

Overview

Programme Code	36620
Programme Title	Sustainable Construction Design
Awarding Institution	Liverpool John Moores University
Programme Type	Level 3/4/5 Qualification
Language of Programme	All LJMU programmes are delivered and assessed in English
Programme Leader	
Link Tutor(s)	Graham Sherwood

Partner Name	Partnership Type
Nelson and Colne College Group	Validated

Awards

Award Type	Award Description	Award Learning Outcomes
Target Award	Higher National Diploma - HND	See Learning Outcomes Below
Recruitable Target	Higher National Certificate - HNC	Recognise the responsibility that Construction professionals have in designing, creating and maintaining a sustainable built environment, and how this can be discharged Demonstrate knowledge and understanding of the various disciplines that underpin the study of construction and its sustainability Demonstrate awareness of the context in which the construction industry and its associated professions operate, including environmental, social, economic, legal, financial and cultural influences. Recognise the need to consider health, safety and welfare issues at all stages of construction projects from inception, development, adaptation, refurbishment and the management of completed building through to demolition and site restoration. Demonstrate a detailed knowledge of the established concepts, theories and principles of the technology and environmental design of buildings and their services, including structural form and construction materials Solve numerical problems using first principles, computer-based and other techniques. Analyse, synthesise and summarise information from a variety of sources Interpret construction drawings, produce sketches of buildings and building components. Assess the performance and properties of building materials and evaluate the design of structural elements. Communicate accurately, clearly, concisely, confidently and appropriately to a variety of audiences using a range of formats and employing appropriate scientific and/or professional discipline-specific language Make effective use of IT

Alternate Award Names

External Benchmarks

Subject Benchmark Statement
UG-Land, Construction, Real Estate and Surveying (2019)

Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length
Part-Time, Face to Face	January	Accrington Campus, Nelson and Colne College	4 Years

Part-Time, Face to Face	September	Accrington Campus, Nelson and Colne College	4 Years
-------------------------	-----------	---	---------

Aims and Outcomes

Educational Aims of the Programme

The general aims of the programme are: • To provide students with the knowledge, skills, techniques and behaviours needed to support a career as a professional in construction and to do so with a clear focus on sustainability and environmental considerations. • To provide a structured ladder of progression including well-rounded and valuable qualification at levels 4 and 5, tailored to the needs of local and regional employers, and supporting progression routes to level 6 and beyond. • To prepare students to work in an environment characterized by rapid change and the need to use knowledge and make judgements slightly beyond the taught syllabus. • To provide students with the maximum practicable flexibility of study (in terms of study mode, timescales and recognition of prior learning) thus enabling them to match their study commitments to personal needs and aspirations.

Learning Outcomes

Code	Description
PLO1	Recognise the responsibility that Construction professionals have in designing, creating and maintaining a sustainable built environment, and how this can be discharged
PLO2	Use specialist software to produce accurate representations of buildings and building components, and to produce accurate, annotated construction details.
PLO3	Evaluate construction projects in terms of costs and value
PLO4	Assess the performance and properties of building materials and evaluate the design of structural elements.
PLO5	Communicate accurately, clearly, concisely, confidently and appropriately to a variety of audiences using a range of formats and employing appropriate scientific and/or professional discipline-specific language
PLO6	Make effective use of IT
PLO7	Interact effectively within a group, identify targets in consultation with others within a group, and establish responsibilities and working arrangements.
PLO8	Reflect on own performance, evaluate own capabilities, set personal targets and plan to achieve those targets
PLO9	Demonstrate knowledge and understanding of the various disciplines that underpin the study of construction and its sustainability
PLO10	Demonstrate awareness of the context in which the construction industry and its associated professions operate, including environmental, social, economic, legal, financial and cultural influences.
PLO11	Recognise the need to consider health, safety and welfare issues at all stages of construction projects from inception, development, adaptation, refurbishment and the management of completed building through to demolition and site restoration.

Code	Description
PLO12	Demonstrate a detailed knowledge of the established concepts, theories and principles of the technology and environmental design of buildings and their services, including structural form and construction materials
PLO13	Solve numerical problems using first principles, computer-based and other techniques.
PLO14	Analyse, synthesise and summarise information from a variety of sources
PLO15	Prepare, process, interpret and present information and data, using appropriate qualitative and quantitative techniques and packages
PLO16	Interpret construction drawings, produce sketches of buildings and building components.

Programme Structure

Programme Structure Description

The part-time delivery of this programme is by infilling into sessions shared with full-time students, with all students taking a module sharing taught sessions and assessments. None of the modules within a level rely on knowledge delivered at the same level; level 4 modules rely solely on knowledge on entry and level 5 modules only on material covered at level 4. This means that the modules within each level can be taken in any order that timetabling constraints permit. It is, however, an absolute requirement that students have attempted all aspects of level 4, achieving at least 100 credits, before level 5 is attempted. For modules with practical competencies, students will be given multiple opportunities to demonstrate competency. A student who achieves a pass mark in the module but who has not yet demonstrated competency will be required to demonstrate competency before credit can be released. It will not be recorded as a failed attempt.

