













# **ELECTRICAL AND ELECTRONIC**

# **ENGINEERING**

**BEng (HONS)** 

The products and services we use in everyday life would not exist unless an electrical and electronic engineer had designed the relevant parts. Electrical and electronic engineers are concerned with making our products faster, cheaper, smaller and better.

#### **OVERVIEW**

- Available as BEng qualification
- Design-led engineering curriculum emphasises, with design projects supplied by industrial partners.
- State-of-the-art labs and excellent technical support.
- Accredited by the Institution of Engineering and Technology, UK.
- Regular contributions from professional engineers and industrial professionals.

# PROGRAMME STRUCTURE

#### Level 4

Engineering Principles, Microprocessors and Software, Electrical Circuit Principles, Digital and Analogue Electronics, Electrical Engineering Practice, Engineering Mathematics 1a, Engineering Mathematics 1b

#### Level 5

Digital and Embedded Systems, Electric Machines, Linear Electronics, Control System Design and Analysis, Electrical Engineering Practice, Applied Instrumentation, Engineering Mathematics 2

#### **Placement Year**

Placement year helps students prepare for the upcoming demand of the industry. It can help you to explore potential career paths and provide you with valuable work experience, whilst developing transferable skills for the future. Key features of the placement year are:

- Enhance your career prospects.
- Expand your network.
- Discover the real working world.
- Improve your academic Performance.
- Develops skills and builds confidence

#### Level 6

Automation, Signal Processing, Power Electronics, Drives and Systems, Process Control, Engineering Project, Industrial Management

# **ELIGIBILITY**

- Age 17+ by 30 November in the year of registration.
- A' Level 112 UCAS points with minimum grade C in Mathematics and one of the following subjects ((Physics, Chemistry, Computing, Further Maths, Engineering)

or

 BTEC Award (provided grade DMM or above is achieved) in an Engineering discipline with a distinction grade in the Further Mathematics unit.

or

Any other relevant high school qualifications

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- HSSC at 75% overall marks with 70% marks in Mathematics
- Provide proof of competence in English and Mathematics by having UK GCSE/GCE 'O' level at grade C. Otherwise a test of proficiency may be required.

The Electrical and Electronic Engineering course has exceeded my expectations. It has delivered more than I anticipated and I have been left with a promise of greater things to come.

**Shaheer Tausif** Current Student

95%

OF STUDENTS IN WORK OR FURTHER STUDY WITHIN 6 MONTHS OF GRADUATION

# MECHANICAL ENGINEERING



BEng (HONS)

In a rapidly changing world, mechanical engineers are in demand more than ever before to design and build the new generation of engines, power plants, structures and vehicles that keep the world running.

#### **OVERVIEW**

- Available as BEng qualification.
- Professionally-accredited, designled engineering curriculum.
- Teaching is supported by well-equipped laboratories and workshops.
- Industrial visits provide insights into careers in professional engineering.

### PROGRAMME STRUCTURE

#### Level 4

Engineering Mathematics 1a; Engineering Mathematics 1b; Applied Mechanics 1; Thermodynamics and Fluid Mechanics 1; Materials; Engineering Practice 1; Electrical and Electronic Engineering

# Level 5

Engineering Mathematics 2; Materials and Processes; Applied Mechanics; Thermodynamics and Fluid Mechanics; Mechanical Engineering Design 2; Engineering Practice 2; Mechatronics

# **Placement Year**

Placement year helps students prepare for the upcoming demand of the industry. It can help you explore potential career paths and provides a valuable work experience, whilst developing transferable skills for the future. Key features of the placement year.

- Enhances career prospects.
- Expands networking opportunities.
- Discover the real working world.
- Improve your academic performance.
- Develops skills and builds confidence.

# Level 6 (core)

Engineering Project; Engineering Analysis; Mechanical Engineering Design 3; Industrial Management.

## **ELIGIBILITY**

- Age 17+ by 30 November in the year of registration.
- A' Level 112 UCAS points with minimum grade C in Mathematics and one of the following subjects ((Physics, Chemistry, Computing, Further Maths, Engineering)

Or

 BTEC Award (provided grade DMM or above is achieved) in an Engineering discipline with a distinction grade in the Further Mathematics unit.

or

HSSC at 75% overall marks with 70%

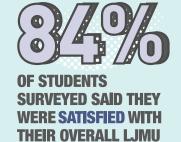
• marks in Mathematics

or

- Any other relevant high school qualifications
- Provide proof of competence in English and Mathematics by having UK GCSE/GCE 'O' level at grade C. Otherwise a test of proficiency may be required.

Outstanding faculty, state-of-the-art campus, well-equipped laboratories and a variety of industry-demanding course offerings are the key elements that categorize the LJMU Department of Electronics as one the best-in-class schools in the region.

Baleegha Fatima Current Student



STUDENT EXPERIENCE
National Student Survey (NSS) 2018\*\*

# **SOFTWARE ENGINEERING**

**BSc (HONS)** 



Software engineering is the art/technique of developing and maintaining software systems that are reliable, efficient, maintainable and affordable.

# **OVERVIEW**

- BSc (Hons) Software Engineering is a practical hands -on qualification, encouraged to bost employment prospects as it enhances proficiency in programming languages and equiping learners to apply it to a variety of problems.
- State-of-the-art computing facilities, including dedicated labs, available to students.
- Excellent career prospects.

### PROGRAMME STRUCTURE

#### Level 4

Programming, Computer Systems, Professional Practice, Data Modelling, Software Engineering Principles, Software Engineering Workshop, Web Development

### Level 5

Database Systems, Object-Oriented Systems, Data Structures, Automate, Languages and Computation, Mobile and Web Development

# Level 6

User Experience Design, Virtualisation and Cloud Computing, Embedded Systems, Applied Data Science, Individual Project

# **EXPLORE THE WORLD**

Did you know that LJMU students have the opportunity to discover more about the world by studying, working or volunteering abroad? Whether you are looking to enhance your degree, improve your employability or want to have a life-changing experience, LJMU opens the pathways for you

# **ELIGIBILITY**

#### A/AS Level

Applicants should have 112 UCAS tariff points including a minimum of 64 points from Maths and one of the following: Physics, Chemistry, Computing, Further Maths, Electronics or Engineering

#### **BTEC National Diploma**

BTEC National Diploma BTEC Extended Diploma - DMM / Engineering discipline required with a Distinction grade in Further Mathematics unit.

# International Baccalaureate

Overall 26 points

#### **Local Qualifications**

Entry to level 4 requires a 75% overall award mark mathematics passed at 70% or above in final year, passes in physics and chemistry.



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