Faculty of Computing, Engineering and the Built Environment

BIRMINGHAM CITY University

Automotive Engineering
BEng (Hons)

COURSE FACTS

Faculty	Computing, Engineering and the Built Environment
School	Engineering, Design and Manufacturing Systems
Application	Apply through UCAS. Institution code B25, Course code H330
Location	City Centre Campus, Millennium Point
Duration	Full-time: three years, part-time: five years, sandwich: four years

KEY FACTS

- This course provides practical knowledge directly relevant to the automotive industry's current and expected future needs, making you a credible, confident and valuable member of any professional team. It blends a study of design, drivetrain, vehicle body and engineering systems with modelling and simulation work, as well as key business and professional themes.
- It is accredited by the Institution of Mechanical Engineers (IMechE) and the Institution of Engineering and Technology (IET) as partially satisfying academic requirements towards Chartered Engineer status (CEng).

WHY CHOOSE US?

- Our School of Engineering, Design and Manufacturing Systems has strong academic and research links with business and industry, such as Morgan Motor Company, and works with globally respected technology partners.
- Located in the prestigious £114 million City Centre Campus at Millennium Point, with technology and facilities that reflect advanced professional practice. Advanced automotive workshops and laboratories provide the spark and ignition for theoretical learning, including CNC, 3D scanning and rapid prototype facilities, engine test labs and reverse engineering.
- Our relationships with a number of sector bodies, including the Chamber of Commerce, the Niche Vehicle Partnership and the Motorsport Industry Association, directly benefits you by exposing you to 'real' live projects.
- You will have the opportunity to take part in an optional sandwich placement in Year 2.

COURSE OVERVIEW

The course aims to provide a stimulating environment in which your interest in automotive engineering is fostered by a modern and flexible teaching and learning strategy. The curriculum satisfies the requirements of UK SPEC and its delivery is characterised by the application of industrial-standard modelling and simulation systems for analysis and design.

www.bcu.ac.uk/edms

IET Collective inspiration

Institution of MECHANICAL ENGINEERS

YEAR 1				
Engineering Design 30 Credits	Applied Mechanics 30 Credits	Mathematical Analysis 30 Credits	Material and Manufacture 15 Credits	Applied Thermodynamics 15 Credits

YEAR 2				
Suspension and Chassis 30 Credits	Mechanics and Dynamics 30 Credits	Engine and Drivetrain 30 Credits	Numerical Analysis 15 Credits	Management of Engineering and Technology Innovation 15 Credits

YEAR 3					
Individual Project 30 Credits	Advanced Engineering Analysis 30 Credits	Body Engineering 15 Credits	Dynamics and Control 15 Credits	Hybrid Vehicles 15 Credits	Design Management 15 Credits

COURSE STRUCTURE

The course structure provides a general automotive engineering foundation with specific themes in suspension, body engineering and drivetrain systems.

An understanding of legal, ethical and environmental factors associated with automotive engineering is coupled with a range of transferable and marketable skills and knowledge leading to a variety of employment opportunities within the automotive and associated industries. Teaching and learning techniques place emphasis on active and participative education, leading to a qualification that satisfies accreditation requirements of relevant professional bodies and provides an opportunity to acquire skills for lifelong learning.

ASSESSMENT

A range of assessment methods are used throughout the course including continuous assessment, in-class tests, examinations, laboratory exercises and project work.

ENTRY REQUIREMENTS

- 280 points. Minimum of two six-unit or one 12-unit A-Level (GCE or VCE) including Maths at AS level
- Pass National Diploma with Distinction Merit Merit
- A Distinction in Maths for Technicians Unit or a Merit in Further Maths for Technicians Unit
- Advanced Diplomas with Mathematics for Engineers additional unit are accepted
- Irish: BBCCCC Highers including Maths,
- Scot: BBBCCC Highers inc Maths, AB Adv. Highers including Maths
- IB: 30pts (including eight Highers including Maths)

FURTHER STUDY

The University has a range of either taught (MSc) or research (MPhil and PhD) postgraduate programmes. Details can be found on the postgraduate section of the website.

EMPLOYABILITY

This course attracts highly committed and competitive students. Typically, our graduates gain successful employment in the automotive, aerospace and motorsports industries.

Some graduates choose to enter other industries, as their creative problem-solving capabilities are highly sought after. Others successfully apply to study for higher degrees.

Birmingham City University,
Faculty of Computing, Engineering and the Built Environment, Curzon Street, Millennium Point, Birmingham, B4 7XG

For enquiries:
T: +44 (0)121 331 5595
F: +44 (0)121 331 7994
W: www.bcu.ac.uk/enquiries

TEE-0914