



# BRISF/DEGREES

at Applied Science University in Partnership with

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London South Bank University (Leading to **a Dual Award** from ASU and LSBU) BEng (Hons) Architectural Engineering BEng (Hons) Civil Engineering



#### London South Bank University

LSBU established as the Borough Polytechnic institute in 1892, the original aim of London South Bank University (LSBU) was to promote industrial skills, general knowledge, health and well- being of young men and women and this mission remains remarkably similar today. The University's focus on vocational education and professional opportunity allows it to produce graduates who can meet the challenges of today's workplace. LSBU won the Entrepreneurial University of the Year award in 2016.

#### **Applied Science University**

ASU aspires to become a leading University in the Kingdom of Bahrain and in the wider Gulf region. We support economic and social development by providing undergraduate and postgraduate programmes that are designed to develop students' understanding of key theories and concepts through knowledge acquisition and development of practical skills, and with a focus on providing modules that are in high demand by employers both domestically and internationally. ASU aims to foster lifelong learning and to prepare graduates for a range of career paths within their chosen field or discipline.

#### **Dual Award**

In partnership with London South Bank University (LSBU), UK, a leading British University, Applied Science University (ASU) is now hosting British Programmes, making it affordable for students to gain internationally recognized British qualifications in Bahrain. Upon successful completion of a hosted programme, students will be awarded a degree from ASU and LSBU.

#### Advantages

- Save on the high cost of living and tuition in the UK, and live close to your family and friends in Bahrain while earning a British degree.
- Your degree is awarded by ASU and a British university giving you a competitive advantage in the job market, wherever your career takes you.
- Gain practical knowledge from highly qualified academics with robust professional experience.
- Develop a thorough understanding of the key aspects of your programme of study as well as lifelong learning skills. These key competencies and values are sought after by employers domestically and internationally.
- Get a chance to attend workshops in UK interacting and collaborating with LSBU staff and international students.
- Become a global professional

#### **Entry Requirements**

In order to be considered for entry to the programme, applicants are required to have:

 A Bahraini or GCC Secondary School (Scientific) Certificate, or equivalent, with a minimum of 65% GPA\* and a 60% in Mathematics and 60% in English language. In addition, English language competency equivalent to IELTS 4.5 or above is required

 Candidates with a lower GPA may also be admitted subject to a satisfactory interview by the College.
Or

 Five GCSE passes, at grade C or above, including Mathematics and English (or another subject that demonstrates an adequate command of English).

Progressing to the second year of the programme is subject to:

• Demonstrating English competency equivalent to IELTS 5 or above.

#### Programmes

- In partnership with London South Bank University (UK), the following programmes are being hosted by ASU:
- BEng (Hons) Architectural Engineering
- BEng (Hons) Civil Engineering

The Bachelor's degree programmes are four years long. In each year, students must complete a specific number of modules (see study plans).

To achieve the award, all years of the programme must be passed successfully.

Detailed descriptions of the individual modules for each programme may be found on the web page: ww.asu.edu. bh/engineering.

# **BEng (Hons) Architectural Engineering**

# **Objectives of the Programme**

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This programme is intended for undergraduate students who wish to study the discipline of Architectural Engineering to Honours degree level and who may wish to achieve professional status later. This programme is designed to embrace developments in the industry, in particular the Engineering Council UK (ECUK) Standard for Professional Engineering Competence (UK-SPEC).

#### Distinctive features of the programme

- Develop students' core, personal and employability skills, to help them adapt to the changing labour market.
- Expose students to a multitude of aspects of the construction process, and prepare them for work in multidisciplinary teams.
- Give students a blend of architecture and civil engineering modules, exploring the form and appearance of buildings, as well as their analysis, design and construction.
- Produce graduates with knowledge, problem-solving skills and practical know-how of the key aspects of Architectural and civil engineering, and the creativity and individuality of architecture.
- Produce graduates aware of the whole design process, including design procedures in codes of practice, architectural engineering procedure, project management, quality issues, finance, ethical conduct, environmental issues and health and safety.
- Produce graduates who can work in multidisciplinary design practices and provide a link between engineering and architecture professionals.
- Provide graduates with the necessary academic qualification which will provide the full educational base for a successful career in industry.

# What is the difference between Architecture and Architectural Engineering?

	Architecture	Architectural Engineering		
What's it all about?	Design, and how this fits within the broader context of society	Engineering aspects of buildings – their structural systems		
Who is the course for?	Creative people with strong art and design skills who are interested specifically in the building.	Mathematically minded people and scientific people who are interested in building physics, the construction process, and design.		
What I will study?	Design and making skills, history of Architecture, architectural theory, structures , materials, ethics and communication skills.	Architectural sustainable building design and technology, building information modelling(BIM),3D computer aided design (CAD) and visualization, structural building analysis, calculus, building physics and thermodynamics.		
What careers are open to me?	Architectural Assistant, or Architect	Architectural Engineer		
What does the job involve?	Working with a client to translate their vision into a design. This could be at the principle design stage or produce detailed construction drawings.	Carrying out design, testing, analysis, and implementation of building structures, as well as analysis of what is under a building to meet regulations and the demands of the design. They use specialist skills such as building information modelling.		

