The aim of Annual Monitoring is to maintain quality and improve provision through identifying action that can be taken to improve future student experience.

This form should be used to capture a focused and concise reflective summary of annual monitoring activity at school and subject level. Bullet list format is encouraged.

College	Science and Engineering which consists of:
	CHEM: Chemistry (all PGT info was provided in UG report);
	CompSci: Computing Science (report received);
	ENG: Engineering (report received);
	GES: Geographical and Earth Sciences;
	M&S: Mathematics and Statistics (report received);
	P&A: Physics and Astronomy (report received);
	Psych: Psychology (report received).
	Comments in this form were provided by the School Quality Officers (via their respective PGT convenors) in the Schools listed above except where the comment has "(MMC)" after it, where it was written by the COSE QO, Dr Morag M. Casey. Reports were received from 6 of the 7 Schools in COSE as noted above.

Reflection

What is working well?
CompSci
• Recruitment, especially of international students.
• Quality of students is increasing, as shown by the increased number of Distinctions and Merits awarded.
ENG
• Feedback from MSc/PGT students is generally good across the School of Engineering, with students mostly commenting that they are enjoying the courses.
• Generally good engagement of PGT students on the course and good interaction with staff.
M&S
• Everything is working well. Students are very positive about the MSc
P&A
• Most programmes run smoothly and students enjoy the quality of teaching. Informal feedback highlights support from staff.
Psych
• Specialised streams in the Msc Psychological Science course (Psychology of Cognitive Neuroscience and Clinical Psychology) allows students to tailor their options and dissertation topic towards their career aspirations.
• Two group mini projects are included in the Msc conversion Research Methods course, which provided students with experience of independent project work in preparation for the dissertation.
• (MScRMPS) Students appreciated the hands-on tutorial sessions, and the overall good preparation for PhD the programme offers. In particular, students appreciated the research projects, professional skills and applied statistics teaching.
• Some coursework requirements were not described clearly enough due to departure of staff in December. We have updated the description for the following year.
• The high level of academic achievement (MSc with distinction) reflects the quality of the student intake.

What needs work?	What action is being taken forward?
CompSci	CompSci
• PTES results were low. The main cause was a	• We will increase the number of staff-student

feeling of powerlessness by students and a problem with one of the lecturers (as revealed by the open comments). Students were also unhappy with the feedback received on assessed exercises.	meetings from 2 a year to 5, 2 per semester and one during the summer. This will give us more opportunities to highlight actions that we have taken in response to student input. • We will pay teaching assistants to mark assessed exercises to ensure better quality feedback in a timely manner. • The lecturer in question is explaining assessment processes much more clearly and the course is being very well received by the current (2017-18) cohort
ENG • It has been noted by staff, and also students working in group activity, that the standard of International students English is variable. Mostly it is good, but in some cases students are relying on peers to support them in group report writing, and that it also limits engagement. • Students have commented that they are relatively unaware of plagiarism and academic dishonesty, along with its implications. • Significant number of classes have a large number of A1-A3 grades, but with a long "tail" of lower grades : concern that more able students not being challenged enough. • In Level 4 & 5 classes shared with UG courses, there is often a distinct difference in marks between MEng and MSc students. Most commonly, the MEng students grades can be in the A-B range and the MSc students are in the C-D range.	**ENG** • There is a reliance on the English Language Tests at entry which cannot be avoided. Students can find support courses such as "English as a Foreign Language", within the University and will be encouraged to attend. • Courses on report writing, plagiarism and dissertations are being considered as support activities early in the degree course to improve student support and awareness. • Continue increased use of open ended assessments to provide more challenge and to better differentiate between students of all abilities. Ensure undertaken in a manner that supports "less able" students. • Prerequisite material is assumed for students on the UG program from courses in earlier years. Students joining Glasgow for PGT courses may not necessarily have some of this prerequisite material or may have been taught the subject material in a different manner previously. Ensure support is provided to ensure relevant material is available.
M&S • Timetabling is a concern.	**M&S** • We tried to coordinate with other schools to work out a better timetable.
P&A • School research staff should submit more MSc project proposals in a timely manner to give students more time to choose among more projects.	**P&A** • Reminder emails sent.

Psych
• Msc Psych Science Conversion:
  ◦ Balance of examination assessments in December and April /May diets. Msc conversion students have the majority of core courses examined in April/May, with one in December.
	Psych
	• Msc Psych Science Conversion
	  ◦ Timetables and examinations have been adjusted to allow assessment of 2 core courses in December 2017.

