CAIVIS TO Science and Engineering (1 of Adde

This proforma should be used to collate information from School Annual Monitoring Summaries.

The aims of Annual Monitoring are to maintain quality and improve provision encourage reflection. The form is designed to capture a **reflective summary** of annual monitoring activity at school and subject level. Bullet list format is encouraged.

| College | Science and Engineering consists of:   |
|---------|--|
|         | Chemistry;                             |
|         | Computing Science;                     |
|         | Engineering;                           |
|         | Geographical and Earth Sciences (GES); |
|         | Mathematics and Statistics;            |
|         | Physics and Astronomy and              |
|         | Psychology.                            |

## Reflection

Comment on what is working well? What needs work?

#### **PTES**

The results of the PTES were circulated to the Heads of Learning and Teaching in Science and Engineering in August. At school level, these were available only for Computing Science, Engineering, GES, and Physics and Astronomy. Presumably, for the other schools, the numbers of students responding were too low to publish. The overall satisfaction for GES and that for Physics and Astronomy were broadly similar to the average value for Russell Group universities. The result for satisfaction in Computing Science was well below average: the primary reason seemed to be that students thought they had an excessive workload. Engineering also had a satisfaction rating below average by a similar amount. In this case however, there did not seem to be one clear-cut cause. In part, this may stem from the fact that Engineering covers a range of academic disciplines.

### Engineering

PTES results were poorer than those of the NSS although the two cohorts are often taught together. The school believes that the MSc students - especially the international ones - have different expectations. They certainly come from a variety of backgrounds, which can make it challenging to teach them along with students on integrated masters programmes.

The students noted that some advisers of studies responded more rapidly than others (although this is a normal student complaint which is not confined to PGT students).

Problems were reported for students who started their MSc in January rather than September. The issues mostly related to their MyCampus record and to University Services apparently not recognising that the academic year runs from January to December for these students.

The students on the MSc in Product Design Engineering, taught jointly with the Glasgow School of Art (GSA), have encountered problems enrolling in courses and in accessing facilities at GU. This has been discussed by the Joint Board but needs to be resolved. In addition, communication between the registry at GU and GSA should be improved.

Some students commented that the poster presentation session at the conclusion of their projects was attended by few staff. This could be ascribed to the long-running issue of staff workload over the summer period. In Engineering, this is associated with the range of PGT provision, and the more recent increase in load caused by the school's TNE initiatives at SIT and at UESTC. More generally, the email traffic with which advisers have to cope during the summer, has escalated alarmingly.

#### **GES**

Some foreign students have been recruited despite having inadequate language skills. (Similar issues have been reported in Engineering.) The underlying problem is that GES currently has the same requirement as many of their key competitors. As a result, any raising of the language standard would likely have a negative impact on recruitment. Students are advised to participate in language support sessions. Although a more formal way of requiring and monitoring attendance at such sessions would be useful, implementing this approach would necessitate increased resources.

## Chemistry

Feedback from project supervisors and assessors suggests that students would benefit from more training in research and lab skills, including report writing, literature searching, and awareness of issues around plagiarism. These topics are covered by the Frontiers in Chemistry course, but perhaps not as extensively as would be desirable at PGT level. The PGT students do not currently take any lab-based courses.

### **Computing Science**

This year there were about twice as many students on the MSc IT and MSc SD programmes as last year. Staff coped well with the increased numbers and especially with the increased project supervision load. The availability of 22 SFC funded places attracted a number of very good candidates and overall the students performed very well, with an increased percentage achieving Distinctions and Merits.

## **Good Practice**

Comment on innovation? What practices should be recommended?

#### Chemistry

In the context of establishing policies on progress, the PGT Coordinator liaised with his counterparts in the other schools of the College, with the aim of devising consistent rules. These informal contacts among PGT Coordinators have subsequently evolved into a group with meetings to share ideas and best practices about PGT matters in general. This is particularly useful as PGT is not currently represented properly at College level.

## **Computing Science**

The MSc IT and MSc SD external stated: "Very good moderation in relation to projects. The inclusion of evidence of the resolution process where markers differ should be flagged as good practice in terms of transparency."

