

College of Science and Engineering College Annual Monitoring Summary (CAMS) Session 2011-12

Before completing this report please refer to:

## Code of Practice on the Annual Monitoring Process.

A College Annual Monitoring Summary (CAMS) should be completed for all provision within a College following receipt of School Annual Monitoring Summaries (SAMS) from School Quality Officers.

Colleges should compile a single CAMS for all Undergraduate and Postgraduate provision.

# Factual Data

Please describe the methods used to produce this report (eg School Annual Monitoring Summaries (SAMS), consultations with School Quality Officers (SQOs), sampling of course and programme AMRs, reference to minutes of meetings, College Learning & Teaching Plan and Learning & Teaching Strategy, correlations with internal and external student experience surveys, discussions at relevant committees etc) (suggested word limit of c.250 words)

This report was compiled mainly from the SAMS - Chemistry, Computing Science, Engineering, Geographical and Earth Sciences (GES), Mathematics and Statistics, Physics and Astronomy, and Psychology. During the year a Periodic Subject Review was carried out for the School of Physics and Astronomy. In April Electronics and Electrical Engineering was accredited by the IET, formerly the IEE.

Please provide any contextual factors at the time of reporting (eg University restructuring, local factors) (suggested word limit of c.250 words)

Five of the schools were departments before restructuring whereas Maths and Statistics were separate departments. The biggest upheaval has occurred in Engineering where four former departments (Aerospace, Civil, Electronics and Electrical, and Mechanical) were amalgamated.

# Reflection

#### Engaging and Supporting Students in their Learning

Please evaluate the effectiveness of the mechanisms used for obtaining and responding to feedback from students (e.g. questionnaires, Staff-Student Liaison Committees (SSLCs), Moodle quiz) (suggested word limit of c.250 words)

Staff-Student Liaison Committees, SSLCs, have proved to be the most effective organised method for students to report problems and for staff to bring issues to the attention of students. However, several SAMS mentioned the importance of informal small group interactions, with staff citing them as a valuable alternative channel for feedback.

In Chemistry, staff noted that feedback mechanisms seemed to work very well. In particular, informal feedback obtained during small group discussions was often the most honest and useful.

In Physics and Astronomy SSLC and questionnaires have proven to be effective mechanisms for feedback but these sources are often supplemented by small group supervisions, which allow students to give more personal observation in an informal forum.

In GES, course evaluations questionnaires are completed on-line at the end of each semester and are very effective with a high uptake. Student-Staff Liaison committee meets 3-4 times per year. Raising issues at this meeting tends to be a last resort for students as virtually all problems are dealt with informally by the programme leader or course co-

ordinators. Our open door policy means staff are always available to answer student queries during term and the accessibility of staff on residential field classes also encourages informal feedback from students about how the courses may be improved.

During session 2011-12, Statistics introduced a system to obtain informal feedback from students after a course had been running for a few weeks – this allows issues to be identified early enough so that they can be addressed now rather than wait for the end of semester when the solution does not benefit the current cohort of students.

# Equality and Diversity

Please comment on any Equality and Diversity issues identified in Annual Monitoring and how they will be/have been addressed (*suggested word limit of c.250 words*)

Comments in this category are thankfully rare. When they occur, they are often practical issues, which can be tackled by more sensible organisation or spending some money.

On a positive note Engineering reported Biomedical Engineering had the highest ratio of female to male amongst both the students and staff compared with other disciplines within the School of Engineering

## **Closing Loops**

Please comment on progress in addressing key issues from the previous session, including whether staff and students have been informed of the responses to the issues that they raised

Proposed change	Enacted / Ongoing	Staff & students notified (Y/N)
Chemistry		
The time taken to provide feedback has continued to improve and we will continue to use Moodle etc. to refine the process.	Ongoing	Y
Computing Science	Enacted	Y
Improving visibility of completion criteria.	Ongoing	Y
Tutor Preparation for use of Microsoft Access.	Ongoing	Y
Timing and marking of Free Programming Project.	Ongoing	Y
Engineering		
A timetable for coursework submission and return has been formulated and its implementation throughout the School is a priority.	Enacted	Y
School has yet to recover from large losses in academic staff prior to 2011-12. Updates provided at Discipline/School Meetings.	Ongoing	Y
Review of Civil and Aerospace Engineering in light of NSS results.	Ongoing	Y
Improving the provision of existing programmes (in particular the development of common curricula in years 1 & 2).	Ongoing	Y
EEE report concerns from PSR over the loss of a discipline level handbook.		Y
GES		
IT facilities and laboratory refurbishment.	Ongoing	Y
Grading proformas.	Ongoing	Y
Turnitin used for all essay submissions.	Enacted	Y

