UNIVERSITY OF BIRMINGHAM

College of Engineering and Physical Sciences

What do Birmingham postgraduates do?

School of Metallurgy and Materials

First destinations of postgraduates

- Analysis of first employment destinations for the College of Engineering and Physical Sciences
- Employability data for Metallurgy and Materials postgraduates, 2009–13
- Illustration of the range of occupations undertaken by our postgraduates

www.birmingham.ac.uk/metallurgy-materials

Foreword

I AM DELIGHTED TO INTRODUCE 'WHAT DO BIRMINGHAM POSTGRADUATES DO?' WHICH LOOKS IN DETAIL AT THE FIRST DESTINATIONS OF OUR METALLURGY AND MATERIALS POSTGRADUATES AND AT EMPLOYMENT PROSPECTS FOR ALL POSTGRADUATES WITHIN THE WIDER COLLEGE OF ENGINEERING AND PHYSICAL SCIENCES.

In addition to providing accessible information on employment destinations, this publication is also designed to give an insight into the kinds of employment sectors and jobs for which a postgraduate degree at Birmingham can prepare you.

Pursuing a postgraduate degree offers you the opportunity to explore your chosen area of interest in depth, as well as developing your knowledge and understanding in a subject area about which you are truly passionate. Beyond the transferable skills that you will take with you into the workplace, your postgraduate qualification will give you the chance to engage in critical enquiry, to grow as a scholar and even to become an expert in your field.

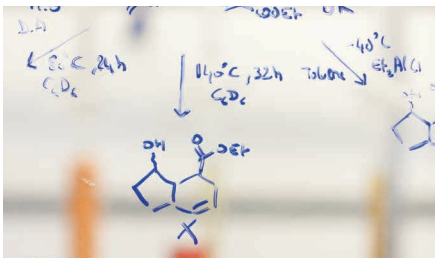
Here, we show you how your postgraduate qualification can help you make that knowledge and expertise work for you after graduation. For the school that is most relevant to you in the College (Chemical Engineering; Chemistry; Civil Engineering; Systems Science; Electrical, Electronic and Systems Engineering; Mathematics; Mechanical Engineering; Metallurgy and Materials; or Physics and Astronomy) you will see a snapshot of the achievements of our postgraduates six months after graduation. All data is taken from the results of a 'Destinations of Leavers' survey issued to our postgraduates after this time.

You will be able to see, by school, how many of the postgraduates who replied to this survey successfully entered employment and/or further study within just six months, along with a range of the diverse and exciting career opportunities that will be open to you after studying for a postgraduate degree in the College of Engineering and Physical Sciences.

Accompanying the data are case studies in which recent postgraduate alumni share their experiences of postgraduate study at Birmingham. Here, our alumni talk about the value inherent in postgraduate study, the knowledge and skills they developed during their degrees and where their qualifications have taken them since graduation.

I hope you find the information presented here useful and our alumni stories inspiring. We very much look forward to welcoming you to our campus soon.

Professor Mark Sterling
Director of Postgraduate Programmes
College of Engineering and Physical Sciences



'At Atkins, most of our roles have a minimum requirement of a Masters degree. We value technical knowledge and academic achievement, which we can then build on for the graduate programme. This is why we require most of our graduates to have a Masters.'

Kate Poade, Assistant Graduate Recruitment Advisor, Atkins.

College of Engineering and Physical Sciences

Employability

The College of Engineering and Physical Sciences is at the leading edge of modern science and engineering, transforming our understanding of the world to make life easier, healthier and more sustainable.

The College covers a broad range of world-leading research, from developing micro-engines to particle physics research at CERN. With a century of excellence in research and teaching, the College offers exciting initiatives in new fields of study and spearheads activities in strategically important STEM subjects – Science, Technology, Engineering and Mathematics.

The College of Engineering and Physical Sciences plays a significant role in creating new knowledge, training new generations of engineers and scientists, and interfacing with industry.

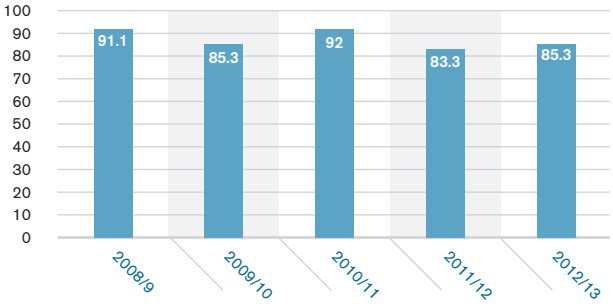
The College consists of the following nine schools:

- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science
- Electronic, Electrical and Systems Engineering
- Mathematics
- Mechanical Engineering
- Metallurgy and Materials
- Physics and Astronomy

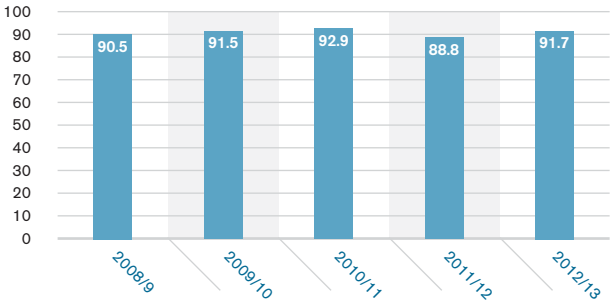
Over the last five years, 90.9% of taught postgraduates and 92.5% of research postgraduates from the College of Engineering and Physical Sciences have been in work and/or further study just six months after graduating.