Structure - 240 credit points	
Level 4 - 120 credit points	
Level 4 Core - 120 credit points	CORE
[MODULE] 4533NCCG Science and Materials for Sustainable Construction Approved 2022.01 - 20 credit points	
[MODULE] 4534NCCG Construction Sustainability Approved 2022.01 - 20 credit points	
[MODULE] 4535NCCG Individual Construction Project Approved 2022.01 - 20 credit points	
[MODULE] 4536NCCG Digital Technology for Construction Approved 2022.01 - 20 credit points	
[MODULE] 4539NCCG Construction Refurbishment Design Approved 2022.01 - 20 credit points	
[MODULE] 4540NCCG Construction Technology Approved 2022.01 - 20 credit points	
Level 5 - 120 credit points	
Level 5 Core - 120 credit points	CORE
[MODULE] 5540NCCG Group Construction Project Approved 2022.01 - 20 credit points	
[MODULE] 5541NCCG Procurement Approved 2022.01 - 20 credit points	
[MODULE] 5542NCCG Surveying in Construction Approved 2022.01 - 20 credit points	
[MODULE] 5543NCCG Work-Based Project Approved 2022.01 - 20 credit points	
[MODULE] 5546NCCG Specification and Drawing Approved 2022.01 - 20 credit points	
[MODULE] 5547NCCG Construction Design for Complex Buildings Approved 2022.01 - 20 credit points	

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

Approved variance from Academic Framework Regulations

Variance

Some modules within this programme contain assessed practical work that does not contribute to the module mark but that must be completed satisfactorily for the module credit to be awarded. (Approved 28 July 2021)

Teaching, Learning and Assessment

Key themes of the teaching and learning strategy on this programme are:

- Varied assessment and feedback to enhance the experience of the student.
- The availability of flexible teaching and learning modes, using face to face, on-line and blended learning.
- Student support through the use of structured and targeted tutorials.
- The development and application of theory into practice.
- The use of inclusive learning methods
- Development of students' practical skills.

The teaching and learning throughout the programme will follow the expectations of the QAA benchmark statement for Land, Construction, Real Estate and Surveying 2019. Teaching sessions will allow for the introduction of new skills, techniques, concepts and theories to enable students to develop their own practice further. Learning and teaching opportunities will be designed to allow for the transfer of learning between the different modules and the integration of theory with practice. Students will learn to produce employment-relevant outcomes, presentations, reports and projects. Students will be expected to think of themselves as independent learners, encouraged by using flexible teaching methods and varied methods of assessment. There is has a mandatory synoptic task at each level. At level 4 this is an individual project and at level 5 it is a group project. There is considerable diversity of delivery needs among the likely candidates for this programme. These include

- Traditional full-time learners, mainly students progressing internally from level 3 awards
- Day-release part-time learners, mainly those on day release from partner employers
- Evening class students, principally either those in construction employment whose employers will not release them during the day or those in other employment wishing to retrain to work in the construction sector
- Those unable to study on a week-by-week basis but who could attend in week-long blocks
- Those who wish to offset RPEL of their previous studies or experience against module learning outcomes.

This programme is intended to meet all of these needs. While the mode and timing of delivery may vary, all students will be assessed against the same learning outcomes and will have the same skills on exit. This programme is designed to use a variety of different assessment methods to ensure that all students, of whatever preference in assessment, have the opportunity to demonstrate their achievement of learning outcomes. Assessment is designed to be both formative, in building knowledge and skills, and summative in assessing whether and to what extent required outcomes have been met. At level 4, assessment is focused on evidencing that necessary knowledge and skills have been acquired. Level 4 modules typically have two assessments of different types. One may be designed simply to ensure that particular knowledge, skill and experience has been gained but all modules include a graded task in which the extent of a student's level of attainment can be judged. Students entering this programme will generally not have experienced a formal examination since GCSE, which for some will have been many years ago. For this reason, there are no formal, written examinations at level 4. Assessment at level 5 is focussed on evidencing the greater level of intellectual skill required rather than the acquisition and application knowledge. At level 5, students are expected to have matured academically and some level 5 modules are assessed in part by formal examinations. This is principally to prepare students who may wish to progress to honours level for the assessment diet they are likely to experience later. In order to reflect the fact that Construction professionals seldom work without access to data, examinations are 'open-book' and focussed on the application of knowledge rather than the recall of material learned by rote.

Opportunities for work related learning

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. As this is a part time programme, students will apply knowledge attained in their employment to their academic studies.

Entry Requirements

Type	Description
------	-------------

Alternative qualifications considered

Candidates are selected on the basis of their ability to cope with and benefit from the programme. Their suitability can be demonstrated either through previous educational achievement or through experience and aptitude. Admission by prior qualification will normally require a minimum 48 UCAS Tariff points with the majority of the points gained in construction subjects. Typically, points can be derived from:

- o One GCE A level or Vocational A level pass or equivalent
- o Two AS level passes
- o BTEC National Diploma/Certificate
- o Other qualifications such as Scottish Highers, Welsh Baccalaureate, Irish Leaving Certificates, International Baccalaureate, with the required UCAS points
- o A pass in a recognised Access course
- o Equivalent Scottish or Irish qualifications

Admission by experience and aptitude will be based on the length and type of the candidate's employment experience and his/her ability to demonstrate an aptitude and enthusiasm for the subject. As part of this process, candidates may be required to undertake aptitude tests and/or to provide personal and/or employment references. Maths & English Grade C and above, or equivalent, should be held as well as basic IT skills. Candidates whose first language is not English will be required to demonstrate English language competence equivalent to IELTS 5.5 or higher.

Extra Entry Requirements