



The
Careers
Service.



Handout

Career resources - Department of Physics and Astronomy

Deciding what to do after your degree

CAREERS SERVICE

Many Physics and Astronomy graduates enter employment that makes use of their discipline, either directly or by using their numerical, analytical and problem solving skills. Typical jobs areas include scientist in the nuclear industry, trainee healthcare scientist (NHS), physicist in the petrochemicals industry, engineering in the energy sector, physics technician in education, software engineering, games development and web development. Teaching has recently become a popular option, both as a science teacher in UK schools as well as abroad (eg, TEFL). Some graduates choose employment in areas outside of their discipline – examples are as diverse as self-employment (eg, sound engineer), auditor, charity fundraising, sales, marketing and general management.

A high proportion of Physics and Astronomy students continue into further study with many embarking on a PhD / MPhil perhaps with a view to a career in academia or research institute. Masters programmes relating to their subject are also popular. Some of these graduates may then move on to a PhD or enter research-related employment. A small number of those completing PG courses choose alternatives which require a high level of scientific knowledge such as Patent Attorney or Science Communication.

For further information about using your degree, explore the Careers Service's 'Careers with my degree' webpages: www.shef.ac.uk/careers/students/degree/phy. On this webpage, you'll find links to *Your options* and *Vacancies* which provide information about what graduates of Physics and Astronomy at Sheffield go on to do after their degree. To generate ideas more personal to you, investigate the *Understanding yourself* section of the above website. Have a go at *What jobs would suit me?* Take your time completing the online questionnaire to generate more meaningful suggestions of what jobs might suit your interests, skills and motivations. If you need help thinking about your skills, interests, personality and motivation, have a go at the *Profiling for Success* activities (you'll need access codes for this, available via the 'Careers' tab in your MUSE account) or speak to a Careers Adviser.

For more information on getting started: pick up a copy of 'See the Bigger Picture' from the Careers Service or download a copy: www.careers.dept.shef.ac.uk/bigger_picture/see_the_bigger_picture.pdf.

INSTITUTE OF PHYSICS

The Institute of Physics (IOP) has a useful careers section, which has information about job sectors that might appeal, along with a brief guide to Masters courses and PhDs: www.iop.org/careers/directions/index.html.

INSTITUTE OF PHYSICS AND ENGINEERING IN MEDICINE

The Institute of Physics and Engineering in Medicine (IPEM) has careers information for those wishing to pursue careers in areas such as medical physics or clinical technologist jobs (eg, in areas such as radiotherapy, bioengineering, dialysis, laser procedures, magnetic resonance imaging and ultrasound): www.ipem.ac.uk/careers/Pages/default.aspx.

ROYAL ASTRONOMICAL SOCIETY

The Royal Astronomical Society website has notes on studying and working in astronomy and planetary sciences in the UK, including advice on becoming a professional astronomer. As Astronomy is predominantly an academic research field, the RAS has advice about finding a suitable PhD or Master's degree to help your career prospects: www.ras.org.uk/education-and-careers

PROSPECTS, TARGET JOBS, INSIDE CAREERS

All of these websites can be used to explore a variety of career options:

www.prospects.ac.uk/options_physics_your_skills.htm.

targetjobs.co.uk/career-sectors

www.insidecareers.co.uk

Work experience

STUDENT JOBSHOP

As well as helping you decide what to do next after your degree, the Careers Service can give you help with finding placements and other work experience opportunities along with part-time or holiday jobs whilst you are a student: www.shef.ac.uk/careers/students/advice/work. Visit the Student Jobshop at 285 Glossop Road to speak to one of our team: www.shef.ac.uk/careers/students/jobs/jobshop.

If you plan to get work experience of any kind, use the experience to demonstrate to future employers that you have the necessary skills to function in the workplace by taking part in the Skills for Work Certificate:

www.shef.ac.uk/careers/students/advice/sfwc. If you are also involved in extra-curricular activities like sports, clubs, societies or volunteering, check out The Sheffield Graduate Award: www.shef.ac.uk/thesheffieldgraduateaward.

