Course Specification

Course Summary Information				
1	**Course Title**		BEng (Hons) Civil Engineering with Foundation Year	
2	**BCU Course Code**	**UCAS Code**	US0740F	H20F
3	**Awarding Institution**		Birmingham City University	
4	**Teaching Institution(s)** (if different from point 3)			
5	**Professional Statutory or Regulatory Body (PSRB) accreditation** (if applicable)			

6	**Course Description**
	Want to become a Civil Engineer? Study our Civil Engineering BEng degree course at Birmingham City University. This course is designed to meet the requirements of relevant professional bodies and will give you the best start to your career in civil engineering. Much of your learning activity will be hands-on, with access to our strong industry links. You'll also be provided with the latest CAD, BIM and FEM software, meaning you'll be well equipped to make an impact in an important industry. **What's covered in the course?** The Foundation Year course option enables you to study for our BEng (Hons) degree over an extended full-time duration of four years by including a Foundation Certificate (year one of four) in your studies. The Foundation Certificate provides a broad study programme that underpins the follow-on degree. In order to progress to the next year of the degree, it is necessary to achieve a pass in all modules of the Foundation Certificate. On this course you will develop the key transferable skills that modern employers require, such as problem solving, project planning, presentation and communication. Our strong links to industry enable you to apply your learning to problem-based scenarios, ensuring your intellectual and practical competencies are fully developed. Civil engineers build power stations, bridges and motorways; our course will prepare you to work on these projects. You will focus on hydraulics, examining how water flows and drives turbines, and your studies will be enhanced through site visits, field trips and guest lectures. You'll experience a unique simulated workplace and work towards a successful career as a chartered civil engineer.

7	Course Awards		
7a	**Name of Final Award**	**Level**	**Credits Awarded**
	Bachelor of Engineering with Honours Civil Engineering Bachelor of Engineering with Honours Civil Engineering with Professional Placement Year	6 6	480 600
7b	**Exit Awards and Credits Awarded**		
	Foundation Certificate Engineering Certificate of Higher Education Civil Engineering Diploma of Higher Education Civil Engineering Bachelor of Engineering Civil Engineering	3 4 5 6	120 240 360 420

8	Derogation from the University Regulations
	Not applicable

9	Delivery Patterns		
Mode(s) of Study	**Location(s) of Study**	**Duration of Study**	**Code(s)**
Full Time	City Centre	4 years	US0740F
With Professional Placement Year	City Centre	5 years	US1154

10	Entry Requirements
	The admission requirements for this programme are stated on the programme page of the BCU website at https://www.bcu.ac.uk/ or may be found by searching for the programme entry profile located on the UCAS website.

11	Course Learning Outcomes
	Knowledge & Understanding
1	Apply scientific principles, theories, and design processes and methods that underpin civil engineering and its branches (structural, geotechnical, water, and transportation).
2	Apply analytical, numerical, and computational techniques used to model, simulate, design, and develop solutions to civil engineering problems.
3	Use and critically appraise business, organisational, teamwork, and management practices in industries based on civil engineering.
	Cognitive & Intellectual Skills
4	Argue rationally and draw independent conclusions based on a rigorous, analytical, and critical approach.
5	Critically appraise the usefulness of new technologies and the changes in civil engineering practice.

6	Develop innovative designs and solutions based on a broad range of scientific principles in order to meet a specification, while taking into account commercial risks and constraints, contractual issues, and environmental impact.
	Practical & Professional Skills
7	Demonstrate practical engineering skills in the use appropriate laboratory and workshop equipment, following appropriate Health & Safety guidelines.
8	Use digital technology for the modelling, analysis, and design of civil engineering projects, recognising their limitations and being aware of the directions for future development.
9	Apply industry Codes of Practice, including national and international standards, as well as the relevant Health & Safety regulation.
	Key Transferable Skills
10	Participate effectively in group working activities in a leadership role, being able to undertake most of the technical functions within the group and managing the delivery of a plan under changing circumstances in a timely fashion.
11	Integrate a wide range of data from a variety of sources in order to solve a range of engineering problems, apply knowledge and understanding to challenging situations, while being aware of the limitations of the solution.
12	Make effective use of information and communications technologies, including use of the internet, standard office applications, and a range of civil engineering-specific software packages.