Maths and Stats		
Dissatisfaction with the student : staff ratio at tutorials was captured in feedback from Level 1 Mathematics and Statistics students in Session 2010-11. In Session 2011-12, this was addressed by a mix of having smaller tutorials in some classes and using more tutors in other classes (where mass tutorials are the norm). There is an ongoing problem with finding enough small rooms to have more, smaller tutorial groups – see below.	Ongoing	Y & N/A
In Statistics, the procedure for marking Honours projects was modified in line with suggestions from the External Examiner.	Enacted	Υ&Υ
In Statistics, the procedure for converting grades to and from the University of Bologna's system was resolved for Double Degree students.		Υ&Υ
Discussion of the principle of scaling marks in Statistics is continuing.	Ongoing	Y & N
Physics and Astronomy		
Suspension of EXCOS2.	Enacted	Y
New Honours course: Detectors and Imaging.	Enacted	Y
New Honours course: Peer to Peer Learning and Teaching in Physics.		Y
Pilot exercise: continuous summative assessment at Honours.		Y
Psychology		
Level 1 - course textbook reviewed by team.	Enacted	Y
Level 2 – course re-structured to 2 x 30 credits and practical teaching reviewed.	Enacted	Y
Level 3 – development of feedback calendars that were subsequently implemented across all years.	Enacted	Y
Level 4 – new guidelines and resources for the supervision of final year projects.	Enacted	Y
Post-graduate – joint programme with the School of Education in the provision of an MSc Psychological Studies conversion course.	Enacted	Y

Please describe the strategy for communicating responses to issues raised in this year's Annual Monitoring Reports to staff and students (*suggested word limit of c.250 words*)

The SAMS were sent to the school L+T Committees at the same time as they were passed to the College Quality Officer. The outcomes of the discussions in the school L+T Committees will be disseminated primarily via SSLCs. Similarly, the College report will be discussed at College L+T and then circulated to the School L+T Committees and the SQOs. The School L+T Committees should consider how best to ensure that this information reaches subject/discipline levels.

## Commentary on Results

Please comment on the results patterns identified in SAMS and any issues which have been noted by Subjects or External Examiners (*Please identify any deviations from the College norm which may require the attention of the College or the University*) (suggested word limit of c.250 words)

SAMS do not report any serious problems with results. Last year, data from the Planning Office was passed to the College Learning and Teaching Committee and Schools were asked to comment on courses which had both statistically significant numbers of students and failure rates greater than 20%. Schools were asked to identify remedial action taken or planned. In some instances (e.g. Chemistry) the planning office data was inaccurate. This was also problematic in Engineering where courses were tagged by the research division to which teaching staff were affiliated, rather than by their teaching discipline. Attempts to remedy are continuing at College level.

GES reported that the external examiners had provided very positive feedback on the structure of the course and on rigorous and fair assessments. One area of concern though was in the lack of consistency of moderation and a lack of transparency to the grading process. Subsequently, GES completely revised procedures for the moderation of assessed work. A more transparent (circulated to all students) and systematic approach has been introduced that is also more consistent across the School. New marking proformas and moderation sheets will be in place for use associated with the December exam diet.

# **Engagement with Strategy**

## **College Learning and Teaching Plan**

Schools have been asked to reflect on the following aspects of the College Learning and Teaching Plan through the School Annual Monitoring Summary:

- The College wishes to extend the global scope of the education we offer either by attracting foreign students to our PGT programmes or by offering our undergraduate programmes abroad in locations such as Singapore. What impact has this had within your school?
- The College hopes to improve efficiency by allowing more sharing of courses between schools where appropriate. Has this yet had an impact in your school?
- To enhance the student experience the College is continuing with implementation of the new advising system and attempting to rectify the initial deficiencies of MyCampus. How have staff managed to cope with these challenges?

