



Greening tomorrow's leaders: Designing sustainability curricula across disciplines at UEA

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This is a university-wide collaboration to develop curricula which would allow every UEA student to graduate with the ability to articulate a sustainability 'perspective' relevant to their field of study and to describe its relationship to other 21st century issues.

As part of a period of significant change in the HE sector, HEFCE and HEA have called on universities to embed sustainable development more strategically into the overall student experience. This means using learning, teaching and curricula to ensure that graduates are globally-aware and sustainability-literateⁱ.

The goal is to position UEA for excellence in teaching and collaborative curriculum design in the field of education for sustainability.

In the first phase we will review the literature on student, employer and academic interests in this area and identify the evidence for new teaching methodologiesⁱⁱ.

The second phase will map existing teaching provision in all Schools at UEA.

The third phase will convene representatives from each academic department to share ideas on how the variety of principles that underlie environmental sustainability relate to their discipline. It is hoped that this will lead to the development of new conceptual models for the relationship between 'sustainability' and the existing curriculum. In some Schools this may progress as far as the creation of a 'route map' for teaching.

Products

- Literature review of best practice teaching and learning in education for sustainability
Definitions of and priorities for ESD vary across academic disciplines and there seems to be little documentation about which aspects of sustainability might be best suited for which disciplines. A literature review will identify best practice tools, conceptual models and methodologies at HEIs internationally.
- Literature review of employer expectations
Conduct a literature review of the professional bodies and employment experts related to undergraduate degree subjects at UEA; identify expectations of knowledge and skills related to sustainability for those professions; interview Careers Office.

- Map existing provision of sustainability-related teaching and learning
Identify existing educational provision related to environmental sustainability
- 'Route map' for curriculum change in each discipline
Convene departmental representatives (experts, champions or Heads) to articulate key themes within each discipline. Design a stepped pathway to integrate the most relevant aspects of sustainability knowledge and skills in their disciplines. Include Student Union representative and Healthy Planet representative in discussions.

Process

This project will identify conceptual models and teaching content in each discipline that respond to student and employer interests. We hope to initiate a process of communication and collaboration across Schools to produce new knowledge and practice in each academic discipline. The route map will create pathways to guide curricular change and integration and recognise and promote excellence and may enhance student experience by strengthening the UEA 'brand' as a destination for students interested in sustainability.

Potential for external impact

Although there are a growing number of specialist institutes and postgraduate degrees, little work has been done to integrate knowledge and skills on the relationship between human society and the environment into academic teaching at undergraduate level.

There is considerable interest from academic journals and conferences on embedding sustainability perspectives into existing curricula. There will be ample opportunity for publication in all disciplines.

PROJECT TIMESCALE: March - August 2012

ⁱ HEFCE's recent strategic plan on sustainable development in higher education states: 'Within the next 10 years, the higher education sector in this country will be recognised as a major contributor to society's efforts to achieve sustainability - through the skills and knowledge that its graduates learn and put into practice, its research and exchange of knowledge through business, community and public policy engagement, and through its own strategies and operations.' (HEFCE 2008/18). It also recognizes the student body as a valuable partner and has committed to support the Higher Education Academy's work to identify and share good practice in sustainable development in the curriculum. (See Appendix A). HEA has committed to help institution and subject communities develop curricula and pedagogy. It co-sponsors a cross-sector community of practice called Sustainability in Higher Education Developers (SHED) which has published a Handbook of Sustainability Literacy (Stibbe, 2009) describing which skills graduates need for the 21st century. The HEA 'Green Academy' (2011) has worked with eight universities to embed sustainability curricula throughout the university and other HEIs have been identified as centres of excellence (Bristol, Canterbury Christ Church, Gloucestershire, Keele, Kingston, Nottingham, Plymouth, Southampton, Swansea, Trinity St David, Worcester).

ⁱⁱ UNESCO's (2005) key characteristics of education for sustainable development include:

- (1) to be interdisciplinary and holistic, i.e. embedded across the whole curriculum;
- (2) to be participatory, i.e. learners participate in decisions on how they are to learn;
- (3) to be locally relevant, i.e. address local as well as global issues, and use the [disciplinary] language which learners most commonly use.