# Study Plan BEng (Hons) Architectural Engineering Year 1 (Level S)

Level S – Semester 1					
Modules					
Engineering Science 1					
Intermediate English					
Mathematics 1					
Principles of Engineering					
Laboratory and Workshop Skills					
Level S – Semester 2					
Modules					
Engineering Science 2					
Advanced English					
Mathematics 2					
Constructing the Built Environment					
Study Skills and Professional Practice					
Computer Programming for Engineering					

#### Level S – Summer Semester (Compulsory) Modules

Human Rights

Bahrain Civilisation and History

Arabic Language / Arabic Language Non-Arabic Speakers

### Year 2 (Level 4)

Level 4 – Semester 1					
Modules					
Engineering Practice and Design 1					
Engineering Mathematics 1					
Principles of Engineering Science 1					
Architectural Engineering Design and Structures 1					
Integrated Design and Construction					
CAD Graphics					
Level 4 – Semester 2					
Modules					
Engineering Practice and Design 2					
Engineering Mathematics 2					
Principles of Engineering Science 2					
Architectural Engineering Design and Structures 2					
Building Technology					
Building Environment Simulation and Analysis					

Year 3 (Level 5)

Level 5 – Semester 1

Modules

Structural Design 1

Advanced Engineering Mathematics

Geotechnics 1

Design Procedures for Architecture 1

AutoCAD-3D

Engineering Management and Economics

Level 5 – Semester 2

Modules

Structural Design 2 Building Information Modelling Engineering Ethics

Design Procedures for Architecture 2

Architectural Engineering Field Studies

Internship

### Year 4 (Level 6)

Level 6 – Semester 1					
Modules					
Project 1					
Structural Design and Analysis 1					
Engineering Research Methods					
Energy Conservation in Buildings					
Thermodynamics for Buildings					
Forensic Engineering and Conservation					
Level 6 – Semester 2					
Modules					
Project 2					
Structural Design and Analysis 2					
Geotechnics 2					
Innovation, Enterprise and Management					

Design project

#### **Career Paths:**

Unleash your potential with our Architectural Engineering Programme and explore a variety of exciting career opportunities. Here is a glimpse into the diverse jobs possibilities that await you in the field of architectural engineering. Take the first step towards a rewarding career in this dynamic industry.

- 1. Junior Architectural Engineer
- 2. Assistant Architectural Engineer
- 3. Design Engineer Architecture
- 4. Construction Engineer Architecture
- 5. Project Coordinator Architecture
- 6. Structural Engineer Architecture
- 7. Building Services Engineer Architecture
- 8. BIM Modeler Architecture

- 9. Architectural Technologist
- 10. Junior Architect
- 11. BIM Architect
- 12. Assistant Site Engineer
- 13. Health and Safety Engineer
- 14. Environmental Engineer
- 15. Quality Control Engineer
- 16. Quantity Surveyor

# **BEng (Hons) Civil Engineering**

#### **Objectives of the Programme**

This programme is intended for undergraduate students who wish to study the discipline of Civil Engineering to Honours degree level and who may wish to achieve professional status later. This programme is designed to embrace developments in the industry, in particular the Engineering Council UK (ECUK) Standard for Professional Engineering Competence (UK-SPEC). The curriculum emphasises the development of traditional engineering numerical strengths coupled with an enquiring creative approach as required by employers. This degree will give students a solid foundation for entering the industry equipped with the necessary skills required to excel in a competitive environment.

#### Distinctive features of the programme.

- Produce graduates who are suited to a career in Civil engineering and the construction industry.
- Produce graduates who have a breadth and depth of knowledge and understanding of the key aspects of civil engineering.
- Allow graduates to acquire and develop analytical and problem-solving skills, and subject-specific skills.
- To acquire and develop the ability to evaluate evidence, arguments and assumptions, to reach sound judgements and communicate effectively.
- Develop graduates who approach design problems creatively and who have the technical skills to see their ideas through to realisation.
- Provide an education in disciplines relevant to the development of the built environment aiming to cultivate interaction and teamwork culture amongst various professionals in the field.