Please comment on the topics above and any additional aspects of College Learning and Teaching Plan, as relevant.

Advisers are frustrated by the deficiencies of MyCampus. Because they spend so much time working around the failings of the software, they are prevented from devoting the time necessary to give considered academic advice to students. They are also disillusioned by the lack of reasonable improvements in the usability of the system for both staff and students.

#### Chemistry

Informal feedback from the new advisors within the School shows that they feel under-supported. The introduction of these new roles, on top of the new MyCampus system, makes the job significantly more challenging and has inadvertently created further work for the more experienced advisors, as they advise the new advisors.

#### Engineering

The introduction of the new advising system on top of the recent roll out of MyCampus was a source of great concern across the School. Staff from the Teaching Office are to be commended for their handling of numerous enquiries from staff and students regarding functionality (or lack of) and problems with course enrolment. However, MyCampus continues to have a detrimental effect on teaching, as staff struggle to extract basic information on which they rely. This extends, unfortunately, to staff and students in University of Glasgow Singapore, with some students unable to enrol correctly onto courses for five weeks, tying up valuable support staff time in trying to resolve such issues.

#### Maths and Stats

Many new advisers are frustrated because so much of the time and effort they expend on advising is not spent giving academic or personal support but dealing with mundane administrative difficulties, e.g. having to 'quick enrol' students due to timetable clashes.

#### **Physics and Astronomy**

The flexibility that is one of the unique strengths of our Science degrees inevitably required that our advisers had to undertake a considerable number of actions last autumn to update, and effect

changes to, the plans of their advisees. Our Advisors carried out these tasks as efficiently and professionally as possible, thus continuing to provide our customary excellent learning environment for students (this was specifically commended during our Periodic Subject Review).

### Psychology

This has been a challenging year for new advisers. The School's Senior Adviser and advisers with more experience have provided support for newer advisers. This has included formal training sessions within the School and within the College of Arts, and Moodle resources with Subject and College specific information.

Having vented their justified spleen at MyCampus, staff had much less to say on sharing courses and on Trans National Education, TNE. Timetabling represents a practical but significant impediment to the sharing of courses across schools. For comments on TNE, please see the section on collaboration.

# **University Learning & Teaching Strategy**

Schools have been asked to reflect on the following through School Annual Monitoring Summary in relation to the University Learning and Teaching Strategy:

• To what extent have Graduate Attributes been embedded in courses and programmes delivered in your School?<sup>1</sup>

Please comment on the topic above and any additional aspects of the University Learning and Teaching Strategy, as relevant.

#### **Computing Science**

We focus on these primarily in our third and fourth years, when the students have committed to being Computing Students. Our compulsory third and fourth year courses spend time developing these skills (Professional Skills and Issues in level 4). One of the elective courses that Honours students can take is specifically designed to expose students to the concepts of business, and what business wants from new hires in addition to technical expertise.

#### Maths and Stats

In the process of re-designing the Honours curricula in both Mathematics and Statistics in Sessions 2011-12 and 2012-13, members of staff have kept the graduate attributes agenda much in mind. For example, the existing *Writing and Presenting Mathematics* course was strengthened and the opportunity was taken to introduce new courses in *Professional Skills* and *Data Analysis* for Statistics students. These core Honours courses incorporate practice in oral and written presentational skills by having students give assessed presentations in front of the class, creating posters for presentation (with question sessions on their poster with two lecturers) and writing reports on analysis tasks.

#### **Physics and Astronomy**

As students progress through their degree programmes the School provides practical courses, which develop in-depth knowledge and encourage independent thinking. These provide effective vehicles for the embedding of transferable skills and graduate attributes, including communication and presentation skills and teamwork abilities.