12	**Course Requirements**

12a

Level 3:

In order to complete this course, you must successfully complete all the following CORE modules (totalling 120 credits):

Module Code	Module Name	Credit Value
TBC	Future Manufacturing and Design	30
TBC	Mechanical Engineering Application Toolkits	30
TBC	Automotive Engineering Practice	30
TBC	Electrical and Electronic Engineering Practice	30

Level 4:

In order to complete this course, you must successfully complete all the following CORE modules (totalling 120 credits):

Module Code	Module Name	Credit Value
BNV4126	Civil Engineering Principles 1	20
ENG4124	Mathematical Modelling 1	20
BNV4127	Civil Engineering Principles 2	20
BNV4125	Civil Engineering Design Project	20
ENG4125	Mathematical Modelling 2	20
BNV4104	Integrated Digital Design: Residential	20

Level 5:

In order to complete this course, you must successfully complete all the following CORE modules (totalling 120 credits):

Module Code	Module Name	Credit Value
BNV5124	Structures 1	20
BNV5123	Soil Mechanics	20
ENG5099	Numerical Analysis	20
BNV5132	Civil Engineering Materials	20
BNV5121	Civil Engineering Applications	20
BNV5120	Integrated Digital Design for Complex Structures	20

Professional Placement Year (optional)

In order to qualify for the award of Bachelor of Engineering with Civil Engineering with Professional Placement Year, you must successfully complete all of the modules listed as well as the following Level 5 module:

Module Code	Module Name	Credit Value
PPY5004	Professional Placement	120

Level 6:

In order to complete this course, you must successfully complete all the following CORE modules (totalling 120 credits):

Module Code	Module Name	Credit Value
BNV6131	Hydraulics and Drainage	20
BNV6132	Geotechnical Engineering	20
BNV6135	Structures 2	20
BNV6134	Advanced Analysis and Design Methods	20
BNV6200	Individual Honours Project	40

12b Structure Diagram

Level 3

SEMESTER ONE	SEMESTER TWO
Future Manufacturing and Design (30 credits) Mechanical Engineering Application Toolkits (30 credits)	Automotive Engineering Practice (30 credits) Electrical and Electronic Engineering Practice (30 credits)

Level 4

SEMESTER ONE	SEMESTER TWO
Civil Engineering Principles 1 (20 credits) Mathematical Modelling 1 (20 credits) Civil Engineering Design Project (20 credits)	Civil Engineering Principles 2 (20 credits) Mathematical Modelling 2 (20 credits) Integrated Digital Design: Residential (20 credits)

Level 5

SEMESTER ONE	SEMESTER TWO
Structures 1 (20 credits) Soil Mechanics (20 credits) Numerical Analysis (20 credits)	Civil Engineering Materials (20 credits) Civil Engineering Applications (20 credits) Integrated Digital Design for Complex Structures (20 credits)

Professional Placement Year 3 (optional)

Professional Placement Module 120 Credits

Level 6

SEMESTER ONE	SEMESTER TWO
Structures 2 (20 credits) Hydraulics and Drainage (20 credits)	Geotechnical Engineering (20 credits) Advanced Analysis and Design Methods (20 credits)
Individual Honours Project (40 credits)	

13 Overall Student Workload and Balance of Assessment

Overall student *workload* consists of class contact hours, independent learning and assessment activity, with each credit taken equating to a total study time of around 10 hours. While actual contact hours may depend on the optional modules selected, the following information gives an indication of how much time students will need to allocate to different activities at each level of the course.

- *Scheduled Learning* includes lectures, practical classes and workshops, contact time specified in timetable
- *Directed Learning* includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning
- *Private Study* includes preparation for exams

The *balance of assessment* by mode of assessment (e.g. coursework, exam and in-person) depends to some extent on the optional modules chosen by students. The approximate percentage of the course assessed by coursework, exam and in-person is shown below.

Level 3

Workload

40% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	432
Directed Learning	168
Private Study	600
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	100%
Exam	0%
In-Person	0%

Level 4

Workload

35% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	336
Directed Learning	264
Private Study	600
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	60%
Exam	35%
In-Person	5%

Level 5

Workload

24% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	288
Directed Learning	214
Private Study	698
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	53%
Exam	32%
In-Person	15%

Level 6

Workload

27% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	324
Directed Learning	212
Private Study	664
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	70%
Exam	30%
In-Person	0