Aviation Technology
Undergraduate Degrees 2018
YOU WILL HAVE ACCESS TO TWO FLIGHT SIMULATORS
INCLUDING AN AIRBUS A320 AND A COMPLEX TWIN-ENGINE FNPT2 AIRCRAFT, WHICH IS FULLY CERTIFIED FOR COMMERCIAL PILOT INSTRUMENT TRAINING

Information provided by the University such as in presentations, University brochures and the University website, is accurate at the time of first disclosure. However, courses, University services and content of publications remain subject to change. Changes may be necessary to comply with the requirements of accrediting bodies or to keep courses contemporary through updating practices or areas of study. Circumstances may arise outside the reasonable control of the University, leading to required changes. Such circumstances include, industrial action, unexpected student numbers, significant staff illness (where a course is reliant upon a person’s expertise), unexpected lack of funding, severe weather, fire, civil disorder, political unrest, government restrictions and serious concern with regard to the transmission of serious illness making a course unsafe to deliver. After a student has taken up a place with the University, the University will look to give early notification of any changes and try to minimise their impact, offering suitable alternative arrangements or forms of compensation where it believes there is a fair case to do so. Offers of a place to study at the University will provide up to date information on courses. The latest key information on courses, entry requirements and fees can be found at www.leeds.ac.uk/courses. Please check this website before making any decisions.
As the demand for flights continues to grow, there will always be a need for appropriately qualified and skilled aviation professionals, whether in the air or in operational and management roles. If you want to embark on an exciting career in the aviation industry, our aviation technology degree courses are for you.

At Leeds, our world-class research feeds directly into our teaching, which means that our aviation courses are directly aligned to the industry’s needs. You will have the opportunity to learn to fly and progress towards a Private Pilots Licence (PPL). You will also receive commercial pilot ground instruction, enabling you to accelerate your career progression.

We have close links with some of the top graduate recruiters in the industry and our aviation graduates are highly sought after by employers. Our strong industrial links mean that your course is industry oriented, so material is up to date and relevant to your future career as an aviation professional.

In recognition of our strong and continued commitment to gender equality, we have received a prestigious Athena SWAN Silver Award.

This is awarded by the Equality Challenge Unit, the national body that promotes equality in the higher education sector.

“Studying aviation at Leeds gave me the knowledge and confidence to make credible and successful applications to the industry and be selected to train to become an airline pilot as soon as I graduated. My academic background in aviation is still an advantage for me today as first officer at British Airways.”

ADAM HOWEY
BSc Aviation Technology with Pilot Studies

To view all undergraduate degrees offered by the Faculty of Engineering visit:
engineering.leeds.ac.uk
Learning and teaching

You’ll be taught by academics who are leaders in their field – staff have conducted research for organisations such as NASA, the US Federal Aviation Administration, Boeing, Lockheed Martin and the US Air Force. Our research leads directly into our teaching, meaning you’ll hear about the very latest developments in your studies.

You’ll benefit from our integrated style of teaching and learning, using methods such as lab classes, project work, lectures, tutorials, example classes and group activities, allowing you to gain first-hand experience of applying your knowledge to real-life situations. Together they will equip you with in-depth knowledge and key practical skills that will put you in a good position to compete in science and technology-related careers.

INDUSTRY-RELEVANT COURSES
You will benefit from specialist input into the curriculum through the involvement of professional pilots and other professionals from the aviation industry. Our strong industrial links mean that your course is industry orientated, so material is up to date and relevant to your future career as an aviation professional.

Our student-led Aviation Society organises a range of industrial visits and invites external speakers to give presentations. Flight training schools and other airline and airport professionals regularly give careers talks. This means you will have direct contact with industry and potential employers from an early stage in your course. Our alumni also organise events to assist students with their preparation for a career in aviation.

FLIGHT TRAINING
Many of our students are seeking to enter the pilot profession after completing their degree. Our BSc Aviation Technology with Pilot Studies supports these aspirations through a combination of flight training at private pilot level and ground instruction at commercial level. Our BSc Aviation Technology and Management students are also given the opportunity to undertake private pilot flight training.

