

**Overview**

Programme Code	36409
Programme Title	Electronics and Electrical Engineering
Awarding Institution	Liverpool John Moores University
Programme Type	Top-up

**Awards**

Award Type	Award Description	Award Learning Outcomes
Target Award	Bachelor of Engineering with Honours - BGH	N/A

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 Programme Length Unit
Part-Time, Face to Face	September	LJMU Taught	2 Years

## Aims and Outcomes

Educational Aims of the Programme	<p>The BEng. top up programme in Electrical Engineering is designed to develop a high level of technical expertise together with the emotional intelligence to be able to practice successfully as a professional engineer in a modern interdisciplinary engineering environment. New graduate engineers are increasingly expected to take on important technical leadership and management responsibilities early in their careers and the knowledge and skills gained from this programme are designed to produce graduates who are able to make an immediate contribution to their employers organisations. The programme aims to: Provide a programme of study, which develops core knowledge, and understanding of engineering principles, mathematics, and computation, appropriate to the field of Electrical and Electronic engineering. Enable students to develop specialist knowledge, intellectual and practical skills that will enable them to analyse, investigate and develop robust solutions to Electrical and Electronic engineering problems. Develop relevant study and personal skills so that students progressively take responsibility for their learning, becoming, independent learners, while receiving appropriate tutoring and support. Equip students with a range of transferable skills and attributes in the use of computers, software packages, team working, communication, time management and problem solving methodology which will enable them to undertake responsible roles in industry and commerce. Provide a degree programme which meets the needs of industry. Develop Students to work in and manage teams and also work independently at managerial level utilising project management and technical skills. To encourage students to engage with the development of employability skills by completing a self-awareness statement. For students undertaking a placement year the aim is to provide students with an extended period of work experience at an approved partner that will complement their programme of study at LJMU. This will give the students the opportunity to develop professional skills relevant to their programme of study, as well as attitude and behaviours necessary for employment in a diverse and changing environment.</p>
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## Learning Outcomes

Code	Number	Description
PLO1	1	Maintain and extend a sound theoretical approach to the application of technology in engineering practice
PLO2	2	Communicate in English with others at all levels.
PLO3	3	Present and discuss proposals.
PLO4	4	Demonstrate personal and social skills.
PLO5	5	Comply with relevant codes of conduct.
PLO6	6	Manage and apply safe systems of work.
PLO7	7	Undertake engineering activities in a way that contributes to sustainable development.
PLO8	8	Manage and record CPD necessary to maintain and enhance competence in own area of practice
PLO9	9	Demonstrate exercising responsibilities in an ethical manner.

PLO10	10	Use a sound evidence-based approach to problem-solving and contribute to continuous improvement.
PLO11	11	Identify, review and select techniques, procedures and methods to undertake engineering tasks.
PLO12	12	Contribute to the design and development of engineering solutions.
PLO13	13	Implement design solutions and contribute to their evaluation.
PLO14	14	Plan for effective project implementation.
PLO15	15	Manage tasks, people and resources to plan and budget.
PLO16	16	Manage teams and develop staff to meet changing technical and managerial needs.
PLO17	17	Manage continuous quality improvement.

## Course Structure

Programme Structure Description

<b>Programme Structure - 120 credit points</b>	
<b>Level 6 - 120 credit points</b>	
<b>Level 6 Core - 120 credit points</b>	CORE
[MODULE] 6355ELE Engineering Project Approved 2022.01 - 30 credit points	
[MODULE] 6305ELE Power Electronics, Drives and Systems Approved 2022.01 - 20 credit points	
[MODULE] 6312ELE Process Control Approved 2022.01 - 20 credit points	
[MODULE] 6301ELE Signal Processing Approved 2022.01 - 20 credit points	
[MODULE] 6300ELE Automation Approved 2022.01 - 10 credit points	
[MODULE] 6365ELE Industrial Management Approved 2022.01 - 20 credit points	

### Approved variance from Academic Framework Regulations

Variance

The following criteria will apply for students at Level 6: Where a module comprises two or more assessment elements (e.g. examination and coursework), successful completion of the module should require a mark of greater than 10% less than the module pass mark in each element, as well as the overall module mark being above the normal pass mark (normally 40% or 50%). This requirement only applies to assessment elements that contribute more than 30% towards the final module mark.

## Teaching, Learning and Assessment

Teaching, Learning and Assessment	Acquisition of underpinning knowledge is achieved mainly through lectures and directed student-centred learning. Student-centred learning is used where appropriate resource material is available. The economic, Social and Environmental context of engineering operations is delivered by means of lectures and case studies. The use of appropriate case study material is an essential part of teaching in this area. Testing of the knowledge base is through a combination of unseen written examinations, and coursework assignment submissions. Engineering Analysis is developed through lectures, case-studies and coursework assignments. Fundamental principles are delivered predominantly by lectures and laboratory classes. More advanced techniques are delivered by project work and coursework supported by lectures. Engineering Analysis and problem solving skills are assessed through a combination of unseen written examinations, assessed coursework and laboratory work, and project work Design is taught by coursework, individual and group project work supported by an appropriate lecture programme. Design skills are assessed by coursework, individual and group written design project reports, and student presentations. Engineering Practice permeates almost every activity within the programme content and assessment. Assessment of Engineering Practice is varied throughout the programme but is mostly coursework based.
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## Entry Requirements

Type	Description
NVQ	Applicants should have a BTEC HND or equivalent with at least a Merit in the following subject areas: Electrical and Electronic Principles Further Mathematics Embedded Systems Further Electrical , Electronic and Digital Principles Industrial Power, Electronics and Storage
Other international requirements	Other Applicants offering other awards (e.g. Welsh Baccalaureate, European Baccalaureate, pre-2002 BTEC National Certificate/Diploma, Advanced Extension Awards, pre-curriculum 2000 A-levels etc.) or combinations of unit awards may also be accepted.
Alternative qualifications considered	Applicants should have five GCSE (or equivalent) passes of at least grade C including Mathematics and English (or IELTS 6.0). We welcome applications from highly motivated mature students with relevant experience but without the necessary formal qualifications. All applications will be considered on an individual basis.
BTECs	Applicants should have a BTEC HND or equivalent with at least a Merit in the following subject areas: Electrical and Electronic Principles Further Mathematics Embedded Systems Further Electrical , Electronic and Digital Principles Industrial Power, Electronics and Storage

## Programme Contacts

### Programme Leader

Contact Name
Clifford Mayhew

### Link Tutor

Contact Name