Engineering
Careers with Flybe

About Flybe Training Academy

Flybe Training Academy is part of Flybe, one of Europe’s largest regional airlines, and is situated at the company’s headquarters located at Exeter International Airport.

The purpose-built facility was completed in 2011 and opened by the Rt Hon George Osborne MP. Flybe Training Academy offers a wide range of technical, pilot and cabin crew training to Flybe and other airlines operators from across the world. Its facilities include: a simulator hall with two level D full flight simulators; a cabin crew training hall with door trainer, aircraft mock-up, and fire and smoke trainer; and a large engineering apprentice workshop and training facility, where it delivers its Flybe Engineering Diploma in partnership with Exeter College.

The Flybe Engineering Diploma programme has produced some highly skilled, successful and much sought after engineers over the years who are now employed all over the world working for numerous high calibre aviation maintenance companies.

Flybe Facts

The UK’s largest independent regional airline was founded in 1979 under the name Jersey European and was rebranded as Flybe in 2002.

Flybe employs 2,600 staff; the majority of which are pilots, engineers and cabin crew.

Flybe operates more UK domestic flights than any other airline.

Flybe’s state-of-the-art hangars, based at Exeter International Airport, make up the largest regional maintenance facility of its type in Europe.

Every year Flybe fly over 7.5 million passengers over 200 routes from more than 100 airports across 23 European countries.
Interested in a Career in Engineering?

Engineering is considered to be one of the most important and rewarding careers anyone can have and can lead to a very exciting future in a whole range of industries.

Engineering plays a pivotal role in shaping the local and global economy and has a crucial role to play in delivering growth for the UK and in shaping our ability to cope with mounting pressure on the world’s resources. From essentials like running water, transport and power generation through to mobile phones, broadcasting and broadband internet, engineering is vital to our everyday lives and contributes £1.06 trillion turnover to the UK economy.

Engineering – Industry facts

- The engineering sector employs 5.4 million people across 542,440 engineering companies.
- The UK is known as a world leader in several sectors: higher education, automotive, renewable energy, space, aerospace, utilities and low carbon. Because of this, between 2010 and 2020, engineering companies are projected to have 2.74 million job openings, of which, 1.86 million will be workers who are likely to need engineering skills and qualifications.
- Engineering offers a solid, well-paid career progression when successfully completing any of the four career pathways.

I heard about Exeter College’s Flybe Diploma in Engineering from my sister as I was looking for a practical engineering course. The course was a great choice for me as there are so many options to take once you qualify. Qualifications gained are recognised all over the world so there is potential to travel, something I have always wanted to do. The potential of earning a competitive salary at the age of 21 also appealed!

In terms of interest, the modules studied on the course vary a great deal, but the best thing about the course is definitely the other students. Everyone is in it together, helping each other out and bringing different experiences with them. I also like the fact that the course builds in a foundation degree as I always had aspirations of going to university.

JO LANGDON
Flybe Diploma in Engineering student, 2008-2012.
Jo is now working as an engineer for Flybe.
Flybe Diploma in Engineering

Flybe Diploma in Engineering is a four year programme delivered by Exeter College in partnership with Flybe and provides a blended programme of academic and practical learning. On successful completion, you will be well on your way to becoming a licensed aircraft engineer.

You will:

- gain theoretical and practical competencies in all aspects of aircraft engineering maintenance and repair;
- complete a BTEC Level 3 120 credit Diploma in Engineering, an Honours Degree in Aircraft Engineering and the academic modules of the EASA Part 66 B1.1 licence;
- study at Exeter College’s new Technology Centre in your first year and then progress to the Flybe Training Academy at Exeter International Airport;
- work on live aircraft as well as in our well-equipped workshops;
- gain on-the-job training in a real airline environment in Flybe hangars;
- attain the skills and knowledge to prepare you for a career that has great potential to earn a very competitive salary.

The entry requirements for this course are:

- five GCSE grades at C or above to include English, Maths and Double Science or Physics;
- a good level of basic fitness;
- reasonable near and distant vision (that can be corrected by glasses or contact lenses);
- ability to move around small, confined spaces and work at heights;
- completion of a medical questionnaire.

