

- The construction industry employs 111 million workers around the world and consumes 40% of all materials extracted from the earth's crust

HIGHLY COMMENDED

Surveying Construction Futures Builds Sustainability at the University of Plymouth

Undergraduate degrees in construction and surveying are traditionally dictated by the requirements of professional bodies, and employers. As Paul Murray, Principal Lecturer in Environmental Building, notes: "introducing sustainable development issues beyond the scope of these requirements is not easy. However, we were the first British university to validate environment-themed construction and surveying degrees - back in 1996 - and wanted to build on this by greening all the degrees we offer on these topics."

An opportunity came in 2004, when the Higher Education Academy awarded Paul a National Teaching Fellowship. The first stage comprised an international literature review to identify around 100 specific knowledge/skill/value sets (some about generic sustainability and others more discipline-specific) that a sustainability literate construction professional would ideally possess. This was followed by a review of all programme specifications, module syllabi, course work, examination and dissertation activities against the sustainability requirements.



Paul Murray

The next stage was developing workshops to cover missing areas, and updating course curricula to reflect the audit findings. The workshop format and style was designed to be adaptable for three different target audiences - internal lecturers (through their integration into an internal departmental 'Away day'), lecturers in other institutions through incorporation into an international conference, and students.

All the fifty plus student attendees recommended that the workshops be integrated within the formal curriculum. This was done through a 20 credit 'project' based second year module, introduced in September 2007. At the same time many first and third year courses were modified to achieve more sustainable development content. (Second year ones were updated in 2006).

The outcomes of the sustainability audit process have been widely disseminated through academic papers, and other publications aimed at audiences involved in professional construction and surveying, and education for sustainable development. A copyright free "Sustainability in Construction Lecturers' Toolkit" - incorporating advice and exemplar student learning materials from 81 academics in 40 universities and colleges - has also been produced for the sector.

For Paul Murray, the benefits include "raising the awareness of construction and surveying graduates, with impacts both on their personal lives, and their ability to help the sectors they become involved in to respond to the enormous environmental and sustainability challenges that undoubtedly lie ahead. The changes have also motivated lecturers to embrace sustainability personally and professionally, and made courses more attractive to females, which is one reason for strong recruitment in recent years."

Judge's Comments on Course Content - Degrees (continued)

Sustainability concerns are of obvious relevance to construction and surveying, and professional bodies are requiring more time to be spent on them. However, the University of Plymouth's experience shows that proactive institutions can lead rather than follow, and that this can be beneficial not only for the environment, but also course recruitment and relevance. Its research-led basis, and dissemination activities, are also most impressive.