



Aerospace and Aeronautical Engineering Degree Information and Entry Requirements

In brief

Courses cover the manufacture of military and civil aircraft, theories of mechanics, thermodynamics, electronics, computer and engine design.

Avionics courses include flight and energy control systems, airborne communications, and radar systems for navigation and power.

Aeronautical engineering involves the design, construction and powering of aircraft, and similarly Aerospace engineering covers aerodynamics, flight design and control propulsion and communications.

Most courses on offer are BEng or MEng degrees. There is some flexibility with obtaining Chartered status. MEng confers the minimum requirements for initial Professional Development training (IPD) with an employer in order to obtain Chartered Engineer status, but students taking a BEng may be able to switch onto an MEng course as the first 3 years of the MEng is broadly similar to the BEng. Courses listed below are mainly BEng, entry to BEng will normally be a grade lower.

University of Bath



A Levels A*AA incl. Maths and Physics and A* in Maths or Physics

International Baccalaureate 36 points overall and 7, 6, 6 in three HL subjects including Physics and Mathematics.

BTEC D*DD in addition to A in A level Maths

Approx. 10 applicants per place

University of Birmingham



A Levels AAB to include A level Mathematics and at least one Physical Science

International Baccalaureate 32pts incl. HL Maths and Physics

BTEC options considered

Approx. 10 applicants per place

University of Bristol



A Levels A*AA including A*A (in any order) in Mathematics and any one of Physics, Chemistry, Further Mathematics or Computer Science

International Baccalaureate 38 points overall with 18 at Higher Level including 7, 6 (in any order) at Higher Level in Mathematics (either Analysis and Approaches or Applications and Interpretations) and any one of Physics, Chemistry, Further Mathematics or Computer Science

BTEC D*DD in Engineering plus either A Level Maths or taking the University of Bristol Mathematics Test

Approx. 7 applicants per place

Brunel University, London



A Levels AAB including grade A in Maths and grade B in one of the following subjects; Physics, Chemistry, Biology, Geography, Geology, Environmental Science, Environment Studies Computer Science, Electronics or Design and Technology

International Baccalaureate 33 points, including 6 in Higher Level Maths and Higher Level 5 in one of the following subjects; Physics, Chemistry, Biology, Computer Science, Geography, or Design Technology.

BTEC see university website

University of Central Lancashire



A Levels 120 points at A2 including B in Maths and Physics

International Baccalaureate 120 points from Higher Level subjects including Higher Level 6 in Maths and Physics

BTEC Extended Diploma: DMM Engineering including Maths units

Degree also available with Pilot Studies

City University



A Levels BBB incl. Maths

International Baccalaureate 30 points with 6 in Higher Level Mathematics and Physics or Chemistry or Biology

BTEC D*DD in Engineering RQF (otherwise with grade B in A level Mathematics)

Approx. 11 applicants per place

Coventry University



A Levels ABB-BBB to include Mathematics and one from Engineering, Physics, or Design Technology

International Baccalaureate 31pts to include Physics, Design Technology, IT or Mathematics at Higher level

BTEC D*DD-DDM in an Engineering subject, to include Merits in 'Calculus to Solve Engineering Problems' and 'Further Engineering Mathematics' units

University of Glasgow



A Levels AAB-BBB Mathematics and Physics. (Design & Technology may be accepted in place of Physics, 3D or Product Design options only)

International Baccalaureate 36 including HL Mathematics (Analysis & Approaches) and Physics. (SL6 can be accepted for either Mathematics or Physics).

Interview not part of selection process

Imperial College London



A Levels A*A*A incl. A* in Maths and A*/A in Physics

International Baccalaureate 40pts incl. HL Maths and Physics 77

Approx. 8 applicants per place

Interview part of selection process

University of Leeds



A Levels A*AA including Mathematics and either Physics or Chemistry, with the A* in Mathematics or Physics if presented.

International Baccalaureate 36pts with 18 points at HL to include 6 points in HL Mathematics and Physics or Chemistry.