PRIVATE PILOT TRAINING
We incorporate ten hours of private pilot flight training, which is during the summer that follows year one, into course fees*. This includes:
- aircraft hire
- flight instructor fees
- ground transport between the Leeds campus and the training location
- flying club membership fee.

Private Pilots Licence (PPL) theory and ground examinations are included during year one. Students considered ready to fly solo will need to provide a valid UK Civil Aviation Authority (CAA) class 2 medical certificate to complete training, and we will be pleased to facilitate them taking the necessary medical examination if they have not already done so on entry to the programme. Flight training is provided by a flying school at an airfield near to Leeds.

COMMERCIAL PILOT GROUND INSTRUCTION
So that you can progress along the path to a pilot career, we incorporate commercial pilot ground instruction into year two of the BSc Aviation Technology with Pilot Studies, including:
- high-quality instruction by a suitably CAA-accredited ground instructor
- access to study materials needed for the ATPL ground school if required.

You will also have access to a flight simulator suitable for commercial pilot instrument training at no additional cost.

Please note that the CAA Air Transport Pilot Licence (ATPL) ground examinations are for an external qualification beyond the control of the University of Leeds. Students wishing to sit these examinations are responsible for any CAA mandated revision short course and examination fees and must have completed their PPL.

PROJECTS
Project work provides you with an excellent opportunity to explore a subject further and will enable you to develop essential skills such as problem-solving, communication skills and teamwork, all vital to success in your chosen aviation career. Teamworking is an essential aspect of personal development for your future career in the aviation industry and its importance is reflected in the team project you will carry out in your final year.

* upon the successful first-time pass of 100 credits at level one.

engineering.leeds.ac.uk/aviation
FACILITIES
You’ll have access to our engine laboratories and flight simulators, including an Airbus A320 airliner cockpit simulator. If you want to take commercial-level instrument training, you’ll also benefit from the use of our CAA-approved complex twin-engine FNPTII aircraft simulator. You will also enjoy excellent teaching facilities and resources, including modern, well-equipped lecture theatres and laboratories.

STUDENT SUPPORT
Our personal tutorial system will provide academic and pastoral support. You will have a designated member of staff as personal tutor throughout your studies at Leeds. You will have weekly academic tutorials with your tutor throughout your first year, in your tutor group (of typically five students), as well as one-to-one meetings twice per semester. We have an excellent Student Support team, located close to where you will work and study, who will help you with anything, from academic advice and guidance, online module enrolment and registration, timetabling, results and progression requirements to coursework/project submission enquiries and what to do if you miss work through illness.

The web-based student portal will enable you to access the University’s student services and information, while our Virtual Learning Environment (VLE) will allow you access to your personal timetables, course materials, academic and social groups, and much more.
Careers and employability

Your degree from the University of Leeds and the wider experience you’ll gain while you’re studying here will help you stand out from the crowd and secure that all-important graduate job. Both degrees will equip you with the skills you need to succeed in industry, including design, problem-solving, numeracy and analytical skills, together with transferable skills such as communication and working as a team.

REWARDING CAREERS
Many of our students see these courses as being the first step towards gaining a Commercial Pilot Licence (CPL). In addition to these options, airports, airlines and the broader aviation industry offer many other opportunities and you will be well placed to launch your career in a variety of aviation-related areas such as airport operations and management, air traffic control, non-airline commercial flight operations, flying instruction, and roles in technical sales and marketing. Some students have been successful in obtaining RAF sponsorship.

Many of our graduates are working as first officers for a range of airlines and we would expect them to progress to captain in due course.

Graduate salaries are dependent on the size of the airline. A newly qualified pilot employed with a small regional airline would earn around £24,000. A first officer working for one of the larger airlines can earn between £38,000 and £48,000, and a senior captain at a major airline will typically receive a very high salary.

Graduates progress towards their CPLs in various ways, including studying at commercial flight training schools in the UK and abroad.

"From the feedback I have received, CTC is impressed with the Leeds course, not only because of the theoretical knowledge gained and the PPL but also the commitment it shows to a career in aviation."

AVIATION GRADUATE
Reporting from the CTC training base in Hamilton, New Zealand

"The course has been an extremely valuable aid for the ATPL ground exams, perhaps more than I was expecting."

