

Overview

Programme Code	46392
Programme Title	Civil Engineering
Awarding Institution	Liverpool John Moores University
Programme Type	Degree with Foundation
Programme Leader	
Link Tutor(s)	Amr Sourani

Partner Name	Partnership Type
Oryx Universal College WLL	Franchised

Awards

Award Type	Award Description	Award Learning Outcomes
Target Award	Bachelor of Science with Honours (Fnd) - BSHF	See Learning Outcomes Below

Alternate Award Names	
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External Benchmarks

Subject Benchmark Statement	UG-Engineering (2019)
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Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length
Full-Time, Face to Face	January	Oryx Universal College WLL	4 Years
Full-Time, Face to Face	September	Oryx Universal College WLL	4 Years

Aims and Outcomes

Educational Aims of the Programme

The programme is designed to allow students without sufficient qualifications for level 4 entry to the programme to develop a high level of technical expertise together with the leadership skills needed to practice successfully as a professional engineer in the modern international civil engineering environment. The knowledge and skills gained from this programme are designed to enable graduates to make an immediate contribution to their employers, and to enable them to progress to an MSc or PhD in Civil Engineering. The educational aims of the BEng (Hons) Fnd in Civil Engineering are to: Provide a well-balanced education which allows the student to achieve his/her full academic potential and in doing so to facilitate the development of independent logical thought and judgement. Enable the student to develop his/her intellectual, analytical and critical abilities in order that he/she might exercise those abilities within civil engineering. Deliver an educational experience for the students which enables them to develop their knowledge of those scientific, mathematical and computational principles and methods relevant to civil engineering. Develop the students' ability to apply engineering concepts and tools to the solution of civil engineering problems. Facilitate the development of design capability, from the understanding of customer needs through to the development and evaluation of innovative designs. Encourage and enable students to develop the full range of communication skills. Enable students to solve technical and intellectual challenges within the field of civil engineering, taking into consideration business, social, ethical and sustainability issues. Provide the opportunities for students to combine theory with practice through the practical application of engineering skills. Provide graduates with a range of highly relevant transferable skills such as team working, problem solving, self-learning as a foundation for lifelong CPD, and the ability to exercise initiative and personal responsibility. Develop skills to ensure that the graduate will operate within a sound Health and Safety framework as provided by the regulatory framework of the industry. Develop critical awareness of all aspects of sustainability to ensure that graduates operate responsibly within their chosen discipline, and make positive choices in this context. Encourage students to engage with the development of employability skills by completing a self-awareness statement. The programme aims specific to level 3 are: - study effectively as reflective and independent learners at level 4 and above - select and apply appropriate basic mathematical techniques to engineering and technology problems - use basic physical models and understand how physical principles underpin a range of engineering and technology disciplines - appreciate how algorithms and computer systems are used to solve problems, analyse data and make decisions - carry out an effective experimental investigation

Learning Outcomes

Code	Description
PLO1	Apply knowledge of mathematics, statistics, natural science and engineering principles to the solution of complex problems.
PLO2	Evaluate and mitigate risk, including environmental, commercial and security risk associated with Civil Engineering projects.

Code	Description
PLO3	Work effectively within a group to design, analyse and evaluate Civil Engineering projects, adopting an inclusive approach and recognising the responsibilities, benefits and importance of supporting equality, diversity and inclusivity.
PLO4	Apply practical engineering skills acquired through laboratory work, to the design of complex civil engineering projects.
PLO5	Use a range of land surveying equipment effectively for setting out engineering works and for collecting site data for the production of engineering plans.
PLO6	Exercise initiative and ethical personal responsibility both as a leader and as a team member.
PLO7	Plan and record CPD for personal and professional development.
PLO8	Develop specifications for materials and methods to ensure quality of engineering design solution and its construction.
PLO9	Develop planning and control project schedules with regard to Civil Engineering project management principles, commercial and legal aspects.
PLO10	Ability to write original technical and research reports in compliance to relevant intellectual property and copyrights.
PLO11	Communicate effectively through the written word, engineering drawings, clear use of mathematic notation, orally and through effective use of IT.
PLO12	Analyse complex Civil Engineering problems by collecting, processing and inferring relevant data, facts and information, and by using first principle mathematics, statistics, applied science and engineering principles.
PLO13	Communicate effectively on complex engineering matters with technical and non-technical audiences.
PLO14	Select and apply appropriate computational and analytical techniques to simulate complex Civil Engineering systems for planning, designing and construction, with due regard to the limitations of the techniques and scope of applications employed.
PLO15	Select and evaluate technical literature and other sources of information to address complex Civil Engineering problems.
PLO16	Develop a methodology based on the critical evaluation of technical literature, using qualitative and quantitative data to provide recommendations to bring improvement aligned with UN SDG's, through independent research.
PLO17	Design innovative solutions in accordance with current appropriate codes of practice and industry standards.
PLO18	Demonstrate professional and ethical behaviour with regard to Civil Engineering, involving consideration of Health and Safety, diversity, inclusion, cultural, societal, environmental and commercial matters.
PLO19	Demonstrate knowledge of the holistic nature of Civil Engineering projects and the wider impact on the society, economy and environment. This will include BIM and life cycle analysis.
PLO20	Develop an awareness and the ability to identify ethical concerns and to make reasoned and justified ethical choices.

