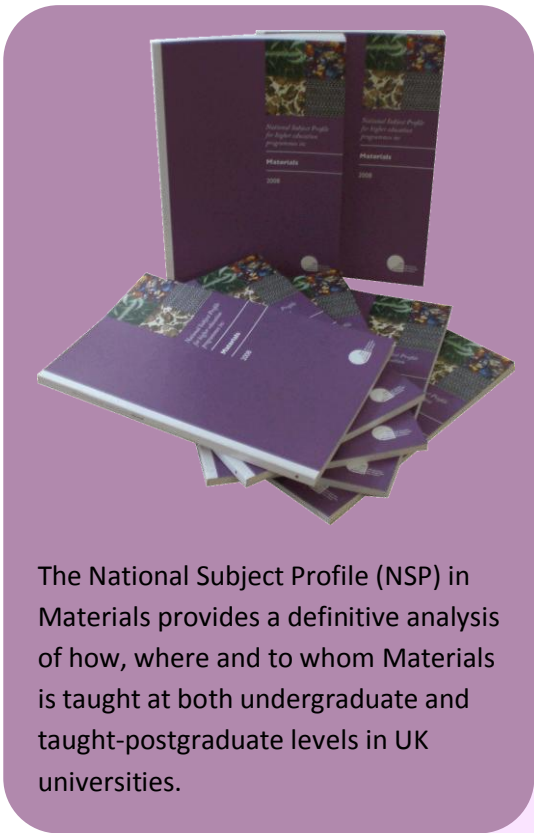


The National Subject Profile in Materials



The National Subject Profile (NSP) in Materials provides a definitive analysis of how, where and to whom Materials is taught at both undergraduate and taught-postgraduate levels in UK universities.

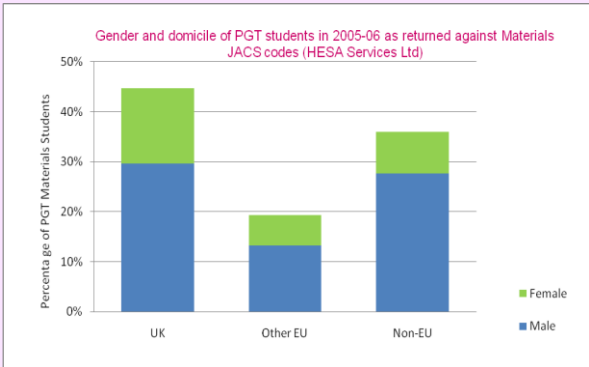
The Higher Education Academy and the UK Centre for Materials Education (UKCME) have published a profile of the Materials Science and Engineering discipline in higher education in the UK. This profile was developed by the UKCME in 2007 from both publicly accessible data and from extensive surveys within the Materials community.

It contains carefully sourced information about:

- numbers, demographics and trends of students enrolled on, and graduating from, UK Materials programmes
- the UK’s provision of Materials programmes
- the curriculum content and teaching methods used on Materials programmes
- the views and attitudes of academics teaching Materials, and recent Materials graduates
- how the Materials discipline has evolved in Higher Education, and the context in which it now operates

Key Findings

The NSP has identified over 100 undergraduate (BEng, BSc and integrated-MEng) Materials programme variants currently offered at 21 HEIs in the UK, including 14 BEng and 13 MEng general MSE programmes. Three Materials foundation degree programmes have also been recently launched. At taught-masters postgraduate level, programmes that are considered as being based primarily on the study of Materials are offered at 24 different HEIs, with 14 of these HEIs offering a general (advanced) MSE programme. Most Materials degrees are accredited by professional bodies, primarily the Institute of Materials, Minerals and Mining (IOM³) who currently accredits undergraduate Materials programmes at 14 HEIs.



Total student numbers on Materials based programmes are stable and the balance between the types of programmes is not changing rapidly. However, the last decade has seen a move towards interdisciplinarity with new programmes focussing on biomedical and sports Materials disciplines at some universities. There are as many Materials students entering taught-postgraduate Masters programmes each year as enter undergraduate programmes, and the number of research postgraduates is similar. Taught-graduate programmes attract a high proportion of international students with 64% being non-UK residents.

There is a large measure of commonality across UK Materials programmes in terms of the curricular topics, but variations exist between institutions in the emphasis given to these different topics. There are also variations in the 'student contact' time demanded by different programmes, but the average approaches 20 hours per week. The dominant mode of teaching is the lecture, with a significant amount of project work and laboratory exercises. Materials teaching staff are predominantly male (14% female) and their modal age range is 40-50.

A survey of recent Materials graduates (mostly in industry) reveals that a large majority are happy with the content of their degree programme and offers some guidance on the relative importance in employment of the topics studied and skills acquired. Amongst many issues, the survey reveals how these graduates became aware of Materials as a discipline, and why they chose to study Materials. General information about graduate employment rates and industrial sectors, as well as numbers continuing into further study, are also presented.

How can we help?

UKCME can help by:

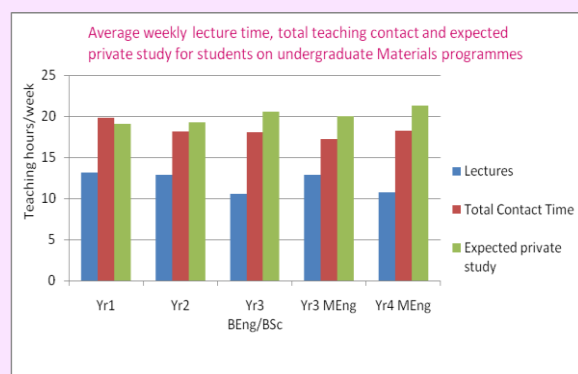
- Putting you in contact with the staff involved in producing the report;
- Running a workshop in your Department, Faculty, School or College to discuss the findings of the Materials Subject Profile.

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Materials academic staff and heads of Materials Departments also give their views of the current challenges they face, and strategies developed in response to these challenges. Challenges include the number of applicants for Materials undergraduate programmes, the external (especially financial) pressures felt by students, the increased administrative burden of recent changes in quality assurance procedures, and adapting to the changing academic background of the Materials student population.

A paper copy of the report can be sent out on request or, alternatively, the full report and data appendices can be accessed online at <http://www.materials.ac.uk/subject-profile/report.asp>