# Future Directions OPTIONS

Physics and Astrophysics



Careers and Employability

Keele students often ask what career options are open to them as a result of studying their particular subject at university. Here we provide examples of employment sectors and typical jobs that are closely linked to a degree in Physics and Astrophysics. We highlight the importance of skills developed on this degree together with the destination figures of graduates from this discipline in 2018. You will also find links to relevant careers information for you to pursue your research, along with details of who to speak to for further advice.

# **Occupational sectors**

- Engineering
- Nanotechnology
- Medicine
- Oil and Gas
- Science Research
- Telecommunications
- Space Exploration
- Education
- Renewable Energy
- Meteorology

### Want to work as?

Many students are excited by careers that utilise the academic knowledge and skills developed on their degree:

- Research Scientist
- Geophysicist
- Science Teacher
- HE Lecturer
- Medical Physicist
- Operational Researcher
- Software Engineer
- Radiation Practitioner

### What else?

For those who do not wish to pursue a career directly related to their degree, here are some career ideas to open up options:

- Science Writer
- Technical Author
- Chartered Accountant
- Patent Attorney
- IT Consultant
- Air Traffic Controller

# Sixty percent of jobs

This is the estimated number of jobs open to graduates of any discipline. It demonstrates the flexibility of many graduate employers when setting out their academic requirements and that students are not necessarily restricted to careers related to their degree. Both Prospects (prospects.ac.uk) and Targetjobs (targetjobs.co.uk) have detailed information on all areas of graduate employment.

# Skills sought by employers

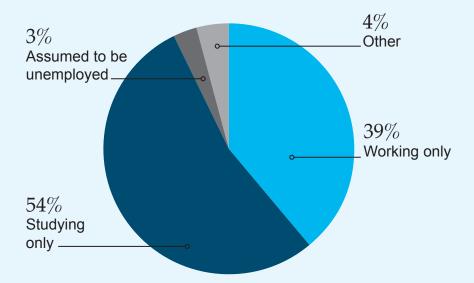
Regardless of which career you pursue after Keele, employers will want evidence of the range of skills and personal qualities you possess and which are required for the job. Your degree is clearly important in this respect but don't forget the extra-curricular activities, positions of responsibility, jobs and voluntary work you may have been engaged in while studying at Keele. These activities allow you to demonstrate the skills and personal qualities required by employers and will be vital in your attempts to secure graduate employment. More information on skills can be found on our website (keele.ac.uk/careers).

# The Higher Education Academy skills profile for Physics and Astrophysics:

Demonstrate knowledge and understanding of fundamental physical laws and principles and apply these principles to diverse areas of physics. Solve problems in physics by identifying the appropriate principles, using science techniques. Solve problems by making assumptions and approximations explicit. Plan, carry out, analyse and report the results of an experiment or investigation. Analyse data and evaluate the level of uncertainty in results. Use mathematics to describe the physical world. Develop the confidence to try different approaches in tackling challenging problems. Work independently, using initiative, planning and organising to meet deadlines.

# Physics and Astrophysics Destinations

of those who responded:



OF THOSE WHO RESPONDED		
Working only	11	39.3%
Studying only	15	53.6%
Working and studying		
Assumed to be unemployed	1	3.6%
Other	1	3.6%
Total	28	100%

The figures are based on the DLHE survey sent to Keele leavers 6 months after graduation. Remember that it can take time for leavers to find the type and level of work they are looking for. Relevant work experience and postgraduate study may be required. Graduate employment is competitive to enter and the quality of initial job applications needs to be good. See below for details of how we can help you develop your career plans and employability.

# What happened to Keele's Physics and Astrophysics graduates?

Have you ever wondered what happens to students from your course after graduation? Each year, between December and March, Keele University, along with all other public funded universities in the UK, is required by the Higher Education Statistics Agency (www.hesa.ac.uk) to take part in the Destination of Leavers from Higher Education (DLHE) survey of those students who graduated the previous summer. The most recent data available (summer 2018) is for graduates who completed their undergraduate courses in 2016/17.

# Postgraduate study?

The number of students choosing to do further study after their degree varies between disciplines. Some students are strongly committed to studying their subject in greater depth and so will proceed to a higher level qualification, such as a masters or PhD. Others will be required to study at postgraduate level due to career choice and the need to gain appropriate qualifications. Careers in thermodynamics, astrophysics and quantum mechanics usually require a postgraduate qualification. The 2018 destination figures for Physics and Astrophysics show that 54% of graduates entered full-time study.

For further advice regarding postgraduate study speak to a Careers Consultant and go to the postgraduate study section on our website (www.keele.ac.uk/careers/postgraduatestudy).

#### **Graduate level jobs?**

Of those Physics and Astrophysics graduates in employment 6 months after graduation, 73% were in graduate level jobs and 27% were in non graduate jobs.

# What Careers and Employability can do for you

- Develop your career plans, no matter at what stage they may be, through one-toone interviews.
- Help you find graduate vacancies and internships.
- Make sure your CV and job applications stand out for all the right reasons.
- Prepare you for graduate job interviews and assessment centres.
- Our website (keele.ac.uk/careers) has details of vacancies, internships, events and guidance interviews.
- Provide you with these services for three years after graduation.

keele.ac.uk/careers

#### **Further information**

The Prospects website (www.prospects.ac.uk) contains extensive careers information.

The Institute of Physics (www.iop.org) also provides careers information on a number of science-based careers.

The skills profile was taken from The Higher Education Academy's Student Employability Profiles (https://www.heacademy.ac.uk/knowledge-hub/student-employability-profiles).