Vacancy websites/ agencies specialising in science-related vacancies

Below are details of useful websites to help with your graduate job search:

- Myvacancies (work experience and graduate vacancy listing maintained by the Careers Service with local, national and international opportunities) - current students should access myVacancies via the 'Careers' tab in their MUSE account. Alternatively, see www.shef.ac.uk/careers/students/jobs
- Prospects website - www.prospects.ac.uk (see 'My Prospects' for a searchable database and also links to other vacancy sources via the occupational profiles www.prospects.ac.uk/types_of_jobs.htm)
- Target – targetjobs.co.uk
- Graduates Yorkshire (for graduate jobs in the region) - www.graduatesyorkshire.co.uk
- Brightrecruits (IOP) – brightrecruits.com
- IPEM jobs - www.ipem.ac.uk/jobs
- New Scientist - jobs.newscientist.com/en-gb
- Matchtech - www.matchtech.com
- Jobs in Science - www.jobsinscience.com
- Total Jobs - www.totaljobs.com
- SRG - www.srg.co.uk. For other agencies, search the Consultancy Finder on the REC website: www.rec.uk.com/jobseeker
- H.E. Research/Academic jobs - www.jobs.ac.uk
- ECM Selection - www.ecmselection.co.uk
- NHS jobs - www.jobs.nhs.uk
- Government jobs: www.civilservice.gov.uk; www.jobsgopublic.com; www.lgjobs.com
- Earthworks - www.earthworks-jobs.com
- Nature Jobs - www.nature.com/nature/careers/index.html
- Research gate - www.researchgate.net/jobs/research
- For jobs further afield, check out 'myInternational Career' - www.shef.ac.uk/careers/students/inter
- Guardian Careers: careers.guardian.co.uk

Talk to your tutor as they (or others in your department) may have some useful contacts for you to follow up.

Don't limit your chances by only looking at online jobs databases or vacancy listings. Find out which organisations operate in your area of interest and check out their website - if you can't find a jobs page, contact them directly. The Careers Service and your department can help you identify organisations, as might professional associations (eg, IOP, IPEM, Association of the British Pharmaceutical Industry - careers.abpi.org.uk/Pages/default.aspx; Energy Institute - www.energyinst.org/education; Nuclear Industry Association - www.niauk.org/education-skills-training; Chartered Institute of Patent Attorneys: www.cipa.org.uk). Even try a search on Yellow Pages - www.yell.com. Use a professional, targeted speculative application (CV and covering letter) to tap into the 'hidden' jobs market: www.shef.ac.uk/careers/students/gettingajob/creativejob. Use social media: www.sheffield.ac.uk/careers/students/gettingajob/media

Don't just aim for the larger, well known organisations but also consider employment with Small and Medium Sized Enterprises (SMEs), who make up a good proportion of graduate employers. Watch the DVDs for more information on working for an SME: www.shef.ac.uk/careers/students/worktypes/optionstalks

National employers who recruit physics graduates

The following section lists some UK employers who have recruited our physics graduates (UG and PG courses) in the past. NB: this list is by no means exhaustive - use it as a starting point to appreciate the breadth of occupations and employers open to you.

Company Title	Area of Work	Website
Actavis	Pharmaceutical production	www.actavis.co.uk/en/default.htm
Actuarial profession	Actuarial work	www.actuaries.org.uk
AECOM	Energy industry	www.aecom.com/Careers/Student+Connections/Graduates
Alstom	Energy supply work	www.alstom.com
Amec Nuclear	Engineering consultancy	www.amec.com
American Museum of Natural History	Astronomy research scientist	www.amnh.org
AREVA	Risk management (nuclear)	www.areva.com
Appco Group UK	Sales / marketing	www.appcogroup.co.uk
Atkins	Construction / engineering	www.atkinsglobal.com/graduates
AWE	Atomic weapons	www.awe.co.uk
BAE Systems	Aerospace / defence systems	www.baesystems.com/careers-rzz
British Antarctic Survey	Research	www.antarctica.ac.uk
BT	Telecommunications	www.btplc.com
BG Group	Energy (gas)	www.bg-group.com/Careers/Pages/WorkWithUs.aspx
Bluefin	SAP consultancy	www.bluefinsolutions.com/careers/graduates
BP	Petrochemical industry	www.bp.com
Capita Symonds	Construction / engineering	www.capitasymonds.co.uk
CERN	Scientific research (particle physics)	public.web.cern.ch/public
Charities	Charity administration	www.wfac.org.uk
Cobham PLC	Aerospace / defence systems	www.cobham.com
Custom Solar	Energy (renewable)	www.customsolar.co.uk
Detica (BAE Systems)	IT / technical consultancy	www.baesystemsdetica.com/careers
Dorset Software	Computer programmer / analyst	www.dorsetsoftware.com
DSTL	Defence	www.dstl.gov.uk/pages/150
EADS Astrium	Satellite technology	www.astrium.eads.net/en/careers
EDF Energy	Energy	www.eisfordfenergy.co.uk
eDigitalResearch	Market research (ICT)	www.edigitalresearch.com
Enterprise-Rent-A-Car	Management trainee	www.enterprisealive.co.uk
E.ON	Energy (gas & electricity)	www.eon-uk.com/careers
ESRF (France)	Scientific research (photons)	www.esrf.eu
Fluid Gravity Engineering	Scientific research (computational physics)	www.fluidgravity.co.uk
GORS	Government Operational Research Service	www.operational-research.gov.uk/recruitment
Helios	Technical & management consultancy (traffic)	www.askhelios.com
Hexel	IT support / engineering	www.hexel.net
Home Office: Centre for Applied Science & Tech.	Scientific Research (crime, surveillance, public security)	www.homeoffice.gov.uk/science-research/cast/
HMGCC	Government (cyber security)	www.hmgcc.gov.uk
JA Kemp	Patent attorney	www.jakemp.com
Lockheed Martin	Defence systems	www.lockheedmartin.co.uk
Marks and Clerk	Patent attorneys	www.marks-clerk.com
Mathys & Squire	Patent attorneys	www.mathys-squire.com
Max Fordham	Construction engineers	www.maxfordham.com
MBDA	Defence	www.mbdacareers.co.uk
Met Office	Weather forecasting	www.metoffice.gov.uk
Museum of Science and Industry	Science communication	www.mosi.org.uk
NHS	Medical Physics (trainee or assistant healthcare scientist)	www.nhscareers.nhs.uk
NPL	Measurement standards	www.npl.co.uk
Oclaro	R&D engineer (optical)	www.oclaro.com/index.php
PA Consulting	Mgt./Syst./Tech. Consulting	www.paconsulting.com
Pilkington	Glass manufacture	www.pilkington.com
QinetiQ	Defence & security	www.QinetiQ.com
Reading Scientific Services	Scientific Research (food/consumer goods)	www.rssl.com

