Graduate Attribute Mapping in Science: Documentation of the Development of Graduate Attributes within the Faculty of Science

UNSW Science Contextualised Graduate Attributes

Based on the recommendations of participants of the UNSW Science Graduate Attributes Workshop (2004) and drawing upon the contextualised science graduate attributes of University of Sydney, six (6) UNSW Science contextualised graduate attributes have been identified (*http://www.science.unsw.edu.au/guide/slatig/learnandteach.html#ScienceGraduateAttributes*) and mapped to the UNSW Graduate attributes and DEST employability skills. In addition, suggested learning activities, strategies and assessment tasks are suggested for integrating the development of Graduate Attributes into the curriculum (http://www2.science.unsw.edu.au/et/downloads/EdSquad/Science_GAs_May2005.pdf).

Currently the Faculty of Science EdSquad (*http://www.science.unsw.edu.au/guide/slatig/edsquad.html*) is in the process of gathering information on which UNSW Science contextualized graduate attributes are developed in courses offered by the Faculty. This information will be used to map the development of graduate attributes within a programme and support the Faculty in communicating what has often been implicit about the teaching of graduate attributes. It will also support the planning of new initiatives. It is anticipated that the process will align student study and career plans, enable assurance of quality and continual improvement.

Evidence Collection

The EdSquad is assisting UNSW Faculty of Science teaching staff in the process of mapping graduate attributes and their development within courses and ultimately programmes. The purpose is to determine:

- Which of the Science contextualized graduate attributes already exist within courses offered by Schools and the level of focus/development?
- Where, within an activity and its assessment, do opportunities lie for the development of graduate attributes?
- How can graduate attribute development be made explicit within course outlines and also in teaching practice?

To assist with the collection of this information the EdSquad has developed a spreadsheet data collection 'tool' which has been made available to all UNSW Faculties and can be accessed via *http://www.science.unsw.edu.au/guide/slatig/learnandteach.html#ScienceGraduateAttributes*. This tool provides a common format and facilitates the documentation of activities undertaken within a course with the graduate attributes the activities develop and then aligns the assessment strategies used for that activity.

The EdSquad is currently holding information workshops and assisting course developers and convenors with the documentation of graduate attribute development (for examples see: *http://www.science.unsw.edu.au/guide/slatig/learnandteach.html#ScienceGraduateAttributes*). This process is both consultative and collaborative. To date mapping has been initiated in Psychology (mapped 2 main first year courses), Physics (mapped 51 courses), BABS (mapped 2 courses), BEES, Safety Science and Material Sciences and Engineering. Both Psychology and BABS have further contextualised the six UNSW Science graduate attributes for their disciplines. .

The Faculty of Science has been involved in the development and trialling of a UNSW Student Graduate Attribute Portfolio. The School of Psychology has embedded this portfolio into both curriculum and assessment in the introductory 1st year BPsyc course.

Quality Assurance
Measuring evidence of actual development of the contextualised graduate attributes as opposed to mere documentation of anticipated development is seen as being vitally important. At this stage we envisage that such quality control follow up could be achieved through, e.g., self-reflection teaching portfolios, teacher peer assessment , student exit surveys, and / or the use of the 'UNSW Student myPortfolio' (*http://www.portfolios.unsw.edu.au/default.cfm?ss=0*).

Ongoing Curriculum Mapping
Strategies for integration of teaching that develops graduate attributes into the curricula will be addressed once the documentation of the current status of their development and the extent of their development is documented. The documentation and mapping tool are not intended to be a static package but will continue to be developed as knowledge and experiences is gained and as needs are revealed.