The two charts to the right show the breakdown of these statistics for each year, for taught postgraduate and research postgraduate respondents.

Percentage of Engineering and Physical Sciences taught postgraduate respondents in work and/or further study six months after graduation



Percentage of Engineering and Physical Sciences research postgraduate respondents in work and/or further study six months after graduation



SOURCE: *Destinations of Leavers from Higher Education Institutions*, Higher Education Statistics Agency, 2009–13

'I had a great time during my PhD in Metallurgy and Materials. It's hard to pick out one highlight as everything was great: the life on the campus, my supervisors and my colleagues. Living and studying at Birmingham definitely met my expectations: I enjoyed both the international atmosphere and the British culture, as studying at Birmingham offers you both.

'My PhD was the starting point for me in research. The knowledge I acquired during my PhD helped me to get a job immediately after completing my project. I worked initially at the prestigious Max Planck Institute for Metals Research in Stuttgart, Germany, with some of the best researchers in the field of materials science.

'Come to Birmingham and you'll have a time to remember!'

Dr Amalia Catanoiu Soare, PhD Metallurgy and Materials, graduated 2003
Amalia is now Senior Researcher at the National Research and Development Institute for Cryogenics and Isotopic Technologies, Râmnicu Vâlcea, Romania.

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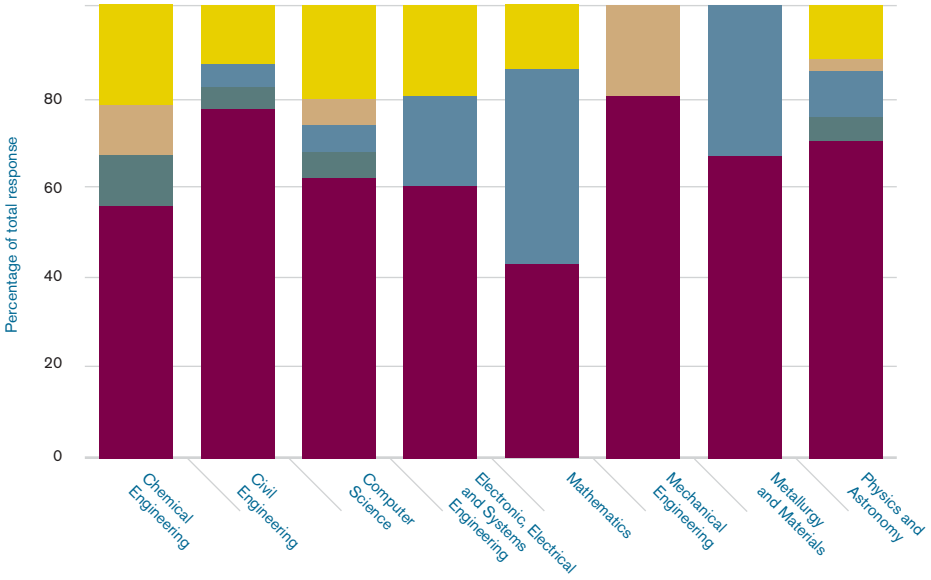
College of Engineering and Physical Sciences

Postgraduate destinations

Taught postgraduate destinations

The chart to the right summarises the destinations of Engineering and Physical Sciences taught postgraduates from the 2012/13 academic year, six months after graduation:

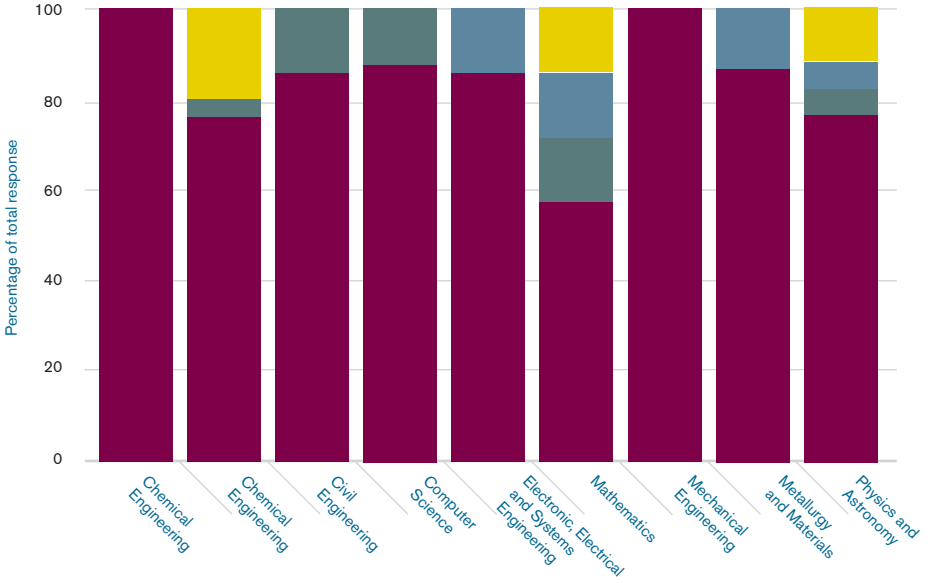
- Working
- Working and studying
- Studying
- Other
- Unemployed



