

PROGRAMME SPECIFICATION

Higher Diploma in Civil Engineering

Awarding institution	Liverpool John Moores University
Teaching institution	ICBT, Batticaloa ICBT, Colombo ICBT, Kandy ICBT, Southern ICBT, Jaffna
JACS Code	
Programme Duration	Full-Time: 18 Months
Language of Programme	All LJMU programmes are delivered and assessed in English
Subject benchmark statement	Engineering 2015
Programme accredited by	
Description of accreditation	
Validated target and alternative exit awards	Higher Diploma in Civil Engineering Certificate of Higher Education in Civil Engineering
Link Tutor	Karl Jones

Educational aims of the programme

To provide fundamental knowledge in and develop an advanced understanding of the theory and practice of mathematics, civil engineering construction technology, engineering mechanics and strength of materials, site surveying, management of health and safety, geology and soil mechanics, computer aided design, structural analysis and modelling, fluid mechanics and hydraulics, hydrology and structural design in the wider business, built environment and civil engineering sectors.

To provide opportunities for the appreciation and understanding of the significant factors constraining the effective management and development of the built environment and major infrastructure, e.g. physical, legal, economic, sustainable and technological factors.

To provide opportunities for collaborative and individual student-centred study on project tasks that simulate real working practices in order to develop analytical, critical and problem solving skills such that they can define, investigate and analyse problems, form judgements, make decisions and demonstrate the acquisition of such qualities.

To provide the framework within which students can achieve the level of attainment, appropriate to their abilities in the context of the programme of study.

To prepare students for the transition from Higher Education to employment within a professional context; and develop those transferable, specialist and employability skills that all stakeholders could reasonably expect of students who successfully complete a Higher Diploma in Civil Engineering.

To encourage students to engage with the development of employability skills.

Alternative Exit/ Interim Award Learning Outcomes - Certificate of Higher Education

A student who is eligible for this award will be able to:

Demonstrate knowledge of the underlying concepts and principles associated with Civil Engineering, and an ability to evaluate and interpret these within the context of that area of study. Demonstrate an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of Civil Engineering.

Target award Learning Outcomes - Higher Diploma

A student successfully completing the programme of study will have acquired the following subject knowledge and understanding as well as skills and other attributes.

A student who is eligible for this award will be able to:

1. Operate in situations of varying complexity and predictability requiring the application of a wide range of techniques and information sources.
2. Act with limited supervision and direction within defined guidelines, accepting responsibility for achieving personal and/or group outcomes and/or outputs.
3. Have detailed knowledge of well-established theories and concepts.
4. Demonstrate an awareness of different ideas, contexts and frameworks and recognise those areas where the knowledge base is most/least secure.
5. Identify, analyse and communicate principles and concepts, recognising competing perspectives.
6. Undertake research to provide new information and/or explore new or existing data to identify patterns and relationships.
7. Use appropriate theoretical models to judge the significance of the data collected, recognising the limitations of the enquiry.
8. Collect and synthesise information to inform a choice of solutions to problems in unfamiliar contexts.
9. Analyse a range of information, comparing alternative methods and techniques.
10. Select appropriate techniques/criteria for evaluation and discriminate between the relative relevance and significance of data/evidence collected.
11. Identify external expectations and adapt own performance accordingly.
12. Undertake complex and non-routine performance tasks.
13. Analyse performance of self and others and suggest improvements.
14. Interact effectively within a team, giving and receiving information and ideas and modifying responses where appropriate.
15. Recognise and ameliorate situations likely to lead to conflict.
16. Be aware of personal responsibility and professional codes of conduct.
17. Assess own capabilities using justifiable criteria set by self and others taking the wider needs of the context into account.
18. Use feedback to adapt own actions to reach a desired aim and review impact.
19. Adapt interpersonal and communication skills to a range of situations, audiences and degrees of complexity.

Teaching, Learning and Assessment

The methods used to enable outcomes to be achieved and demonstrated are as follows:

Lectures, tutorials, problem solving sessions, seminars, workshops, computer sessions, participation in projects.

Examinations, assignments, preparation of reports, essays, technological reports, oral presentations, workshops, peer review, computer-based exercises.

Programme structure - programme rules and modules

The award of the Higher Diploma in Civil Engineering requires the completion of 120 credits at Level 4 and 120 credits at Level 5.

The award of the Certificate of Higher Education in Civil Engineering requires the completion of 120 credits at Level 4.

Level 5	Potential Awards on completion	Higher Diploma
Core	Option	Award Requirements
5500ICBTCE STRUCTURAL ANALYSIS AND MODELLING (15 credits)		120 core credits at level 5 0 option credits at level 5

