

RESPONSE FROM THE ENVIRONMENTAL EDUCATION COMMITTEE OF
THE INSTITUTION OF ENVIRONMENTAL SCIENCES
ON THE HEQC DRAFT DISCUSSION PAPER
"WHAT ARE GRADUATES? CLARIFYING THE ATTRIBUTES OF
GRADUATENESS"

1. In the case of graduates of Environmental Sciences, we feel that it is particularly important that they should possess a wide range of skills and be able to readily use them at a reasonable level and provision for this is usually made in all first degree programmes. With the large number of degree programmes which come under the general umbrella of 'environmental sciences' it is essential that potential employers can be assured that all graduates in this field will have a set of 'core skills' along the line of those quoted in paragraphs 20-21 (page 9) of the Draft Discussion Paper, in addition to 'core subject knowledge'.

2. We feel that the six most important attributes are as follows:
 - (a) **Literacy.** This attribute is clearly taught throughout the academic experience but standards seem to have fallen to such an extent that it can no longer be assumed that a graduate will be adequately literate. This should not be tolerated.
 - (b) **Numeracy.** Equally important, the same is sadly true for this attribute as for literacy.
 - (c) **Articulateness and the ability to present a reasoned argument.** The maturity and ability to communicate clearly is essential. This is especially so in the field of environmental sciences because of the need to be able to present scientific argument and information in a manner and format that is comprehensible in simple terms to lay people while at the same time being scientifically rigorous.
 - (d) **Knowledge integration.** The ability to integrate knowledge across disciplines is particularly important in the very broad field of Environmental Sciences, where there are many different interpretations of what this field encompasses. In addition under this heading, a graduate should have the ability to search for, find and integrate information from many different sources.
 - (e) **Management of tasks.** The ability to be able to select and focus on prioritised objectives.
 - (f) **Teamwork.** The ability to work efficiently and harmoniously in small groups.

It should be the responsibility of those constructing and validating/reviewing degree programmes (including accrediting professional institutions where appropriate) to ensure that such skills are explicit; the relevant Board of Examiners and indeed the HEFC Subject Assessment processes should be in a position to determine whether or not the student possess these attributes by the time of graduation, though *formal* assessment may not be possible or indeed desirable. It should soon become apparent

from employment statistics and indeed employers if these attributes were grossly lacking in graduates of specific programmes/institutions.

3. The attributes mentioned above do indeed apply in general to graduates of all fields; the introduction of Modular degree programmes has helped to make it easier for identification and integration of such skills within individual modules. However, this should not lead to significant loss of specialist subject knowledge within the degree programme.

 5. In the light of the critical nature of many environmental issues and the urgency for action, the Institution of Environmental Sciences sees it as vital that ALL decision makers should have an understanding of the environment and of environmental issues. This awareness should therefore be expected of graduates in all disciplines.
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- 3 JUL 1996