Programme Structure

Programme Structure Description

The programme is offered in full-time mode.

Programme Structure - 480 credit points	
Level 3 - 120 credit points	
Level 3 Core - 120 credit points	CORE
[MODULE] 3500FETQR Academic English Skills (AES) Approved 2022.01 - 40 credit points	
[MODULE] 3503FETQR Project Study Approved 2022.02 - 20 credit points	
[MODULE] 3504FETQR Foundation Mathematics for Engineering and Technology 1 Approved 2022.01 - 20 credit points	
[MODULE] 3505FETQR Foundation Mathematics for Engineering and Technology 2 Approved 2022.01 - 20 credit points	
[MODULE] 3506FETQR Introductory Foundation Physics Approved 2022.01 - 20 credit points	
Level 4 - 120 credit points	
Level 4 Core - 120 credit points	CORE
[MODULE] 4500CVQR Engineering Mathematics I Approved 2022.01 - 20 credit points	
[MODULE] 4503CVQR Surveying and CAD Approved 2022.01 - 20 credit points	
[MODULE] 4504CVQR Geotechnics I Approved 2022.01 - 20 credit points	
[MODULE] 4505CVQR Hydraulics Approved 2022.01 - 10 credit points	
[MODULE] 4507CVQR Structural Analysis and Design I Approved 2022.01 - 20 credit points	
[MODULE] 4508CVQR Introduction to Materials I Approved 2022.01 - 10 credit points	
[MODULE] 4509CVQR Infrastructure Design and Skills Project Approved 2022.01 - 20 credit points	
Level 5 - 120 credit points	
Level 5 Core - 120 credit points	CORE
[MODULE] 5500CVQR Materials II Approved 2022.01 - 20 credit points	
[MODULE] 5501CVQR Surveying and Transportation Approved 2022.01 - 20 credit points	
[MODULE] 5502CVQR Engineering Mathematics II Approved 2022.01 - 10 credit points	
[MODULE] 5503CVQR Geotechnics II Approved 2022.01 - 10 credit points	
[MODULE] 5504CVQR Water Engineering Approved 2022.01 - 20 credit points	
[MODULE] 5505CVQR Structural Analysis and Design II Approved 2022.01 - 20 credit points	
[MODULE] 5506CVQR Civil Engineering Project Approved 2022.01 - 20 credit points	
Level 6 - 120 credit points	
Level 6 Core - 120 credit points	CORE
[MODULE] 6502CVQR Applied Geotechnics and Design Approved 2022.01 - 20 credit points	
[MODULE] 6503CVQR Structural Design and Risk Management Approved 2022.01 - 20 credit points	
[MODULE] 6505CVQR Research Project Approved 2022.01 - 40 credit points	
[MODULE] 6506CVQR Water supply and Wastewater Management Approved 2022.01 - 20 credit points	
[MODULE] 6507CVQR Transportation and Infrastructure Approved 2022.01 - 10 credit points	
[MODULE] 6508CVQR Advanced Materials Approved 2022.01 - 10 credit points	

Module specifications may be accessed at <https://proformas.ljmu.ac.uk/Default.aspx>

Approved variance from Academic Framework Regulations

Variance

For module 3500FETQR, students are required to pass all four assessment elements (reading, speaking, listening and writing) with a minimum of 40% before they can pass the module.

Teaching, Learning and Assessment

Teaching includes lectures, tutorials, problem solving sessions, seminars, workshops, laboratory and computer sessions, off-site learning activities (including a surveying field course), participation in a group projects. Case studies from industry practitioners, and the use of real examples from within civil engineering, add to the student knowledge and understanding. Specific work based modules will require the students to analyse and comment on their own work experiences and the techniques and practices to which they are exposed. The main vehicle for the skills development will be through the projects which involve verbal and visual presentations to a panel of experts, backed up by written reports. The major vehicles for practical skills are laboratory work, field work including the surveying field course week, and the research project at level 6. Assessment is by a combination of unseen examinations, open book examinations, assignments, preparation of reports, design tasks, oral presentations, visual presentations, workshops, peer review, computer-based exercises, work placement reports.

Opportunities for work related learning

To put the students' learning into appropriate vocational contexts project modules at all levels are assessed in realistic, industrially relevant contexts. At each level of the course students participate in cross disciplinary project modules and a major design project in the final year, mentored by industry, develops this further.

Entry Requirements

Type	Description
Other international requirements	Thanawaya Aam Qatari (School Leaving Certificate) - average pass mark of 60%+, including relevant subjects. New certificate, QSSC - min. 5 subjects inc. Advanced level, grades A – Ds. and For Level 3 entry IELTS 5.0 overall with a minimum 4.0 in each component. For Level 4 entry IELTS 6.0 overall with a minimum 5.5 in each component. Any English qualifications that are different from the above, but are equivalent will be accepted if Oryx can provide evidence of equivalence. The Faculty Recognition Group will review the evidence and agree this equivalence before students are admitted onto the programme.