

GLASGOW CALEDONIAN UNIVERSITY
Programme Specification Pro-forma

1. GENERAL INFORMATION

1. Programme Title:	BSc (Hons) in Environmental Civil Engineering
2. Final Award:	BSc (Hons) in Environmental Civil Engineering
3. Exit Awards:	University Certificate of Higher Education University Diploma of Higher Education BSc in Environmental Civil Engineering BSc (Hons) in Environmental Civil Engineering
4. Awarding Body:	Glasgow Caledonian University (GCU)
5. Approval Date:	March 2016
6. School:	Engineering and Built Environment (EBE)
7. Host Division/Dept:	Construction and Surveying
8. UCAS Code:	H220
9. PSB Involvement:	Joint Board of Moderators (JBM)
10. Place of Delivery:	GCU
11. Subject Benchmark Statement:	Engineering
12. Dates of PSP preparation/revision:	June 2019

2. EDUCATIONAL AIMS OF THE PROGRAMME

General Aims:

- (a) to provide the construction industry with well educated, competent civil engineers capable of responding to industry's current and future needs
- (b) to prepare students for their careers, further personal study, and for personal and professional development

Aims of the Programme at BSc (Hons) in Environmental Civil Engineering level exit point:

- (a) to provide students with a high quality undergraduate degree programme comprising a sound knowledge base encompassing engineering design and management principles, their application in addition to related health, safety and sustainability issues.
- (b) to deliver a demanding programme which equips students with key knowledge, comprehension and skills competency essential for incorporated engineers in environmental civil engineering
- (c) to provide an education base and degree programme which is accredited by the Joint Board of Moderators (JBM)
- (d) to provide students with the necessary academic knowledge and professional ability to be applied in a challenging career in the civil engineering profession
- (e) to enable students to develop intellectual strengths and creative powers which are flexible and adaptable to the rapidly changing demands of industry and society
- (f) to enable students to develop and maintain personal transferable skills
- (g) to enable students to develop good judgement and innovative thinking processes by the development and application of logical analysis, evaluation and synthesis techniques and
- (h) to introduce students to research methods and a learning experience which promotes and encourages a culture of lifelong learning throughout their career

Student Journey through the Programme:

Level 1

Foundation for study of the discipline, establishment of “ground rules”. An outline knowledge of the scope and main areas of the discipline; an understanding of the main theories, principles and concepts. Students will be able to:

- Use their knowledge of the subject and its techniques to evaluate a range of arguments and solutions to problems and issues of a routine nature
- Apply their discipline-related and transferable skills in contexts which have well defined criteria
- Undertake further learning in a structured and managed environment

Level 2

Engagement with the core areas of the discipline in preparation for professional placement. Developing knowledge and understanding of the scope and main areas of the discipline and its interaction with related areas/disciplines; familiarity and understanding of the essential theories, concepts and awareness of major issues within the discipline.

Students will be able to use their knowledge, understanding and skills to:

- Critically evaluate evidence-based arguments and identify solutions to clearly defined problems of a routine nature
- Apply their discipline-related and transferable skills to contexts where the task and criteria for decisions are generally well defined but where responsibility and initiative is required

Level 3

Focusing on the key specialist areas of the discipline. Developing a broad and comparative knowledge of the general scope of the different areas and applications, and interactions with related areas/disciplines. Critical understanding of the essential theories, principles and concepts of the discipline, and the ways in which these are developed.

Students will be able to use their knowledge, understanding and skills to:

- Both identify problems and issues and formulate, evaluate and apply evidence and arguments
- Apply their discipline-related and transferable skills to contexts where criteria and the scope of the task may be well defined but where personal responsibility and decision making is also required

Level 4

Further extend knowledge of the specialist areas of the discipline. A systematic, extensive and comparative knowledge and understanding of the discipline, and its links to related areas/disciplines. A critical understanding of the established theories, principles and concepts of a number of advanced and emerging issues at the forefront of the discipline.