AVIATION GRADUATE
Reporting from Flight Training Europe in Jerez, Spain

CAREERS SUPPORT
Throughout your time with us, our award-winning faculty Employability team is here to support, guide and advise you. In addition to specialist face-to-face meetings, you’ll benefit from:

- timetabled employability sessions
- ongoing support to find internships and placements
- presentations and workshops delivered by employers.

Our Employability team also organises an annual STEM Careers Fair, which will give you the opportunity to meet over 100 graduate recruiters to gain an insight into graduate jobs and to explore work experience and internship opportunities.

Just a few of the employers that have recently attended our fairs include:

- Airbus
- British Airways
- The Manchester Airports Group
- Jet2.com
- The Royal Air Force (RAF).

INDUSTRIAL PLACEMENT YEAR
An industrial placement year is a great way to help you decide what kind of career you might like when you graduate. As well as giving you the opportunity to develop your own skills, you’ll gain a real insight into working life in a particular company or sector.

You will be given the opportunity to undertake a placement year alongside your degree, between the second and third year of your studies.

If you decide to undertake a placement year, this will extend your degree by 12 months. On successfully completing your placement year, you will be awarded the ‘industrial’ variant in your degree title to demonstrate your unique expertise to future employers.
If you would like to develop specialist aviation engineering, technical and management skills but do not wish to take the commercial pilot ground training component, our BSc Aviation Technology and Management is the perfect choice. This course is also suitable for those who already hold an ATPL and wish to acquire broader knowledge of the air transport industry.

This degree course will equip you with the skills required for a career in management and operations in the aviation industry, and will enhance your employability and credentials. You will also have the opportunity to undertake flight training at private pilot level. In your second year, you will take modules on aviation management and will study how to manage and finance activities in the aviation industry.

You will benefit from specialist input throughout the course through the involvement of professional pilots and senior managers from the aviation industry. Bringing working knowledge of advanced communications and navigation systems, management techniques and strategic thinking, these contributions complement the knowledge base provided by the course.

HANDS-ON LEARNING
Every year of the course gives you hands-on experience of project work. Recent examples of projects our students have been working on include:

- Airport design: thinking outside the box
- Environmental impact assessment for airlines
- Security aspects of baggage handling; reduction of security-related threats to aircraft
- Analysis of key performance indicators in airside operations.

GRADUATE DESTINATIONS
Recent graduates have secured positions including:

- Link Manager, Air Canada, Heathrow
- Flight Planner, Teesside Airport
- Aircraft Broker, Air Charter Service, Dubai
- Operations Controller, Eastern Airways
- Air Traffic Controller, Eurocontrol
- Aircraft Propulsion Engineer, Rolls-Royce North America
- Air Traffic Controller, RAF
- Project Manager, QinetiQ.

FURTHER STUDY
- Air traffic control course, Australia
- Commercial pilot training, CTC Training, New Zealand
- JAA ATPL integrated course, Oxford Aviation Training.
Drawing on our extensive expertise in aircraft design, materials, propulsion, environmental issues and industrial management, this course will equip you with a solid science and engineering base and the broader aviation knowledge vital for pilots in the 21st century.

You'll benefit from the training facilities and expertise of a professional flying school as you undertake ten hours of flight training, achieve the Civil Aviation Authority (CAA) ground exam requirements for the Private Pilots Licence (PPL) and develop the knowledge you need for commercial pilot ground exams. At the same time, you'll gain a strong science and engineering base with modules on topics like aviation engineering materials. You'll also put this knowledge into the context of the aviation industry today and in the future.

You will benefit from specialist input throughout the course through the involvement of professional pilots and senior managers from the aviation industry. Bringing working knowledge of advanced communications and navigation systems, management techniques and strategic thinking, these contributions complement the knowledge base provided by the course.

**HANDS-ON LEARNING**

Every year of the course gives you hands-on experience of project work. Recent examples of projects our students have been working on include:

- Aircraft control in turbulence
- Aircraft cabin reconfiguration
- Air traffic control problems
- Design and construction of aircraft landing systems
- Design, construction and operation of a small unmanned aerial vehicle
- Development of a remote piloting system using the flight simulator
- The cockpit — a total rethink
- Novel on-board surveillance systems for in-flight security
- Design of a hypersonic business jet
- Design and scale-model testing of an air ambulance for the 21st century.