## Engineering

The School has developed a number of extra-curricular courses, particularly for international students, to assist with supplementing their knowledge and skills in the following areas:

- 1. Use of software packages such as Matlab, Abaqus and Solidworks: the aim is to provide certification of competence for students.
- 2. Research and report writing skills: developed in conjunction with SLS and Nathalie Sheridan in particular. This is currently being extended to poster preparation skills and, in future, to enhancing their language proficiency. This approach could be linked with the problems reported by GES.

Additionally, the School of Engineering has implemented a series of industry visits for the PGT students. A variety of companies have been selected to reflect the range of programmes provided. This has been prompted by a desire from international students to be more exposed to industrial practice. This activity could be extended across the College. However, if more schools opted to participate, the organisation is time consuming and may well be better managed and resourced at College level.

#### Physics and Astronomy

This year has seen the introduction of new opportunities for students to interact with staff and have a say on how the MSc programme is organised. For example, meetings with students have been held in an informal setting at the Gilchrist PG Club with food being provided. The meetings lasted typically between 1 and 2 hours and the discussion covered a wide range of topics related to the MSc course with some questions focused on its organisation. No major changes resulted from these meetings but the students appreciated the chance to interact with staff and relay their concerns and opinions in a more relaxed environment.

# **Improvement Plans**

What actions are being taken forward?

#### Engineering

All PGT programmes are in the process of being accredited by the relevant professional bodies, with accreditation visits arranged for May 2015.

## Chemistry

- Tutorials (based on L3 material) are being offered to support students in their learning and to remind them of material which is expected prior knowledge for their courses.
- In addition supplementary laboratory sessions will provide an element of practical training and give them an appreciation of UK lab standards.
- Class tests and practice exams will be arranged to familiarise students with the exam system and encourage revision.
- Accreditation with the Royal Society of Chemistry will be sought for both MSc programmes.

## **Closing Loops**

Comment on progress made on actions identified in last annual monitoring cycle

#### Engineering

The School reported either minimal or no progress on issues reported last year:

January intake of PGT students is still being driven mainly by the School of Engineering. This appears to be a reasonable marketing tool for recruitment but the College and University still do not seem to realise that systems have to change to deal properly with a January intake. – *No evident feedback or progress* 

The policy on preponderance continues to puzzle external examiners and staff. - *Policy reviewed and retained but with minor modification* 

## Chemistry

Obviously, it is reasonable to expect that PGT students should assume responsibility for their own learning by identifying and remedying gaps in their prior knowledge. Nevertheless, staff are willing to advise and support their efforts. In particular, students now have access to the comprehensive resources contained in the course material of Level 1 to Level 3, which has been made available on Moodle. This message was reinforced in the Course Handbook; at the induction session; and in one-to-one advisor meetings.

What matters (if any) need to be brought to the College or University's attention?

## College

## Engineering

Consideration should be given to separating PGT issues from the Graduate School and control over PGT should instead be handled by the Dean for Leaning and Teaching and the College Learning and Teaching Committee.

#### Chemistry

The responsibilities for PGT matters in the College are not clear. For instance, there is no PGT Chief Advisor, and it is not clear whether PGT falls under remit of the L&T Committee or the PGR Committee. This can lead to confusion and inefficiencies.

#### University

## Engineering

Consideration should be given to appointing a Chief Adviser of Studies for PGT students. This has been proposed to the Clerk of Senate and is under consideration.

## Psychology

The School of Psychology provided input necessary for the preparation of this report but they did not have any issues which required action at College or University level.

# **Hot Topics**

Do you have any comments on the following topics?

How would you like to see the VLE (moodle or other) develop to enhance the delivery of your courses?

# Engineering

Fix the integration of Moodle and Turnitin either directly or laterally.

Was student attendance at your courses maintained at an acceptable level throughout the year? If not, what strategies would you employ to improve attendance?

## Chemistry

Because the Students are generally keen and motivated, attendance is not a problem.

Are there any other topics you wish to comment on?

# Thematic Summary

Inadequate language skills possessed by some foreign PGT students.

Variety of prior knowledge among PGT students.

Suggestions to create PGT Chief Advisers and to move PGT matters from Graduate Schools to L&T Committees