Students will be able to use their knowledge, understanding and skills:

- In the systematic assessment of a wide range of concepts, ideas and data
- In identifying and analysing complex problems and issues, demonstrating originality and creativity in formulating, evaluation and applying evidence-based solutions and arguments
- To apply their discipline-related and transferable skills in contexts where there is a requirement for:
 - (a) The exercise of personal responsibility and initiative
 - (b) Decision-making in complex and unpredictable contexts

(c) The ability to undertake further developments of a professional nature

4. PROGRAMME STRUCTURES AND REQUIREMENTS, LEVELS, MODULES, CREDITS AND AWARDS

Full Time Mode

SCQF7 (Level 1)

Module Code	Module Title	Credit
M1H120901	Fluid mechanics and thermodynamics	20
M1K203077	Professional Orientation & Practice	20
M1K221884	Construction Materials	20
M1G121961	Applied Mathematics 1	20
M1H223148	Land Surveying	20
M1H120822	Structural Mechanics (Statics & Dynamics)	20

Exit Award – Certificate of Higher Education **120**

SCQF8 (Level 2)

Module Code	Module Title	Credit
M2N221315	Construction Contracts 2	20
M2H220818	Structural Design & Analysis	20
M2H320742	Hydraulics	20
M2K102838	Design of Structures	20
M2F621949	Geotechnics	20
M2N220730	Construction Process Management 1	20
M2K224016	Preparation for placement	10

Exit Award – Diploma of Higher Education **250**

SCQF9 (Level 3)

Module Code	Module Title	Credit
	<i>Placement route (Trimester 1)</i>	
M3K224022	Professional Placement Learning	60
	<i>Non Placement route (Trimester 1)</i>	
M3H202843	Transportation	20
M3K203062	Intermediate Measurement & Contract	20
M3K220211	Managed Project Learning	20
	<i>Core modules (Trimester 2)</i>	
M3K221535	Structural Engineering	20
M3F620811	Geotechnical Design	20
M3H121899	Public Health, Water and Waste Water Treatment	20

Exit Award – BSc Environmental Civil Engineering **370**

SCQF10 (Honours Level)

Module Code	Module Title	Credit
MHH125989	Water Resource Management (core)	20
MHK221188	Composite Materials Performance	20
MHH123180	The Engineer in Business	
MHH223204	Advanced Structural Engineering (core)	20
MHF720126	Waste Management & Contaminated Land	20
MHK221198	Dissertation	40
<i>Exit Award – BSc (Hons) Environmental Civil Engineering</i>		490

Part Time Mode

SCQF7 (Level 1 / Year 1)

Module Code	Module Title	Credit
	Credit for Prior Learning	20
M1K221884	Construction Materials	20
M1K203077	Professional Orientation & Practice	20
M1H120901	Fluid mechanics and thermodynamics	20
M1H120822	Structural Mechanics (Statics & Dynamics)	20

SCQF7&8 (Level 1/ Year 2)

Module Code	Module Title	Credit
M1G121961	Applied Mathematics 1	20

Exit Award – Certificate of Higher Education

120

Module Code	Module Title	Credit
M2H220818	Structural Design & Analysis	20
M2K102838	Design of Structures	20
M2F621949	Geotechnics	20

SCQF8&9 (Levels 2 & 3 / Year 3)

M2N221315	Construction Contracts 2	20
M2H320742	Hydraulics	20
M2N220730	Construction Process Management 1	20

Exit Award – Diploma of Higher Education

240

Module Code	Module Title	Credit
M3K221535	Structural Engineering	20
M3K224776	Work Based Learning 2	20

SCQF9 (Level 3 / Year 4)

Module Code	Module Title	Credit
M3H202843	Transportation	20
M3K220211	Managed Project Learning	20
M3F620811	Geotechnical Design	20
M3H121899	Public Health Water and Waste Water Treatment	20
MHK224777	Work Based Learning 3	20

<i>Exit Award – BSc Environmental Civil Engineering</i>		370
SCQF10 (Level 4 / Year 5)		
Module Code	Module Title	Credit
MHH125989	Water Resource Management	20
MHK221188	Composite Materials Performance	20
MHH223204	Advanced Structural Engineering	20
MHK221198	Dissertation	40
<i>Exit Award – BSc (Hons) Environmental Civil Engineering</i>		480

Part time students would normally submit their dissertation for the August Assessment Board.