**GRADUATE DESTINATIONS**

Recent graduates have secured positions including:

- First Officer, British Airways, flying B757/767, based at Heathrow
- First Officer, Easyjet, flying A320, based at Luton
- Flight Dispatcher, Gatwick International Airport
- Aeronautical Analyst, Navtech
- First Officer, Qatar Airlines, flying A340, based in Doha
- Weapons Systems Officer, RAF
- First Officer, Ryanair, flying B737, based at Stansted
- Senior First Officer and Pilot Technical Instructor, Thomas Cook, flying A320, based at East Midlands.
Modules

Our courses are broadly common and focus on core aviation knowledge, transferable aviation skills and creative aviation industry problem-solving. Teamwork is an essential aspect of personal development for your future career in the aviation industry and its importance is reflected in the team project you will carry out in your final year. For full module descriptions, please visit our website.

### Aviation Technology and Management (BSc)

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<tr>
<th>Year 1</th>
<th>Compulsory modules:</th>
<th>Optional modules:</th>
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<tbody>
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<td>• Aviation Engineering Materials</td>
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<td>• Theoretical Knowledge for the Private Pilots Licence</td>
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<td>• Introduction to Surface and Air Transport</td>
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<td>• Mathematical Techniques 1</td>
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<td>• Aircraft 1</td>
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<td></td>
<td>• Aviation Project Management and Finance</td>
<td>• Airline and Airport Operations</td>
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<td>• Aviation Health and Safety</td>
<td>• Aviation Management Project</td>
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<td>• Advanced Pilot Theory</td>
<td>• Mathematical Techniques 2</td>
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<td>• Aircraft 2</td>
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<td>• Aviation Safety and Reliability</td>
<td>• Aviation Technology Team Project</td>
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### Aviation Technology with Pilot Studies (BSc)

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These are the typical modules studied and may change from time to time.
Entry requirements
and how to apply

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<tr>
<th>Degree title</th>
<th>UCAS code</th>
<th>Duration (years)</th>
<th>A-level</th>
<th>BTEC</th>
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<tr>
<td>BSc Aviation Technology and Management</td>
<td>HN42</td>
<td>3</td>
<td>AAA, including Mathematics or Physics, and excluding General Studies or Critical Thinking.</td>
<td>D*DD with distinctions in relevant mathematics and physics units.</td>
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<tr>
<td>BSc Aviation Technology with Pilot Studies</td>
<td>H460</td>
<td>3</td>
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<td>Some mathematics and physics units may be optional on your BTEC but are required by the Faculty. Please contact us for further information.</td>
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**EQUIVALENT QUALIFICATIONS**
We welcome students with a wide range of qualifications and these are listed on our website. engineering.leeds.ac.uk/chemical/ug-equivalents

**ENGLISH LANGUAGE REQUIREMENTS**
GCSE English Language grade C (or above) or an equivalent recognised English Language qualification, e.g IELTS 6.0 overall with no less than 5.5 in each section.

**ACCESS TO LEEDS**
The University of Leeds has a policy of welcoming applicants from non-traditional academic backgrounds. If you do not meet our entry criteria above, you may be eligible via the Access to Leeds scheme. www.leeds.ac.uk/a2l

* Where an A-level science subject is taken, we require a pass in the practical science element, alongside the achievement of the A-level at the stated grade.

Extended Project Qualification: while we recognise the value, effort and enthusiasm applicants make in the Extended Project, we do not currently include this as part of our offer-making. We do however encourage you to provide further information on your project in your personal statement and, if invited, at interview.
SCHOLARSHIPS
We offer a number of scholarships within the School. Please visit our website for further details.
engineering.leeds.ac.uk/scholarships

CONTACT US
If you require any further information prior to making a formal application, please contact our Undergraduate Admissions team.

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e-mail: ugaviation@leeds.ac.uk

FIND US ONLINE
To find out more about the University and Aviation Technology visit:
enGINEERING.LEEDS.AC.UK/AVIATION

FACEBOOK: facultyofengineeringleeds
TWITTER: @LeedsUniEng
INSTAGRAM: @engineeringleeds
YOUTUBE: engineeringleeds
LEEDSUNIENGINEERING