- ◦ External examiners commented that the format of the exam (1 hour unseen) for core and optional courses was not appropriate for Masters level. Externals requested earlier communication regards timing of paper work and information in exam board reports.

- ◦ Students fed back that Moodle was difficult to navigate across many courses, and requested more teaching of statistical concepts to support practical activities in the RM course.

- **MScRMPS**
  - ◦ Qualitative Methods needs to meet ESRC requirements (20 credits); training in R coding to get students ready for the Statistics course.

- ◦ Assessment and feedback methods are being reviewed at all levels within the School. Some optional courses have introduced a coursework component in addition to an unseen exam. External examiners will be sent a timeline for key stages in the examination process. Exam board reports in 2017-18 will include more detailed breakdown of performance on the course.

- ◦ An induction session for Moodle, restructuring of moodle and details on weekly activities. Research Methods curriculum has been reviewed to teach statistics with R.

- **MScRMPS**
  - ◦ We are planning to move some courses/coursework from the first to the second term (Statistics) and to reorganize some courses (Designing a Research Project, Professional Skills) to better accommodate a new Qualitative Methods (20 credits) to meet ESRC requirements.

Good Practice

What practices are innovative?	Which of these would you recommend for wider dissemination?
CompSci • We continue to test student's abilities at the start of the year, to cope with the variability of their undergraduate education. It is also easy to change programs, so that students can be directed towards a more appropriate program if necessary.	YES TO ALL
ENG • Using lecture videos and in particular lecture summary videos – key concepts or information can be highlighted in the summary as a quick reminder for students. • Staff-student discussions during presentation of worked examples to get students thinking about the problem rather than just presenting the worked answer.	YES TO ALL
M&S • Since the Mathematics related MSc's have expanded from 3 or 4 to more than 10, the Head of Year is now coordinating students' course choices in order that students with a range of backgrounds select courses that are suitable for them. New developments in the Mathematics MSc will be reviewed in LTC this year.	YES TO ALL
P&A • PGT students published the first issue of "Kelvin News", a short collection of articles on Physics & Astronomy written by them • A study was carried out on Transitions to PGT study and suggestions on how to support UofG students have been published http://jpaap.napier.ac.uk/index.php/JPAAP/article/view/280	YES TO ALL
Psych • Introduction of blended and a flipped approach in the Msc conversion Research Methods course, and use of R software in statistics component of the course. • As part of their MSc options (Formal Models) five students had the opportunity to	YES TO ALL

attend an Erasmus IP blended mobility workshop in Graz, Austria.	
• Statistics and Research Design, Formal Models (Erasmus+) are innovative courses using R coding	

Closing Loops

What progress has been made on actions identified in last annual monitoring cycle?

Action:	Progress:
CompSci • For many years our specialist programs have not had enough specialist content, which has caused some unhappiness among students.	CompSci • We have added 4 new taught modules so that our main specialist programs, Data Science and Information Security, have a majority of specialist content in their taught modules.
ENG • A number of classes have a low spread of marks, though the average mark is acceptable.	ENG • Progress has been made by introducing more "open-ended" questions in exams and coursework assessments. Still some courses with narrow spread and/or high averages so action is ongoing.
• Submission dates for assignments/courseworks need consideration to avoid too many deadlines occurring at similar times in the semester.	• Some improvement through staff liaison and flexibility with deadlines, and coordination of deadlines through the Teaching Office. Still problems with some parts of the semester – New Assessment + Feedback Calendar (implemented in 2017-18) may help to manage the problem.
• Consideration of smaller group tutorials to assist with feedback and student support.	• Ongoing difficulty due to the availability of GTA's to support tutorials and with pressure on timetabling.
• Some optional level 5 classes have low numbers that mean course may not be considered viable in future.	• Not as many level 5 options with low numbers due to improved communication of the options available. Some classes still have low numbers and possible "merging" of classes is being considered in some teaching disciplines as a result.
• A compulsory course in "Report and Technical Writing" was provided for MSc students. Students who attended found this useful, however engagement was low.	• Better attendance in 2016-17 at this course, and students who attended found it useful. Considering a wider range of similar courses in future to included "dissertations" and "Plagiarism" as highlighted earlier.
M&S • (nothing reported)	M&S • N/A
P&A • Clear message to School staff sent via email regarding MSc project proposals.	P&A • Ongoing.
Psych • (MscRMPS): Some coursework requirements were not described clearly enough. We have updated the description in the PID. We are planning to move some courses/coursework	Psych • Changes were approved by external examiner, and changes were made in PIPS

from the first to the second term and to replace Designing a Research Project by The Research Cycle	