Research postgraduate destinations

The chart to the right summarises the destinations of Engineering and Physical Sciences research postgraduates from the 2012/13 academic year, six months after graduation:

- Working
- Working and studying
- Studying
- Unemployed



SOURCE: *Destinations of Leavers from Higher Education Institutions*, Higher Education Statistics Agency, 2009–13

'The whole experience of doing a PhD at Birmingham was magnificent. The excellent research facilities of the University coupled with the world-class professors guaranteed a very successful research project. Birmingham offered me great opportunities for a balanced work–life experience – a nice tranquil campus to work on and a vibrant cosmopolitan city to live in and enjoy.

'A PhD from Birmingham was the ticket for me to enter academic life as a professor. It was also the first academic step for me and contributed greatly to building a strong and fundamental understanding of Materials Science and Engineering research. I now have an academic position and am involved in teaching, research and service. It is a nice and smooth continuation of my PhD research topics. I have published a number of papers and I have worked closely with US companies on developing products. I have also taught a number of engineering undergraduate and graduate classes.

'I wholeheartedly recommend the University of Birmingham for anyone considering postgraduate studies. I am sure they will enjoy every moment.'

Kostas Sierros, PhD Metallurgy and Materials, graduated 2006
Kostas is now an Assistant Professor at West Virginia University.

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School of Metallurgy and Materials

EMPLOYABILITY

The School of Metallurgy and Materials has an international reputation and welcomes high-calibre students from materials, physics, chemistry, life sciences or engineering backgrounds to undertake a range of postgraduate programmes.

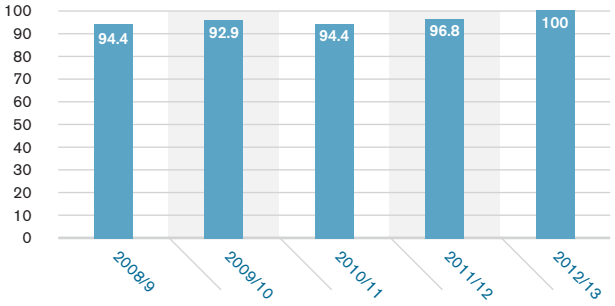
Highlights:

- 95.7% of respondent postgraduates from Metallurgy and Materials over the past five years were in work or further study six months after graduation
- 100% of all Metallurgy and Materials postgraduate respondents from 2013 successfully found work or further study within six months of graduation

Many of Birmingham's Metallurgy and Materials graduates go on to pursue careers related to metallurgy and materials science in the engineering and manufacturing industries. With the specialist skills and knowledge developed during their postgraduate degree, many of our postgraduates work for a range of companies in areas such as mechanical engineering; raw materials; vehicle and aeronautical manufacturing; construction and contracting; oil and energy; and consultancy. Many others secure postdoctoral research positions and continue their careers in academia and research and development.

The two charts to the right show results from 'Destinations of Leavers' surveys for our Metallurgy and Materials postgraduates over recent years.

Percentage of research postgraduate respondents in work or further study six months after graduation



SOURCE: *Destinations of Leavers from Higher Education Institutions*, Higher Education Statistics Agency,2009–13

RANGE OF OCCUPATIONS

Below is an overview of the kinds of employment sectors, organisations and professions that recent Metallurgy and Materials postgraduates have entered, based on responses to 'Destinations of Leavers' surveys conducted six months after graduation.

Range of employment sectors

- Aerospace industry
- Higher Education
- Manufacture of engines and turbines
- Manufacture of instruments for measuring, testing and navigation
- Manufacture of motor vehicles
- Manufacture of fabricated metal products
- Research and experimental development in natural sciences and engineering
- Technical testing and analysis

Range of employers

- Alcoa Manufacturing Ltd
- BAE Systems
- Baosteel Group
- e2v (technology systems and components)
- GE Aviation
- Festo (pneumatic and electrical automation technology)
- Honda GB Limited
- Jaguar Land Rover
- Micro Materials Ltd
- Rolls-Royce
- Simatelex Manufactory
- Smithers Rapra (rubber testing and analysis)
- University of Birmingham

Range of occupations

- Corrosion Scientist
- Development Metallurgist
- Fatigue Test Engineer
- Manufacturing Engineer
- Material and Process Modelling Engineer
- Materials Scientist
- Principal Stress Technologist
- Product Development Engineer
- Project Leader
- Research Fellow
- Specialist Welding Engineer
- Teacher