

BEng (Hons) Mechanical Engineering

Mechanical, Materials and Manufacturing Engineering / Faculty of Science and Engineering

Year 1 Modules

The preliminary year is designed to help you develop your English language skills so that you can make the most of your degree programme.

This special English language programme designed by the English for Academic Purposes experts at the University's Centre for English Language Education is carefully integrated with academic content modules so that you are prepared fully for years two to four of your degree programme.

Module Code	Module Title	Credits
CELEF008	Introduction to Academic Skills	10
CELEN038	The Scientific Method	10
CELEF005	Foundation Algebra	20
CELEN056	Electricity and Magnetism	10
CELEN057	Foundation Mechanics	10
CELEF003	Foundation Calculus	20
CELEF006	English for Specific Academic Purposes: Science and Engineering	10
CELEN040	Foundation Science B: Chemistry	15
CELEN058	Further Foundation Mechanics	15

Year 2 Modules

Year two and three provide a grounding in the broad fundamentals of mechanical engineering science and engineering design. The science subjects studied include thermodynamics, fluid mechanics, solid mechanics, dynamics and electro-mechanical systems. In design, the emphasis is on project work and in both the first and second years, you will undertake a design, make and test project, which you will manufacture in the department's student workshop.

Module Code	Module Title	Credits
MMME1019	Thermodynamics & Fluid Mechanics 1	20
MMME1039	Statics and Dynamics	20
MMME1044	Engineering Design and Design Project	20
MMME1043	Materials and Manufacturing	20

MMME1042	Mathematics for Engineers	20
MMME1041	Programming, Professional and Laboratory skills	20

Year 3 Modules

Module Code	Module Title	Credits
MMME2015	Materials in Design	10
MATH2045	Advanced Mathematics and Statistics for Mechanical Engineers	10
MMME2014	Dynamics and Control	20
MMME2017	Thermodynamics & Fluid Mechanics 2	20
MMME2038	Mechanics of Solids	20
MMME2042	Design, Manufacture and Project	20
MMME2012	Engineering Management 1	10
MMME2027	Electromechanical Devices	10

Year 4 Modules

A major individual project makes up a quarter of your studies. This may involve computational and or experimental investigations often related to research activities within the department. You will also study a mix of compulsory and optional modules, the latter allowing you to tailor the course to your interests.

Compulsory Modules

Module Code	Module Title	Credits
MMME3026	Computer Modelling Techniques	20
MMME3023	BEng Individual Project	40
MMME3030	Engineering Management 2	20

Optional Modules

Module Code	Module Title	Credits
MMME3024	Computer Aided Engineering	10
MMME3040	Advanced Dynamics and Vibration	20

MMME3038	Thermofluids 3	20
MMME3025	Control and Instrumentation	10
MMME3036	Fibre Reinforced Composites Engineering	10
MMME3039	Stress Analysis and Material Models	20