

# BENG (HONS) IN **SUSTAINABLE ENGINEERING**

Loughborough College is excited to be able to offer our new BEng (Hons) degree in Sustainable Engineering validated and awarded by Loughborough University. This is a prestigious opportunity to study for a degree awarded by one of the premier engineering universities in the supportive environment of Loughborough College.

## **Awarded By:**



## **COURSE CONTENT**

The degree will cover all the fundamental principles of mechanical and electrical/electronic engineering, with each aspect – ranging from fluid mechanics and thermodynamics to power transmission and microcontrollers – being focused on the impact of products, systems and processes on the environment and on making those products (and their manufacture, packaging and distribution) more sustainable. The latter stages of the course will cover cutting-edge 21st century technologies – smart materials, smart manufacturing, Internet of Things, Industry 4.0, simulation and virtualisation – mainly through problem-based learning.

## **MODULES**

### **YEAR 1**

- Engineering Mathematics
- Sustainable Engineering Design
- Fundamental Professional Skills: CAD and Programming
- Mechanical Principles
- Electrical Principles
- Electronic Principles

### **YEAR 2**

- Power Electronics
- Smart Materials
- Automation, Robotics and Mechatronics
- Renewable Energy
- Virtual Engineering and Simulation and Project Management
- Enterprise and Innovation

## YEAR 3

- Systems and Control
- Smart Manufacturing
- Smart Energy Networks
- Sustainability and Environmental Engineering
- Independent Project

\*Please note that these modules may be subject to change and are run subject to student numbers and staff availability, any changes will be communicated to applicants accordingly.

### **ENTRY REQUIREMENTS**

[96 UCAS tariff points.](#)

CCC at A Level (including Maths or Physics) or MMM in an Engineering related BTEC (including Further Maths).

GCSE Maths and English Grade C level 4, GCSE Science/physics or chemistry Grade C or level 4