## Psychology

Graduate attributes are embedded in psychology across all years, with the developments of subject specialists (success in this is evidenced by the high performance of many of our students); encouragement to be independent and critical thinkers (reflected in their coursework and tutorial performance); to be effective communicators (evidence in coursework and public speaking); collaborative (evidenced in the numerous small group activities we organise); ethically and socially

<sup>&</sup>lt;sup>1</sup> resources and information can be found:

http://www.gla.ac.uk/services/learningteaching/goodpracticeresources/graduateattributesemployability andpdp/)

aware (provided in lectures but also evaluation of the ethical issues raised by their own research); be reflective learning (evidenced in the encourage to peer-review and support peer assisted learning schemes). In addition in Level 3 all students complete a professional skills portfolio where they assess their own graduate attributes, consider their future career prospects, and assess market prospects.

In a couple of instances (Computing Science and GES), it was emphasised that acquiring transferrable skills must always complement - but not swamp - study of the core subject e.g. in Level 4 Geography, there was a need to tighten up ILOs for student presentations to rebalance expectation towards content and away from an over-emphasis on presentation technique.

# **Development opportunities**

## Managing the Learning Environment

Please:

- Comment on the general suitability of learning spaces utilised
- Comment on the responsiveness of Estates and Buildings, IT Services or College in resolving issues reported
- Provide a bullet point list of unresolved issues requiring the attention of the College or the University

PLEASE NOTE: any issues which can be dealt with immediately should be reported to Estates and Buildings, IT Services or College (as appropriate)

(Please give specific details of room locations, the precise nature of the problem and the remedy that you seek)

Issue/Comment	For the attention of: (College, University)
Comment from Chemistry : Note that this new form does not appear to provide space to reflect on matters that require attention beyond School level – most of the 'beyond School level' issues from last year remain unresolved (again) and will be included at the end of this form under development opportunities.	Quality Officers Forum
Chemistry : Issues raised were MyCampus absence reporting creating an increased workload for class-heads which could be offset by the previously requested teaching administrator. Lack of tutorial rooms in Joseph Black, inadequate heating, increased budget for teaching labs, random room bookings across campus,	University/College
GES : Earth Science L1: The John Macintyre building is not considered to be an adequate lecturing space. Many staff have teaching in the Gregory Building immediately following lectures that are scheduled by Central Room bookings (and now MyCampus) in the outer reaches of the Campus. We appear to have settled on a staggeringly inefficient system of room allocation that generates maximum inconvenience for students and teaching staff alike. Loss of own teaching space made worse by the havoc of CRB	University
Maths and Stats : Lack of large lecture rooms, small tutorial rooms, blackboard/whiteboard maintenance, stats lab needs refurbishment.	University/College
Physics and Astronomy : Dedicated teaching administrator for the School and replacement of teaching technicians.	College/School
Physics and Astronomy : Renovation of the Observatory. The astronomy intake has increased dramatically in the last 5 years and class sizes are likely to remain at this high level for the foreseeable future.	University/College

Psychology : Lack of large lecture theatre (capable of taking up to 600	University	
students) leads to lecture being repeated.		

## Key themes, actions or issues identified in Annual Monitoring

Please highlight the key themes, actions or issues identified through Annual Monitoring, whether the theme represents good practice or an opportunity to develop, who identified the issues and any correlations with the findings of internal and external feedback mechanisms. (*Please identify the School(s) in brackets*)

Key Themes, actions or issues	Good Practice or identified for attention	Identified by: (Staff, Students, External Examiners)	For the attention of: (University, College, School)
MyCampus	Poor interface, difficulty of extracting data, generating general timetables.	Staff and students	University
New Advising System	Coupled with MyCampus.	Staff – cannot deliver academic advice while overloaded by MyCampus	University
More teaching admin support needed.	Would also help mitigate the effects of MyCampus.	Staff	College/Schools
Lecture room allocation and central room bookings	Schools want space of the correct size locally to foster identity.	Staff and students	University
Large lecture theatres, small tutorial rooms and lecture theatre maintenance	Need diverse teaching space provision	Staff	University

A list of good practice is appended at the end of this CAMS.

