

Undergraduate degree courses



Materials Science and Engineering

- [BEng in Metallurgy \(JJ25\)](/schools/metallurgy-materials/undergraduate-courses/courses/metallurgy-beng.aspx)
- [BEng in Materials Science and Technology \(J5F2\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-science-technology.aspx)
- [MEng in Materials Engineering \(F2H1\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-engineering-meng.aspx)
- [MEng in Materials Engineering with Industrial Experience \(J200\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-engineering-industrial-meng.aspx)

Major/Minor Combinations

- [BEng in Materials Science and Energy Engineering \(JH58\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-science-energy-beng.aspx)
- [MEng in Materials Science and Energy Engineering \(FH28\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-science-energy-meng.aspx)
- [BEng in Materials Science and Engineering with Business Management \(J5NC\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-science-engineering-business-beng.aspx)
- [MEng in Materials Science and Engineering with Business Management \(FN22\)](/schools/metallurgy-materials/undergraduate-courses/courses/materials-science-engineering-business-meng.aspx)

Mechanical and Materials Engineering (Joint Honours)

- [BEng in Mechanical and Materials Engineering \(HJ35\)](/schools/metallurgy-materials/undergraduate-courses/courses/mechanical-materials-engineering-beng.aspx)
- [MEng in Mechanical and Materials Engineering \(HJ53\)](/schools/metallurgy-materials/undergraduate-courses/courses/mechanical-materials-engineering-meng.aspx)

Sports and Materials Science (Joint Honours)

- [BSc in Sports and Materials Science \(CF62\)](/schools/metallurgy-materials/undergraduate-courses/courses/sports-materials-science.aspx)

Nuclear Engineering/Science degree courses

- [MEng in Nuclear Engineering \(H822\)](/schools/metallurgy-materials/undergraduate-courses/courses/nuclear-engineering-meng.aspx)
- [BSc in Nuclear Science and Materials \(H821\)](/schools/metallurgy-materials/undergraduate-courses/courses/nuclear-science-materials-bsc.aspx)

Foundation Year

- [Metallurgy and Materials with Foundation Year \(JJF5\)](/schools/metallurgy-materials/undergraduate-courses/courses/metallurgy-materials-foundation.aspx)

The past hundred years have seen the exploitation of a great flood of new materials: aluminium, nylon, uranium, silicon, glass-fibre composites and many more. Presently a wave of new materials with similar potentials for exploitation such as high temperature superconductors, "diamond-like" carbon coatings, new magnetic materials and electrically conducting polymers is creating new opportunities and new challenges.

To meet these challenges a new University discipline and a new profession have emerged. Evolving from traditional metallurgy courses, the new science includes elements of solid-state physics, solid-state chemistry, polymer science and crystallography, which together provide a comprehensive understanding of the unique structure and properties of individual materials.

Out of this new science have come the new materials engineers. Understanding how engineering properties derive from the nature of the material, they are developing and exploiting the science. The materials engineer can now design rather than simply select the properties he or she needs in a whole range of materials including metals, ceramics, glasses, polymers, and composites. Metallurgists and materials engineers work at the forefront of new technology, with designers and engineers of every discipline, and enjoy exceptionally high employment prospects.

Metallurgy and Materials Science at Birmingham is a major research centre with world class facilities. Our students experience the whole range of materials science technology and engineering. They have a strong science base and as professional engineers have every prospect of working with new ideas which encourage the application of science. If you like the idea, please [get in touch](/schools/metallurgy-materials/undergraduate-courses/ug-contacts-met-mat.aspx).