Since 2008, 160 students have successfully completed the four year Engineering programme. The first group of students graduated with 100 per cent pass rate and all have found employment in their chosen career.

For more information about the Flybe Engineering Diploma please contact one of the College Advice Team on 01392 400600 or info4u@exe-coll.ac.uk
Working with our Learning Community

Flybe understands the importance of attracting and retaining a skilled and qualified workforce and is committed to supporting young people, especially those from our local region.

At Flybe, we recognise the importance of working with schools, colleges and universities to develop student’s skills and knowledge prior to employment. We want to raise awareness of the career opportunities within Flybe and in doing so, aim to create clear pathways to employment.

Flybe offers a wide variety of training days and workshop sessions for schools and colleges as well as local community groups and clubs, giving young people the opportunity to find out more about careers in engineering. From airline master classes and cabin crew days to guided tours and work experience placements, we can deliver sessions at our training facility or at school premises. For more information, please contact us at flybetraining@flybe.com or call 01392 880800.

Other Careers in Aviation

The aviation industry is a large employer in the UK and includes 30 commercial airports, plus numerous private airports, airfields and airlines. Currently there are over 140,000 people working in the UK’s aviation industry in hundreds of different job roles.

For more information about aviation careers please visit www.flybe.com/en/corporate/careers or https://nationalcareersservice.direct.gov.uk/Pages/Home.aspx

For information about other exciting aviation themed days please visit www.flybetraining.com/schools-colleges-universities
What is Higher Education?

Higher Education is the level of education that involves undergraduate and postgraduate degrees. You can study for a Higher Education qualification at a university or alternatively your course may be offered at a Further Education college. Higher Education gives you access to teaching and research facilities that you may not have had previously, allowing you to develop your knowledge even further. Qualifications are typically completed once you have finished your A levels or equivalent. Students often describe these years as some of the best of their lives, gaining fantastic memories which stay with them even after they have finished their studies.

You will have the opportunity to study subjects you enjoy, have the chance to study abroad and gain valuable work experience. It is also a great opportunity for students to develop confidence, communication and team working skills which are vital in everyday life.

Why study Engineering?

Engineering challenges lie at the heart of many of the most significant problems facing society in the 21st century, ranging from responding to climate change through developing sustainable energy sources to making efficient use of scarce natural resources. To be a successful engineer in the present fast moving technological world you will require an education with the broadest possible interdisciplinary base. As tomorrow’s engineer, you will find that your career will involve not only bringing your specialist knowledge to a project, but also collaborating with engineers from other disciplines.
University of Exeter, College of Engineering, Mathematics and Physical Sciences

The College of Engineering, Mathematics and Physical Sciences brings together a number of complementary scientific disciplines and facilitates a truly interdisciplinary approach to scientific innovation and learning.

Our areas of expertise cover Engineering, Mathematics, Computer Science, Medical Imaging, Physics and Astronomy at the Streatham Campus in Exeter, with Geology, Mining and Minerals Engineering, and Renewable Energy at the Penryn Campus in Cornwall.

We are dedicated to ensuring an excellent student experience, with a supportive learning environment.

The College is equipped with world class facilities for teaching and research.

Our degrees are designed to prepare students for employment in a wide variety of professional careers.

Engineering Programmes

Engineering is not just a career; it’s a driving force in society. Modern life is characterised by rapid developments in technology such as the mobile phone, nanotechnology, satellite communications, high-speed trains and innovative structures – all designed, developed and implemented by engineers.

There are many different degree programmes available such as:

- Civil Engineering
- Civil and Environmental Engineering
- Electronic Engineering
- Electronic Engineering and Computer Science
- Engineering and Management
- Mechanical Engineering
- Materials Engineering
- Mining and Minerals Engineering
- Engineering
- Engineering Mathematics
- Renewable Energy.

