

UNIVERSITY EDUCATION IN THE UK

J. BILLOWES

*The Dalton Nuclear Institute, The University of Manchester
Pariser Building, Manchester, M60 1QD, UK*

The UK consists of four countries: Northern Ireland, England, Wales and Scotland. Each has a slightly different pre-university education system. In Northern Ireland, England and Wales university entrance is at the age of 18 after “A-levels”. In Scotland university entrance is traditionally at 17, but this adds a year to the university first degree courses.

The top tier of 20 research-intensive “Russell Group” universities account for 65% of UK university research income, 56% of all doctorates and over 30% of all students studying in the UK. These universities are: Birmingham, Bristol, Cambridge, Cardiff, Edinburgh, Glasgow, Imperial College London, King’s College London, Leeds, Liverpool, London School of Economics, Manchester, Newcastle, Nottingham, Queen’s University Belfast, Oxford, Sheffield, Southampton, University College London, and Warwick.

The second tier “1994 Group” are Bath, Birkbeck University of London (UL), Durham, East Anglia, Essex, Exeter, Goldsmiths UL, Royal Holloway UL, Lancaster, Leicester, Loughborough, Queen Mary UL, Reading, St Andrews, School of Oriental & African Studies, Surrey, Sussex, Warwick, and York.

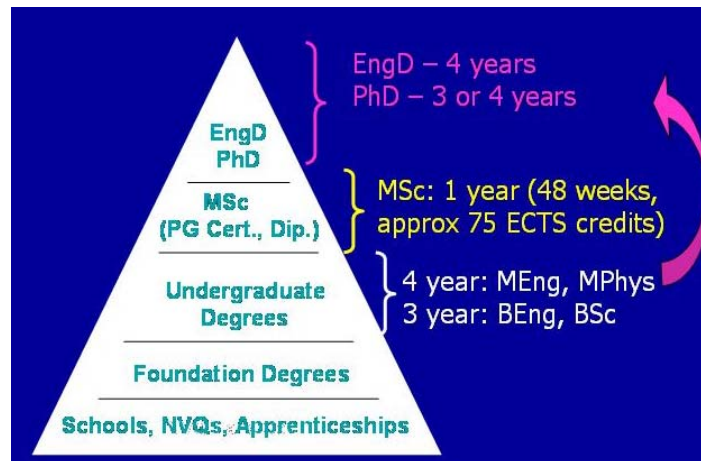


Figure 1. The education ladder in the UK

Figure 1 shows a simplified education ladder for the UK. Most of the first and second tier group universities offer both 3-year Bachelor (BSc, BEng) and 4-year “Integrated Masters” (MPhys, MEng, MSci) undergraduate degrees. Most universities have a higher progression threshold for the Integrated Masters and this is the preferred qualification for entry to a PhD (or “DPhil”) programme.

In most UK universities the academic year is split into two 12-week teaching semesters. The student loading is 120 UK credits or approximately 60 ECTS per year (1200 hours of application). Current ECTS guidelines indicate that one credit stands for about 25-30 working hours. Current practice in the UK is to equate one ECTS credit with two UK credits. One UK credit is generally recognised to represent 10 notional learning hours, so that one ECTS credit in UK terms would equate to approximately 20 notional hours of learning.

The Bachelor and Integrated Masters degrees are classified (1st Class, 2.i, 2.ii, 3rd, Pass, Fail). Entry onto a PhD programme requires a 2.i or above (Integrated Masters degree preferred) or a postgraduate Master degree (MSc). Entry onto a postgraduate Masters Degree (MSc) requires a 2.ii or above.

The UK postgraduate MSc degree tends to serve a different purpose to the European Masters. It is a one-year full-time programme of 48 weeks duration (rather than two semesters) and typically has 120 UK credits of taught courses and a 60 UK credit project and dissertation. Using the conversion above 180 UK credits for the MSc equates to 90 ECTS credits, but this is probably an over-estimate and anyway there is a maximum limit of 75 ECTS that can be earned in a single year. The MSc is typically used by students wishing to move across into a different field. Thus students from general engineering or physical science undergraduate degrees can acquire the necessary nuclear knowledge from an MSc programme to allow them a favoured route into the nuclear industry or to start PhD research in a nuclear-related area. The UK MSc also offers an alternative route to a PhD programme to students who did not achieve a 2.i in their first degree. The degree is often but not always classified (Distinction, Merit, Pass, Fail). MSc degrees may be taken part-time over three to five years. There is little enthusiasm in the UK to make the MSc Bologna-compatible.

At Masters level there are related awards of Postgraduate Certificate (60 UK credits of taught courses) and the Postgraduate Diploma (120 UK credits of taught courses).

At Doctoral level the standard PhD (or DPhil at Oxford and a few other universities) has traditionally been a 3-year programme. Research Councils who provide studentships for these degrees are now beginning to recognise the benefit of additional taught courses in the programmes and the degree is being extended to 3.5 or 4 years.

The Engineering Doctorate (EngD) is a 4-year programme is an industry-based doctoral level research project but the programme includes additional technical training, a business management course and a professional development programme.