

## Background

The DTI sponsored Valid Analytical Measurement (VAM) programme helps organisations in the UK to carry out analytical measurements competently and accurately. The programme enables the UK organisations to demonstrate the comparability of analytical measurements with those of their trading partners and provides working laboratories with the 'tools' needed to implement best practice and demonstrate the reliability and integrity of their results.

Measurement is an essential part of science. It is only by introducing and reinforcing the principles of good measurement practice at all levels in the educational system that the future workforce will have the necessary measurement skills required by industry. It is possible to collect data very quickly using a range of equipment and instrumentation. Students carry out a variety of measurements during the course of their studies and often assume that the results are reliable, without any evidence to demonstrate this fact. The VAM programme contains projects targeted specifically at the tertiary education sector. The aim of these projects is to raise awareness of the importance of reliable measurement and to provide resources to enhance the teaching of sound measurement practice. In the current and previous programmes activities specifically for the tertiary sector have included:

- Delivery of workshops and lectures at universities to undergraduate and postgraduate students studying courses with an analytical component
- Organisation of workshops on measurement uncertainty, statistics and method validation for postgraduate students
- Web-based QA Training Resource
- Help@Postgrad\_Studies\_OK: Guidance on how to plan postgraduate studies and ensure conclusions are based on valid results
- Proficiency Testing exercise for MSc students
- Laboratory visits for students

Further information is available by visiting the training and education section of [www.vam.org.uk](http://www.vam.org.uk).

## Formulation of the 2006-2009 programme

LGC is currently formulating the projects that will form the next VAM programme, which will start in October 2006. An important aspect of the formulation process is an extensive consultation exercise to ensure that the projects meet the needs of their target audiences. Views are being sought on future activities which could support the teaching of analytical science in the university sector. Issues to consider include:

1. How can awareness of the importance of valid measurements and quality assurance be increased in the tertiary sector?
2. What other resources could enhance the teaching of quality assurance?
3. What subjects should be covered in workshops/seminars for students? (e.g. general quality assurance, quality control charting, method validation)
4. What subjects should be covered in workshops for lecturers? (e.g. would a 'measurement workshop' (covering real life measurement problems from a range of sectors, illustrating the approaches taken to ensuring valid data) be considered useful?)
5. How can we enhance the skills of students entering laboratory-based jobs after undergraduate or postgraduate study?
6. For which of the courses you are involved with (either undergraduate or postgraduate) are measurement issues particularly relevant?
7. Are there any particular courses which should be targeted (e.g. courses which include chemical analysis and/or evaluation of chemical data)?