5501ICBTCE FLUID MECHANICS AND HYDRAULICS FOR CIVIL ENGINEERING (15 credits) 5502ICBTCE ADVANCED CONSTRUCTION TECHNOLOGY (15 credits) 5503ICBTCE ADVANCED MATHEMATICS (15 credits) 5504ICBTCE CIVIL ENGINEERING HYDROLOGY AND ENVIRONMENTAL SCIENCE (15 credits) 5507ICBTCE CIVIL ENGINEERING STRUCTURAL DESIGN (15 credits) 5510ICBTCE MULTIDISCIPLINARY PROJECT (15 credits) 5511ICBTCE INDIVIDUAL STUDENT PROJECT (15 credits)		
Level 4	Potential Awards on completion	
Core	Option	Award Requirements
4500ICBTCE ENGINEERING MATHS FOR ENGINEERS (15 credits) 4501ICBTCE LEARNING SKILLS (15 credits) 4502ICBTCE CIVIL ENGINEERING CONSTRUCTION TECHNOLOGY (15 credits) 4503ICBTCE ENGINEERING MECHANICS AND STRENGTH OF MATERIALS (15 credits) 4504ICBTCE SITE SURVEYING (15 credits) 4505ICBTCE MANAGEMENT AND HEALTH - SAFETY PRACTICE IN CONSTRUCTION (15 credits) 4506ICBTCE GEOLOGY AND SOIL MECHANICS (15 credits) 4507ICBTCE COMPUTER AIDED DESIGN FOR CIVIL ENGINEERING (15 credits)		120 core credits at level 4 0 option credits at level 4

Information about assessment regulations

All programmes leading to LJMU awards operate within the University's Academic Framework.
<https://www.ljmu.ac.uk/about-us/public-information/academic-quality-and-regulations/academic-framework>

Opportunities for work-related learning (location and nature of activities)

Work-related learning is included within this programme, so students will have the opportunity to engage in real world projects and activities.

The programme has active links with industry and involves employers in the industrial projects, utilising real world case studies wherever possible.

Criteria for admission

A/AS Level

English Language requirements:

Students are required to have a minimum English language level of Sri Lankan General Certificate of Education (Ordinary Level) English Grade C or above, or a pass in the ICBT Academic English Studies course or recognised equivalent, such as the below:

- GCSE/O-Level in English from a UK awarding body grade C
- IGCSE English as a First Language grade C
- IGCSE English as a Second Language grade C
- Internet based TOEFL with an overall score of 72 (UG), 79 (PG) including 17 in Listening, 20 in Writing, 18 in Reading and 18 in Speaking
- Pearson Test of English (PTE)
- International Baccalaureate (Standard Level Grade 5/Higher Level grade 4 in English)
- Cambridge Advanced English Grade C (minimum of “weak” in all four components (listening, reading, speaking and writing)

Mature entry

In exceptional circumstances, candidates with non-standard qualifications, may qualify for entry to the course on the basis of considerable work experience in the construction industry.

Overseas qualifications

Completion of 13 years of formal education in Sri Lanka (or equivalent) and have studied A levels in subjects which will include Maths, a Science or Technology.

Ordinary level qualifications plus the successful completion of a NARIC approved Foundation programme in a civil engineering subject.

A programme of study that is equivalent to a UK level 3 qualification.

External Quality Benchmarks

All programmes leading to LJMU awards have been designed and approved in accordance with the UK Quality Code for Higher Education, including the Framework for Higher Education Qualifications in the UK (FHEQ) and subject benchmark statements where applicable.

The University is subject to periodic review of its quality and standards by the Quality Assurance Agency (QAA) Published review reports are available on the QAA website at www.qaa.ac.uk

Programmes which are professionally accredited are reviewed by professional, statutory and regulatory bodies (PSRBs) and such programmes must meet the competencies/standards of those PSRBs.

Support for students and their learning

The University aims to provide students with access to appropriate and timely information, support and guidance to ensure that they are able to benefit fully from their time at LJMU. All students are assigned a Personal Tutor to provide academic support and when necessary signpost students to the appropriate University support services.

Students are able to access a range of professional services including:

- Advice on practical aspects of study and how to use these opportunities to support and enhance their personal and academic development. This includes support for placements and careers guidance.
- Student Advice and Wellbeing Services provide students with advice, support and information, particularly in the areas of: student funding and financial matters, disability, advice and support to international students, study support, accommodation, health, wellbeing and counselling.
- Students studying for an LJMU award at a partner organisation will have access to local support services

Methods for evaluating and improving the quality and standards of teaching and learning

Student Feedback and Evaluation

The University uses the results of student feedback from internal and external student surveys (such as module evaluations, the NSS and PTES), module evaluation questionnaires and meetings with student representatives to improve the quality of programmes.

Staff development

The quality of teaching is assured through staff review and staff development in learning, teaching and assessment.

Internal Review

All programmes are reviewed annually and periodically, informed by a range of data and feedback, to ensure

quality and standards of programmes and to make improvements to programmes.

External Examining

External examiners are appointed to programmes to assess whether:

- the University is maintaining the threshold academic standards set for awards in accordance with the FHEQ and applicable subject benchmark statements
- the assessment process measures student achievement rigorously and fairly against the intended outcomes of the programme(s) and is conducted in line with University policies and regulations
- the academic standards are comparable with those in other UK higher education institutions of which external examiners have experience
- the achievement of students are comparable with those in other UK higher education institutions of which the external examiners have experience

and to provide informative comment and recommendations on:

- good practice and innovation relating to learning, teaching and assessment observed by external examiners
- opportunities to enhance the quality of the learning opportunities provided to students

Please note:

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content, teaching, learning and assessment methods of each module can be found in module and programme guides.