Redwood Technologies	IT hardware / software	www.redwoodtech.com
Renishaw PLC	Metrology Equipment	www.renishaw.com
Rolls Royce	Engineering	www.rolls-royce.com
Royal HaskoningDHV	Consult. Eng. & Env. Sci.	www.royalhaskoning.com
Schlumberger	Petroleum industry	careers.slb.com
Science & Technology Facilities Council	Scientific research (various)	www.stfc.ac.uk
SELEX Systems	Defence / transport	www.selex-si-uk.com
Sellafield	Safety / Technical Support / Project Management	www.sellafieldsites.com/careers/graduates
Shell	Energy	www.shell.com/home/content/careers
Siemens	Engineering, IT & business	www.siemens.co.uk/careers/en
STMicroelectronics(R&D)	Semiconductor technology	www.st.com
Tata Steel	Steel manufacture	www.tatasteeleurope.com/en
Tesco	IT graduate trainee (retail)	www.tesco-careers.com
TEFL	Teaching English as a Foreign Language	www.tefl.com; www.interacnetwork.com/recruit; www.cactustefl.com; etc
Tessella	Technology & consulting	www.tessella.com
Testled	Web / mobile development	testled.com
Thales	Defence / transportation	www.thalesgroup.com
Toshiba Europe	Research scientist (electronics)	www.toshiba.eu
Transport Research Lab.	Transport research / consultancy	www.trl.co.uk
TWI Ltd	Research / consultancy	www.twi.co.uk
Tynemarch Systems Engineering	software eng / consultancy (environmental / water)	www.tynemarch.co.uk
UK Atomic Energy Authority	Government body (fusion research)	www.uk-atomic-energy.org.uk
United Utilities	Water and wastewater	www.unitedutilities.com
Universities & research institutes (various, UK and international)	Research fellow / post-doc	www.jobs.ac.uk

N.B. The above companies are looking to recruit graduates with degrees in Physics or related subjects. In addition over 60% of vacancies advertised for graduates in the UK don't ask for specific degree subjects. All these positions are **also** open to Physics and Astronomy graduates.

Careers Fairs

Come and meet potential employers at one of our annual careers fairs:

- Engineering, Science & IT Fair: Tuesday 30 October 2012, Octagon
- Business & Finance Fair: Wednesday 31 October 2012, Octagon
- Spring into Jobs Fair: Wednesday 6 March 2013, Octagon
- Summer Recruitment Fair: 10-21 June 2013 (online)

For details of these and other fairs, go to: **www.sheffieldcareersfairs.ac.uk**. For information about careers fairs in other parts of the country: **www.prospects.ac.uk/links/careerfairs**

Applications, interviews and assessment centres

Competition for jobs is often strong. Ensure your applications are effective by getting help from the Careers Service: **www.shf.ac.uk/careers/students/gettingajob**, which includes link to help with CVs, covering letters, application forms, interviews and assessment centres.

Graduates

University of Sheffield graduates can use the Careers Service for up to three years after graduation.