BTEC Please contact admissions

University of Liverpool



A Levels AAB incl. Maths and a second Science
International Baccalaureate 35pts incl. HL Maths and Physics
BTEC Not accepted without grade B in A Level Mathematics
Degree also available with Pilot Studies

Loughborough University



A Levels A*AA incl. Maths and Physics with A* in Maths or Physics
International Baccalaureate 38 (7,6,6 HL) including Maths and Physics at HL, with 7 in HL Maths or Physics
BTEC Level 3 National Extended Diploma not accepted. BTEC Level 3 National Extended Certificate Grade Distinction PLUS A Level Grades A*A to include Mathematics and Physics.
Interview sometimes part of selection process

University of Manchester



A Levels AAA incl. Maths and Physics
International Baccalaureate 35pts incl. HL Maths and Physics
BTEC Please contact the academic Department for clarification
Interview not part of selection process

University of Nottingham



A Levels AAB - A in Maths and either Physics or Further Maths as a 2nd subject, or Maths with any two of the following: Chemistry, Biology, Design, Economics, Psychology, Electronics.
International Baccalaureate 34 including Mathematics: Analysis and Approaches - 6 at Higher Level or 7 at Standard Level or Mathematics: Applications and Interpretation – 6 at Higher Level only (plus Physics at Higher or Standard Level).
Interview sometimes part of selection process

Queen Mary London



A Levels AAA This must include A-Level Mathematics, and Physics or Chemistry

International Baccalaureate 36 points overall, including 6,6,5 from three Higher Level subjects. This must include Mathematics at Higher Level, and either Physics or Chemistry, also at Higher Level.

Approx.8 applicants per place

Interview not part of selection process

Queens University Belfast



A Levels AAA incl. Maths and at least one from Physics (preferred), Biology, Chemistry or Further Mathematics

International Baccalaureate 36 points overall, including 6,6,6 at Higher Level, including Mathematics and Physics (preferred), Biology or Chemistry.

Approx. 6 applicants per place

Interview not part of selection process

University of Sheffield



A Levels AAB incl. Maths and a Science

International Baccalaureate 34, 6 in Higher Level Maths and a science

BTEC DDD in Engineering or Applied Science and A in A Level Maths

Degree also available with Pilot Studies

University of Southampton



A Levels A*AA incl. Maths and Physics A*A in mathematics and physics

International Baccalaureate 38pts incl. HL maths and physics

D in the BTEC Subsidiary Diploma plus A*A in A-level mathematics and physics (in any order) with a pass in the physics Practical

Approx. 10 applicants per place

Interview not part of selection process

Staffordshire University



A Levels BBC, CCC plus 16 points from other level 3 qualifications
e.g. B at AS

International Baccalaureate 38pts incl. HL maths and physics

BTEC DMM, MMM plus 16 points from other level 3 qualifications

University of Strathclyde



A Levels AAB-BBB incl. Maths and Physics

International Baccalaureate 32-34pts incl. HL Maths and Physics
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Interview not part of selection process

University of Surrey



A Levels BBB incl. Maths at grade A and Physics

International Baccalaureate 32pts HL5/SL6 in Mathematics
(Analysis and approaches at HL/SL or Applications and interpretation at HL) and Physics.

BTEC DDM and A-level Mathematics grade B

University of Swansea



A Levels AAB-ABB incl. Maths Other recommended subjects
include: Physics, Further Mathematics, Chemistry, Design
Technology, IT/Computing, Biology

International Baccalaureate 34 overall with either 5 at HL (or 6 at
SL) "Mathematics: analysis and approaches", or 5 at HL (or 7 at
SL) "Mathematics: applications and interpretation"

BTEC Contact the university

University of the West of England



A Levels 112 UCAS pts Grade C in Mathematics, plus a pass in one of the following: Biology; Chemistry; Computing/Computer Science; Design and Technology; Electronics; Engineering; ICT; Further Maths; Music Technology; Physics; Statistics

International Baccalaureate a minimum grade of 5 in Higher Level Mathematics and a pass in one of the following at Higher Level:

Biology; Chemistry; Computer Science; Design Technology; Physics; Environmental Systems and Societies.

BTEC Contact the university.

University of the West of Scotland



A Levels BBC including Maths and Physics

International Baccalaureate 32 points including HL Maths (HL Physics also recommended)

University of Wolverhampton



A Levels grades CCC to include Maths and either a Technology or Science-based subject.

International Baccalaureate Contact the university

BTEC QCF Extended Diploma (Technology or Science-based subject) or OCR Cambridge L3 Technical Extended Diploma (Technology or Science-based subject) grade DMM

The top 25 Aerospace and Aeronautical Engineering degrees in the Times and Sunday Times Good University Guide League Table 2022 have been listed.

[More Information](#)

[The Royal Aeronautical Society](#)

[The Engineering Council](#)

[The Institute of Engineering and Technology \(IET\)](#)