For more information on all of the programmes available, please visit www.exeter.ac.uk/engineering
Learning and teaching

Engineering at Exeter combines a breadth of academic expertise with a caring and supportive learning environment. Our programmes make use of a variety of teaching styles, with contact hours ranging from 25-32 hours each week (depending on year of programme), including:

- **Lectures** – a method of teaching at university. Large classes in a room with tiered seating and a lecturer talking at the front while you take notes;

- **Workshops** – where you can discuss and find solutions to sample problems with hands-on use of equipment and experts available to answer questions and provide support;

- **Tutorials** involving small group work on problems relating to topics covered in lectures;

- **Projects** of longer term practical work undertaken either individually or in teams, with sessions for consultation with staff;

- **Engineering Design Activities (EDAs)** which provide direct experience of putting engineering design into practice while learning the underpinning principles and mathematical skills in other modules.

Our Scientists are changing the world:

- Developing blast-proof curtains which get thicker, not thinner, when stretched to provide protection from flying debris during bomb explosions.

- Cutting-edge research into Graphene – a revolutionary new material that has launched a new era in nanotechnologies.

- Developing a new device to diagnose malaria faster and cheaper.

- Leading on groundbreaking research into biomethane production, which could power UK homes and revolutionise our energy industry.

- At the forefront of climate science research to advance our understanding and prediction of weather and climate.

- Developing sustainable urban water supplies, maximising economic and social welfare in the most critical areas of the world.
I found engineering combines science, design, art and hands-on fabrication. For me the projects, both individual and group, were the most enjoyable aspect of my courses. This is where you could let your imagination and problem solving skills run wild.

I am now in my final position as a manufacturing development engineer for TE’s Advanced Manufacturing Technology team in Pennsylvania, USA. Day-to-day my role encompasses project management, conceptualising solutions, experimental testing, writing papers and reports, and liaising with engineers, managers and directors across the globe.

The success of a professional engineer is as much dependent on their character and charisma as it is on their knowledge and experience. If you're likeable, honest, dynamic and enthusiastic then you'll succeed. Studying engineering provides a foundation of logical thought processes, problem solving techniques, and the ability to learn and apply many principles and theories.

SEAN COLEMAN
BEng Mechanical Engineering (2010); MSc Advanced Mechanical Engineering (2011)

I decided Engineering was the path for me somewhat shakily around the time that everyone else had already started applying to universities. I just thought university sounded great and would enable me to postpone the moment when I had to decide what to do with the rest of my life. This left me with the tricky decision of what to actually study there...My A levels were Maths, Physics, DT and English, and it seemed to me that the more intellectually stimulating theoretical side of Maths and Physics would tie in beautifully with the practical side of DT if I studied Engineering, both of which I enjoyed.

Arriving at the University of Exeter I discovered just how diverse the Engineering degree was as we had lectures about mechanics, fluid dynamics, electronics, maths and even management as well as learning how to use various 3D modelling computer programs, and being unleashed on all the workshop facilities. As part of the course, we had talks from a number of professional engineers, and hearing all about their projects inspired me to consider a career in bridge engineering.

ANNABEL PARRY
Civil Engineering
Key Routes into Engineering

There are four main pathways for a career in engineering:

1. **TRADITIONAL ROUTE**
   - GCSE’s A*-C
   - *A*/AS Level/IB/ BTEC National
   - Honours Degree
   - Masters Degree

2. **WORK BASED LEARNING**
   - GCSE’s D-G
   - Intermediate Apprenticeship
   - Advanced Apprenticeship
   - Higher Apprenticeship
   - HND/HNC
   - Honours Degree

3. **VOCATIONAL LEARNING**
   - GCSE’s A*-C
   - BTEC National
   - Foundation Degree
   - Honours Degree
   - Masters Degree

4. **FLYBE DIPLOMA IN ENGINEERING ROUTE**
   - ^GCSE’s A*-C
   - BTEC Level 3 Diploma
   - Honours Degree
   - EASA Part 66 Aircraft Engineering Licence

*5 GCSE’s required (including Maths, English, Double Science, Physics)
*Maths plus Science subject(s) A levels required