GLASGOW CALEDONIAN UNIVERSITY

Programme Specification Pro-forma (PSP)

1. GENERAL INFORMATION

1.	**Programme Title:**	BSc (Hons) Environmental Civil Engineering
2.	**Final Award:**	BSc (Hons) Environmental Civil Engineering
3.	**Exit Awards:**	Certificate of Higher Education Diploma of Higher Education BSc Environmental Civil Engineering
4.	**Awarding Body:**	Glasgow Caledonian University (GCU)
5.	**Period of Approval:**	September 2022 to September 2027
6.	**School:**	Computing, Engineering and Built Environment (CEBE)
7.	**Host Department:**	Civil Engineering and Environmental Management
8.	**UCAS Code:**	H220
9.	**PSB Involvement:**	Joint Board of Moderators (JBM), CIWEM, CABE
10.	**Place of Delivery:**	Glasgow
11.	**Subject Benchmark Statement:**	Engineering
12.	**Dates of PSP Preparation/Revision:**	November 2021

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 Route

SCQF Level 7		
Module Code	**Module Title**	**Credit**
M1H120901	Fluid mechanics and thermodynamics	20
M1K203077	Professional Orientation & Practice	20
M1K221884	Construction Materials	20
M1G127072	Applied Mathematics 1	20
M1H223148	Land Surveying	20
M1H120822	Structural Mechanics (Statics & Dynamics)	20
	Exit Award – Certificate of Higher Education	**120**
SCQF Level 8		
Module Code	**Module Title**	**Credit**
M2N221315	Construction Contracts 2	20
M2H220818	Structural Design & Analysis	20
M2H320742	Hydraulics	20
M2K102838	Design of Structures	20
M2F626857	Geotechnics	20
M2N220730	Construction Process Management 1	20
M2K226936	Preparation for placement	10
	Exit Award – Diploma of Higher Education	**250**
SCQF Level 9		
Module Code	**Module Title**	**Credit**
	Placement route (Trimester A)	
M3K226918	Professional Placement Learning	60
	Non Placement route (Trimester A)	
M3H227073	Transportation	20
M3K226935	Intermediate Measurement & Contract	20
M3K220211	Managed Project Learning	20
	Core modules (Trimester B)	
M3K221535	Structural Engineering	20
M3F620811	Geotechnical Design	20
M3H121899	Public Health, Water and Waste Water Treatment	20
	Exit Award – Bachelor of Science in Environmental Civil Engineering	**370**
SCQF Level 10		
Module Code	**Module Title**	**Credit**
MHH126811	Water Resource Management (core)	20
MHK221188 MHH123180	Composite Materials Performance **or** The Engineer in Business	20
MHH223204	Advanced Structural Engineering (core)	20
MHF720126	Waste Management & Contaminated Land	20
MHK226974	Dissertation	40
	Exit Award – Bachelor of Science with Honours in Environmental Civil Engineering	**490**

Part Time Route		
SCQF Level 7 (Year 1)		
Module Code	**Module Title**	**Credit**
	RPL Credit	20
M1K221884	Construction Materials	20
M1K203077	Professional Orientation & Practice	20
M1H120901	Fluid mechanics and thermodynamics	20
M1H120822	Structural Mechanics (Statics & Dynamics)	20
SCQF Level 7&8 (Year 2)		
M1G127072	Applied Mathematics 1	20
Exit Award – Certificate of Higher Education		**120**
M2H220818	Structural Design & Analysis	20
M2K102838	Design of Structures	20
M2F626857	Geotechnics	20
SCQF Level 8&9 (Year 3)		
M2N221315	Construction Contracts 2	20
M2H320742	Hydraulics	20
M2N220730	Construction Process Management 1	20
Exit Award – Diploma of Higher Education		**240**
M3K221535	Structural Engineering	20
M3K226916	Work Based Learning 2	20
SCQF Level 9&10 (Year 4)		
M3H227073	Transportation	20
M3K220211	Managed Project Learning	20
M3F620811	Geotechnical Design	20
M3H121899	Public Health, Water and Waste Water Treatment	20
MHK226917	Work Based Learning 3	20
Exit Award – Bachelor of Science in Environmental Civil Engineering		**380**
SCQF Level 10 (Year 5)		
MHH126811	Water Resource Management	20
MHK221188	Composite Materials Performance	20
MHH223204	Advanced Structural Engineering	20
MHK226974	Dissertation	40
Exit Award – Bachelor of Science with Honours in Environmental Civil Engineering		**480**

Part time students would normally submit their dissertation for the August Progression & Awards Board.

8. ASSESSMENT REGULATIONS

Students should expect to complete their programme of study under the Regulations that were in place at the commencement of their studies on that programme, unless proposed changes to University Regulations are advantageous to students.

The Glasgow Caledonian University Assessment Regulations which apply to this programme, dependent on the year of entry and with the following approved exceptions can be found at:
GCU Assessment Regulations

Calculation of Honours Classification

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

Honours Classification will be calculated on the average mark from 180 credits as follows:

- All 120 Level 4/SCQF 10 credits plus:
- 60 credits from Level 3/SCQF 9 from the following core modules:
    - Geotechnical Design
    - Public Health, Water and Wastewater Treatment
    - Structural Engineering

For all other students:

Honours Classification will be calculated on the average mark from 120 credits at Level 4/SCQF10.

Approved Exceptions Case: 215
Exception to the University Undergraduate Assessment Regulations, Section 13 Awarding of Credit for Modules, Subsection 13.2.1 Compensation
A maximum of 30 credits in a Bachelors or integrated Masters degree programme can be compensated, and a maximum of 20 credits in a Masters degree other than the integrated Masters degree.