8. ASSESSMENT REGULATIONS

The University Assessment Regulations (current at **May 2018**) apply to the Programme in all respects. There is one programme-specific regulation which deviates from the standard University Assessment Regulations (calculation of Honours classification). The Programme's structure, progression, credits and awards are wholly consistent with the GCU Qualifications Framework.

Awards:

For the awards of Certificate of Higher Education, Diploma of Higher Education, BSc Environmental Civil Engineering Degree and BSc (Hons) Environmental Civil Engineering Degree

- Minimum pass mark of 40% for each taught module
- Minimum pass mark of 40% for Dissertation/Honours Project module
- To qualify for an award of Certificate of Higher Education, students must complete all the programme requirements and obtain 120 SCQF credits, of which a minimum of 90 must be SCQF7
- To qualify for an award of Diploma of Higher Education, students must complete all the programme requirements and obtain 240 SCQF credits, of which a minimum of 90 must be SCQF8
- To qualify for an award of BSc in Environmental Civil Engineering Degree, students must complete all the programme requirements and obtain 360 SCQF credits, of which a minimum of 90 must be SCQF9
- To qualify for an award of BSc (Hons) in Environmental Civil Engineering Degree, students must complete all the programme requirements and obtain 480 SCQF credits, of which a minimum of 90 must be SCQF10.

Regulations for Distinction:

The Programme complies with the University Assessment Regulations in respect of the award of Distinction. To be awarded a Certificate/Diploma/BSc with Distinction, a student must obtain an overall average of 70% or more with no individual module mark below 55%, all at the first attempt.

Calculation of Honours Classification*

For students entering year 1 in September 2017 or later and direct entrants entering September 2018 and later:

For FT students this will be based on the average mark from 180 credits from Trimester B in year 3 and Trimesters A and B of year 4 (Geotechnical Design, PHWWT, Structural Design, Dissertation, Water Resource Management, Advanced Structural Engineering, Waste Management and Contaminated Land, and an option).

For PT students this will be based on the average mark from 180 credits comprising: Geotechnical Design, PHWWT, Structural Engineering, Dissertation, Water Resource Management, Advanced Structural Engineering, Composite Material Performance, Work based learning 3).

For all other students:

For FT students this will be based on the average mark from 120 credits in year 4 (120 credits from SCQF10 – Dissertation, Water Resource Management, Advanced Structural Engineering, Waste Management and Contaminated Land, and an option).

For PT students this will be based on the average mark from 120 credits (SCQF10 – Dissertation, Water Resource Management, Advanced Structural Engineering, Composite Material Performance, Work based learning 3).

Role of External Assessor:

Senate appoints External Assessors to the Assessment Board (AB) on the basis of nominations from Schools and approval through the University QA and QE processes.

The duties of an External Assessor will include the following:

- To moderate the work of the internal assessors in respect of the assessments under his/her jurisdiction
- To attend Assessment Boards at which the results of final stage assessment will be determined
- To satisfy himself/herself that the work and decisions of the Assessment Board(s) are consistent with the policies and regulations of the University and best practice in higher education
- To ensure that students are assessed within the regulations approved by the University for the progression of students and to inform the University on any matter which, in his/her view, mitigates against the maintenance of proper academic standards
- To report annually to the Clerk to Senate on the standards attained by students on the programme and on other matters which may seem appropriate for their report