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

College

CompSci
- (nothing reported)

ENG
- (nothing reported)

M&S
- With the large increase in enrolments for the Stats related MSc, Classroom size, Lab size and coordinating timetable with Computer Science have become problematic. For example, the data analytics program shares 5 courses with computer science courses and there are large numbers of MSc students taking varied combinations of courses. In 2016-2017 we tried to resolve most of these clashes by completely revamping our timetable. However, late in the day, before the start of the academic year we realized that Computing Science had altered their own timetable. Their teaching pattern is very different (3-4 hours on single days as opposed to regular weekly slots) causing further major clashes. We responded by altering the timing of our courses. Computing Science has helped by allowing students flexibility in the choice of labs/sections. Hopefully things have settled down for next year.
- Also, given current staff numbers, we are constrained in our ability to offer the variety of summer projects in Statistics we would wish to offer to over 80 students.
- The School has almost no control on who registers to do the MSc. Some students go to the International School before starting the MSc but many of them do not have the mathematical background that we are looking for. More communication between the School and the College/International School with regard to new entrants would be welcome.

P&A
- (nothing reported)

Psych
- MscRMPS: there is a demand for attractive hands-on courses that also meet ESRC requirements (e.g., Qualitative Methods)

University

CompSci
- (nothing reported)

ENG
- Environment of some teaching rooms is not always the quality it should be – notably poor "air quality" in some rooms, often being too warm. Common to find microphones or other equipment not working or unavailable (though problems are usually addressed promptly **when reported**).

M&S
- With large increase in our enrolment classroom size, lab size and coordinating timetable with Computer Science. We are also constrained by staff members for offering summer projects for over 80 students. [NOTE FROM MMC: I asked for clarification about these statements but it has not been provided.]

P&A
- (nothing reported)

Psych
- Increased student numbers are not matched by admin support and teaching provisions/staff.
- Space in dedicated teaching space would need developed to keep up with the innovative practices in teaching that had been introduced (e.g., flipped teaching). This would include IT and practical facilities to ensure active learning spaces. Additional financial support investing in this development from central funds should be provided.

Hot Topics

Do you have any comments on the following topics?

1. Did you find the feedback calendars, which were introduced in 2016-17, helpful? Have they prompted any action, particularly with regards to the timeliness of feedback?

CompSci
- We have not used them yet. We have our own on-line coursework assessment system and this provides a clear timetable to students of when assessments are due out, due in, and when feedback can be expected. We ensured that members of academic staff were early in inputting all dates to the system this year, and this had a positive effect in teaching admin ratings. With the increase in numbers we putting further mechanisms in place to ensure the timeliness and quality of assessment feedback. Hopefully our commitment of more resources to marking assessed exercises this year will ameliorate any issues with the significantly increased cohort.

ENG
- Feedback calendar only introduced in School of Engineering for the 2017-18 session so no comments to provide on its impact as yet.

M&S
- Yes.

P&A
- Helpful, but the heavy marking load in some courses or at some specific times in the year can still render feedback longer to return

Psych
- The Psychological Science (conversion) programme introduced the feedback calendar in previous years and students report finding this useful in their time management.

2. How do you work with Graduate Teaching Assistants in assessment, assessment moderation and feedback moderation?

CompSci
- (nothing reported)

ENG
- GTAs mostly used for tutorial provision and support – not commonly used for marking assessments or feedback on assessments within Engineering. Where they are used in marking, GTAs mark assessments alongside academics and any grades awarded and feedback provided is monitored/ratified by Academic staff. Other aspects regarding issues with GTAs are discussed above.

M&S
- (nothing reported)

P&A
- N/A

Psych
- GTAS worked with MSc conversion students in supporting them in experimental design software, and statistics workshops. Feedback from students on the support GTAS provide is positive. GTAS are not currently involved in assessing or moderating students' work.

3. Are there any other topics you wish to comment on?

CompSci
- No.

ENG
- (nothing reported)

M&S
- (nothing reported)

P&A
- I find that more and more students require mental health support, but it looks like the University is struggling to adapt to the demand. Faster response and more ongoing support should be a priority.

Psych
- (nothing reported)