# **Study Plan** BEng (Hons) Civil Engineering Year 1 (Level S)

Level S – Semester 1					
Modules					
Engineering Science 1					
Intermediate English					
Mathematics 1					
Principles of Engineering					
Laboratory and Workshop Skills					
Level S – Semester 2					
Modules					
Engineering Science 2					
Advanced English					
Mathematics 2					
Constructing the Built Environment					
Study Skills and Professional Practice					
Computer Programming for Engineering					
Level S – Summer Semester (Compulsory)					
Modules					
Human Rights					

Bahrain Civilisation and History

Arabic Language / Arabic Language Non-Arabic Speakers

#### Year 2 (Level 4)

#### Level 4 – Semester 1

#### Modules

Engineering Practice and Design 1

Engineering Mathematics 1

Principles of Engineering Science 1

Surveying and Structures 1

Civil Engineering Drawing and Surveying

Structural Design

#### Level 4 – Semester 2 Modules

Engineering Practice and Design 2

Engineering Mathematics 2

Principles of Engineering Science 2

Surveying and Structures 2

**Engineering Ethics** 

Soil Mechanics

#### Year 3 (Level 5)

Level 5 – Semester 1	Level 6 – Semester 2
Modules	Modules
Advanced Engineering Mathematics	Current Topics in Civil and Construction Engineering
Design and Construction 1	Geotechnical Engineering
Hydraulics	Structural Design and Analysis 2
Structural Mechanics	Construction Management
Environmental Engineering	Project
Engineering Management and Economics	

#### **Career Paths:**

Unleash your potential with our Civil Engineering Programme and explore a variety of exciting career opportunities. Here is a glimpse into the diverse jobs possibilities that await you in the field of civil engineering. Take the first step towards a rewarding career in this dynamic industry.

- 1. Assistant Site Engineer
- 2. Construction Engineer
- 3. Structural Engineer
- Project Engineer
- 5. Estimation Engineer
- 6. Site Supervisor
- 7. Quality Control Engineer
- 8. Planning Engineer
- 9. Quantity Surveyor
- 10. Building Services Engineer
- 11. Geotechnical Engineer
- 12. Highway Engineer

- 13. Environmental Engineer
- 14. Contracts Engineer
- 15. Health and Safety Engineer

Level 5 – Semester 2

Modules

Infrastructure and Highway Engineering

Advanced Structural Analysis and Design

Civil Engineering and Construction Field Studies

Year 4 (Level 6)

Level 6 – Semester 1

Modules

Design and Construction 2

Structural Design and Analysis 1

**Civil Engineering Materials** 

Engineering System Design

Engineering Research Methods

Innovation, Enterprise and Management

Foundations

Theory of Structures

Internship

- 16. BIM Engineer
- 17. Materials Engineer
- 18. Surveying Engineer
- 19. Structural Design Engineer
- 20. Transportation Engineer
- 21. Water Resources Engineer
- 22. Bridge Engineer
- 23. Geotechnical Engineer

# **Undergraduate Tuition & Fees**

The estimated duration for completion of a Bachelors Degree at Applied Science University is **4 years**. This is structured around **150 credit-hours** .

High school average	Scholar- ship	Fees/Hour	Year 1 (Level S) semester 1	Year 1 (Level S) semester 2	Year 1 (Level S) Summer semester	Total Year 1 (Level S)	Total Year 1 (Level S) – After Scholarship
95%-100%	25%	180	2700	3240	1620	7560	5670
85%-94%	20%	180	2700	3240	1620	7560	6048
70%-84%	15%	180	2700	3240	1620	7560	6426
Below 70%		180	2700	3240	1620	7560	7560

High school average	Scholar- ship	Fees/Hour	Years 2 & 3 & 4 (Levels 4 & 5 & 6) semester 1	Years 2 & 3 & 4 (Levels 4 & 5 & 6) semester 2	Total Per Annum For The Years 2 & 3 & 4 (Levels 4 & 5 & 6)	Total Per Annum For The Years 2 & 3 & 4 (Levels 4 & 5 & 6) After Scholarship
95%-100%	25%	180	3240	3240	6480	4860
85%-94%	20%	180	3240	3240	6480	5184
70%-84%	15%	180	3240	3240	6480	5508
Below 70%		180	3240	3240	6480	6480

High school average	Scholarship	Fees/Hour	Total 4 Years before Scholarship	Total 4 Years After Scholarship
95%-100%	25%	180	27000	20250
85%-94%	20%	180	27000	21600
70%-84%	15%	180	27000	22950
Below 70%		180	27000	27000

#### Notes:

Note 1: The above is an approximate calculation as per the study plan per year.

Note 2: The fees may increase/decrease depending on the registered courses per semester. Note 3 : The tuition fees are paid every semester in three instalments: The First instalment when registering the courses and the Second instalment prior to the Mid-Term exams and the Third instalment prior to the Final Exams



#### **Applied Science University**

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# Applied Science University on the Road of Excellence



قُدم هذا الإعلان بموافقة مجلس التعليم العالي - رقم الموافقة (ع ت / ب / 2024 / 1)