



STAFFORDSHIRE
UNIVERSITY

THEORETICAL

$$\sigma_r = P \frac{r_i^2}{r_o^2 - r_i^2} \left[1 - \frac{r_o^2}{r^2} \right]$$

$$\sigma_\theta = P \frac{r_i^2}{r_o^2 - r_i^2} \left[1 + \frac{r_o^2}{r^2} \right]$$

UNDERGRADUATE
COURSE INFORMATION

BEng(Hons)/MEng

Mechanical Engineering

UCAS Code:
H300

Key Facts

Faculty of Computing,
Engineering and
Technology

Location:
Stafford Campus

Duration:
BEng(Hons), 3 years
full-time
4 years with placement
year
MEng, 4 years full-time
5 years with placement
year

Entry requirements:
Typical offer: 240 UCAS
points.
A levels: CCC or CDD
plus C at AS. Must
have a pass in A level
Mathematics, Physics
or related engineering
subject.
BTEC: MMM in an
Engineering discipline.
Detailed entry
requirements can be
found on each of our
online course pages or by
visiting [www.staffs.ac.uk/
ugentryrequirements](http://www.staffs.ac.uk/ugentryrequirements)

Accredited by:
the IMechE and IET

Institution of
**MECHANICAL
ENGINEERS**



Collective **inspiration**

At-a-glance

This award is designed to prepare you for a wide range of career opportunities in the mechanical design, development and application sectors. Mechanical engineers are able to model engineering systems and predict system behaviour. Students develop an understanding of business management principles and the role of the mechanical engineer when working within a process to provide a product or service that meets a specific demand.

This award focuses on key engineering skills through the use of examples and problem-based learning and the application to relevant areas such as product design, process design and system analysis and modelling. The techniques used by all engineers are taught throughout our entire engineering programme. Study focuses on the mechanical design process, materials, thermodynamics, business and programming. Optional specialist modules include Power Plant and Clean Technology. There is an optional industrial placement between Years 2 and 3. This provides additional experience and further enhances your employability. If you decide to follow the BEng(Hons) route, Year 3 will include a major individual project.

Progress to MEng in Year 4 and you'll choose from a range of Masters level modules such as Energy Management, Stress Analysis, Design, as well as undertaking an individual investigative project to design, manage and implement a specialised programme of work.

Course Outline

Year 1

- Essential Mechanics and Fluids
 - Essential Electronics, Mathematics
 - Instrumentation and Measurement
 - Mechanical Principles
 - Thermodynamics
 - Software for Engineers
 - Design Principles
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Year 2

- Fluid Systems
 - Engineering Design Project
 - Engineering Maths
 - Engineered Materials
 - Mechanical Systems
 - Management in Organisations
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Optional placement year

Year 3 (final year of the BEng(Hons) award)

- Stress Analysis
 - Powerplant
 - Professional Engineer
 - Vibration Analysis
 - Individual Project
 - Clean Technology
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Those wishing to pursue the MEng award in Year 3 will study a group project

Year 4

- Individual Project
- Research Methods for Engineers
- Design Technologies for Masters

Option modules include:

- Advanced Design Strategies
 - Applied Structural Integrity
 - Sustainable Design for Manufacture
 - Control Systems Design
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WHY STUDY AT STAFFORDSHIRE UNIVERSITY?

We have a reputation for preparing students to take on the world. Our courses deliver the skills and experiences employers value. Our lecturers know what it is you need to succeed in business because they're industry professionals. What we teach is not only quality assured but informed by the latest thinking and developments in the real world. And with excellent facilities, a lively social scene, and low cost of living, Staffordshire University is a great place to be a student.

The information in this leaflet is correct at the time of publication, but may be subject to change.

For the latest information visit www.staffs.ac.uk/undergraduate or call our enquiries team on 01782 294400.

Detailed entry requirements can be found on each of our online course pages or by visiting www.staffs.ac.uk/ugentryrequirements

For full, up-to-date details of our degrees and other courses, visit: www.staffs.ac.uk/undergraduate

For lots of friendly help and advice:
Call: 01782 294400
Email: enquiries@staffs.ac.uk

■ CREATE THE DIFFERENCE