# External

## **Collaborative Activity (where applicable)**

Please comment on any additional arrangements that Schools may have put in place to monitor and support the learning experience of students on established UK or international collaborative programmes such as joint/double (dual) award arrangements or those involving students who have articulated onto a programme or course offered by the College from a partner institution. (*This may require discussion with SQOs*) (suggested word limit of c.250 words)

The establishment of University of Glasgow Singapore, UGS, and the subsequent coordination of programmes and processes to ensure maintenance of academic standards have represented a major undertaking for the School of Engineering. Staff across the School have been involved in both activities. The drain on staff time for those who courses are also being offered in Singapore has been disruptive.

The new course in Singapore delivered broadly comparable results to those in Glasgow. The relative weakness in mathematics of UGS students was addressed through the provision of additional bridging programmes in maths and physics. The least satisfactory pass rate was in Instrumentation and Data Systems 3 (IDS3), which also mirrored the situation in Glasgow. Problems identified with this course include lack of exam and example solutions, which HoD of Mechanical Engineering has taken up with relevant staff.

## Reviews by Professional, Statutory and Regulatory Bodies (where applicable)

Please list the Subjects that have undergone professional accreditation/reaccreditation this year, including aspects of good practice and any areas of concern identified in accreditation reports submitted to the College Learning and Teaching Committee and how they will be/have been disseminated/addressed. (*This may require discussion with SQOs*) (suggested word limit of c.250 words)

The IET scrutinised the degrees offered by Electronics and Electrical Engineering in April this year and these programmes were accredited.

# QA/QE Processes

#### **Annual Monitoring**

Please reflect on the quality of engagement with the Annual Monitoring process by Schools and proposed action, where relevant, to address any concerns (suggested word limit of c.250 words)

An AMR is completed for all courses in **Physics and Astronomy**. The School Quality Officer does not just collect the ACM forms but meets each head of year to discuss the AMR for their respective class. Issues raised in the AMRs are then discussed to formulate relevant plans to bring to the attention of the School, College or University. The heads of year view positively this approach to the Annual Monitoring process.

#### Engineering

Since the introduction of the new ACM process in session 2010-11 there has been very active staff engagement as a result of streamlining of the administrative overhead and increased focus on the core area of course review through ACM meetings at Discipline level. Staff have reacted positively to the requirement to contribute to this process through attendance at the meetings and providing responses to course related issues raised.

#### GES

An annual review of course performance is held following the May exam diet and exam board meetings. Regular informal discussions are held with staff about results, feedback, course structure and content.

Observations on the effectiveness of the University's Annual Monitoring process and how it might be improved (including process, structure and content of AMRs, role of SQOs) (please refer to staff comments in AMRs and SAMS) (suggested word limit of c.250 words)

**Chemistry**: The form is still considered to be overly long and (again) it is noted by many that automated entry of course statistics into the AMRs would be an incredible time-saver (recurring issue).

**Physics and Astronomy :** Most class heads would prefer a shorter form though they do acknowledge that it has already been shortened from the previous versions. The AMR forms should be made available at the time of the examiners meetings in June. This better facilitates completing the AMRs since the majority of the topics can be better discussed while issues are fresh in the mind. Most classheads would like to see some response to or acknowledgement of the feedback provided through Annual Monitoring, since the outcomes from feedback acquired through AMRs is not apparent to them.

**Maths and Stats :** In general, the staff engaged more fully with the Annual Monitoring process this year. The report forms were shorter and more clearly structured, which helped considerably.

**GES** : It will be good to keep the AMR form consistent each year in the future.

## Periodic Subject Review (where applicable)

Please evaluate the effectiveness of arrangements for consulting with students during the preparation of Self Evaluation Reports (SERs) for Subjects undergoing Periodic Subject Review (formerly known as DPTLA) (*This will require discussion with SQOs*) (suggested word limit of *c.250 words*)

The School of Physics and Astronomy underwent a PSR in February 2012. The main impression gained by the panel was that the School had managed to create a collegiate ethos. Students felt that they were part of the school both as a result of efficient organisation and through the enthusiasm and approachability of staff.

## Quality Officers Forum

Please comment on the effectiveness of the University's Quality Officers Forum. (suggested word limit of c.250 words)

I believe that the Quality Officers Forum has had some success in simplifying the forms and streamlining the annual monitoring process. However, this requires more work.

# Thank you very much for providing this information