

Postgraduate courses

If you have completed an undergraduate degree and are looking for a change in direction, or to further qualify in a particular industry, we have a range of courses that can equip you for that next step. You may want to consider our taught degrees, or to combine it with research. If you aren't sure what the best step is but have an industry in mind, please contact one of our theme champions who will be happy to discuss your options and help you choose the direction that is right for you.

Physics and Technology of Nuclear Reactors MSc

[Open all sections](#)

- Running for over 50 years and greatly respected by all corners of the Nuclear industry, this course demonstrates through close contact with the industry how nuclear power meets the energy and environmental challenges of the 21st century. Studentships are often sponsored by the nuclear generation industry in the UK and these provide excellent and effective entry routes into careers in this stimulating field for physicists, mathematicians, metallurgists or engineers. Career opportunities are excellent, greatly aided by the fact that the project phase is usually undertaken within the industry; two thirds of graduates in recent years have had job offers in the industry before completing their studies.

[Physics and Technology of Nuclear Reactors MSc \(http://www.birmingham.ac.uk/students/courses/postgraduate/taught/physics/physics-technology-nuclear-reactors.aspx\)](http://www.birmingham.ac.uk/students/courses/postgraduate/taught/physics/physics-technology-nuclear-reactors.aspx)

Nuclear Decommissioning and Waste Management MSc

Set to open in 2012, this MSc has been developed in response to the UK's growing industry in nuclear waste management. For more information please contact **[Dr Paul Norman \(mailto:pin.np.ph@bham.ac.uk\)](mailto:pin.np.ph@bham.ac.uk)**. **[pin.np.ph@bham.ac.uk \(mailto:pin.np.ph@bham.ac.uk\)](mailto:pin.np.ph@bham.ac.uk)**

Materials for Sustainable Energy Technologies MRes

One of the greatest challenges with respect to new energy technologies is the creation of materials able to perform in the extreme environments that these new technologies create. If your background is in materials science or engineering and you would like to specialise, this course will take you in exciting new directions.

[Materials for Sustainable Energy Technology MRes \(http://www.birmingham.ac.uk/students/courses/postgraduate/combined/metmat/materials-sustainable-energy-tech.aspx\)](http://www.birmingham.ac.uk/students/courses/postgraduate/combined/metmat/materials-sustainable-energy-tech.aspx)

Railway Systems Engineering and Integration MSc/Diploma/Certificate

Railways are key to the UK's transport past, present and future, and present a vast array of complex engineering and logistical issues, from the design of carriages and track testing to the effects of climate change on the stability of the ground under the rails. This course equips students from science backgrounds to take on these challenges, and is often taken by those already working in the railway sector to continue their professional development.

[Railway Systems Engineering and Integration MSc/Diploma/Certificate \(http://www.birmingham.ac.uk/students/courses/postgraduate/taught/civeng/railway-systems-engineering.aspx\)](http://www.birmingham.ac.uk/students/courses/postgraduate/taught/civeng/railway-systems-engineering.aspx)

Other Energy Options

Taking an energy specific postgraduate course is not the only way to get into an energy career. All departments aligned with energy research at Birmingham offer Masters degrees in their general field, which can teach you more about the underlying science and technology: For example, if you are interested in the Built Environment and Sustainable Cities themes, then a postgraduate qualification in Civil Engineering would be a step in the right direction. For more information on specific course content and applications to energy technology, please visit the relevant school's website and contact the designated course leader.