental Pollution Management	5	10
CL971	Air Pollution, Climate Change & Human Health	5	10
CL978	Water and Wastewater Treatment Design	5	10
CL994	Circular Economy and Transformations Towards Sustainability	5	10
EV921	Water and Environmental Management	5	10
EV939	Environmental Impact Assessment	5	10
CL521	VIP – CEE Sem 1	5	10
CL5xx	VIP – CEE Sem 2	5	10

List C: Engineering-Related

Module Code	Module Title	Level	Credits
AB991	Building Information Modelling	5	10
AB998	Advanced Construction Technologies	5	10
CL504	Financial Engineering	5	10
CL520	Engineering Challenges in Nuclear Decommissioning and Waste Disposal	5	10
CL523	The Construction Industry Client	5	10
NM833	Marine Renewable Energy Systems	5	10
L2967	City Systems and Infrastructure	5	10
ME927	Energy Resources and Policy	5	10

Exceptionally, such other modules totalling no more than 20 credits as approved by the Programme Director.

Not all optional modules in the above Lists A, B and C will be available in each academic year.

Progress

- In order to progress to the second year of the programme, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.](#)
- In order to progress to the third year of the programme, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.](#)

9. In order to progress to the fourth year of the programme, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
10. In order to progress to the fifth year of the programme, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).

Final Assessment and Classification

11. The final classification for the award of the chosen degree will normally be based on the first assessed attempt at compulsory and approved optional modules taken in years 3, 4 and 5.

Award

12. **MEng**: In order to qualify for the award of the degree of MEng in Civil Engineering or Civil and Environmental Engineering, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
13. **BEng with Honours**: In order to qualify for the award of the degree of BEng with Honours in Civil Engineering or Civil and Environmental Engineering, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#); and must include CL448 Individual Project.
14. **BEng**: In order to qualify for the award of the degree of BEng in Civil Engineering or Civil and Environmental Engineering, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
15. **Diploma of Higher Education**: In order to qualify for the award of a Diploma of Higher Education in Civil Engineering or Civil and Environmental Engineering, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
16. **Certificate of Higher Education**: In order to qualify for the award of a Certificate of Higher Education in Civil Engineering or Civil and Environmental Engineering, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).