

BEng (Hons) Aerospace Engineering

School of Aerospace/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

The qualifying year takes students with backgrounds in science and mathematics and introduces the fundamental engineering sciences including thermodynamics, basic electricity, and fluid mechanics. Introductory aerodynamics and aircraft design fundamentals are also covered, in addition to the development of professional skills. Learning is enabled through a variety of methods, from problem-solving skills to tutorials and workshop practices.

Module Code	Module Title	Credits
AERO1000	Aerospace Design and Materials	20
AERO1001	Aerospace Statics and Dynamics	20
AERO1002	Aerospace Aerodynamics	20
AERO1003	Aircraft design and Performance	20

AERO1004	Professional Engineering and Project 1	20
AERO1005	Aerospace Electrical and Electronic Engineering 1	20

Year 3 Modules

Part 1 year is spent developing the fundamental engineering sciences into the key processes and operations that are common within aerospace engineering field, such as aircraft systems, airframe, propulsion and aircraft structure studies.

Module Code	Module Title	Credits
AERO2000	Aerospace Design and Manufacture	20
AERO2001	Airframe and Materials	20
AERO2002	Aerospace Propulsion	20
AERO2003	Dynamics and Flight Mechanics	20
AERO2004	Professional Engineering and Project 2	20
AERO2005	Control of Aerospace Systems	20

Year 4 Modules

In part 2, the skills and knowledge already gained are applied to more practical engineering problems. Workshop practices are broadly designed using aircraft simulators and various aircraft system operations.

Compulsory Modules

Module Code	Module Title	Credits
AERO3009	Computer Modelling Techniques	20
AERO3010	BEng Individual Project	40
AERO3000	Management and Professional Practice	20

Optional Modules

Module Code	Module Title	Credits
AERO3005	Introduction to Space	20
AERO3004	More Electric Aircraft	20