**UNIVERSITY OF GLASGOW**

## Academic Standards Committee - Friday 24 February 2006

## Responses to the Recommendations Arising from the Review of Electronics and Electrical Engineering held on 19 April 2005

**Mrs Marjory Wright, Clerk to the Review Panel**

**February 2006**

## Conclusions and Recommendations

*Conclusions*

The Review Panel commended the Department highly on the overall quality of its provision. Members of staff were found to be enthusiastic, committed and responsive to change. Probationary Lecturers were provided with the appropriate support to allow them to establish their teaching and research and Graduate Teaching Assistants found personal value in the teaching contribution that they made to the Department.

Students spoke warmly of the Department. There was an innovative mentorship scheme in place to support first year students and the Panel was impressed with the level of integration of international students into the Department.

The Department has undergone effective change under the current Head of Department. The Review Panel was concerned by the amount of work undertaken by the Head of Department and **recommends** that the Dean review the workload attached to the Headship bearing in mind the fixed term nature of the role and the need to be research active in such a high quality Department.

The Review Panel wishes to draw to the attention of the Code of Assessment Working Group that the Department of Electronics and Electrical Engineering had found serious problems with the non linear conversion scale when applying the Code of Assessment.

The recent Departmental Review of Teaching, Learning and Assessment of the Department of Music (4 March 2005) regretted the lack of opportunity to meet with BEng students undertaking the joint degree in Electronics with Music. The Review Panel therefore requests that the sections of this report that refer to the joint degree with Music be drawn to the attention of the Convener and Panel members of the Department of Music Review, and to the Head of Department of Music (C5.6, C5.7).

## Recommendations to the Department/Faculty

*Recommendation 1:*

The Panel recommends that care be taken to ensure that examination dates and teaching timetables for joint degrees are co-ordinated. *Paragraph C.3.4)*

**Action:** The Head of Department

*Response:*

*The Department exercises great care with respect to timetabling of Joint courses with other Departments in other Faculties. Timetabling is carried out by the Departmental Administrator in full consultation with the corresponding person(s) in the Departments of Music and Computing Science. A specific problem exists with respect to January examinations in the Degree of Electronics with Software Engineering carried out jointly with the Department of Computing Science. The Engineering Faculty has standardised its Semesterisation and Modularisation structure by holding examinations for Modules taught in Semester 1 in January. The Department of Computing Science does not do this for Honours Level subjects (Third and Fourth Year) and is teaching during the last two weeks of Semester 1 when examinations are being held in the Engineering Faculty. We have made the Department of Computing Science fully aware of this inconsistency. This problem can only be resolved by a common Institutional policy towards Modularisation within Semesters which at present does not exist (see also Recommendation 15).*

*Recommendation 2:*

The Panel recommends that the Department review the Engineering Career Skills 3 course with a view to including more professional issues. *(Paragraph C.4.4)*

**Action:** The Head of Department

*Response:*

*The course Engineering Career Skills 3 exists principally to meet the requirements of accreditation of the Department's Degrees by the Institution of Electrical Engineers, which is the appropriate professional body. The Department is to be accredited by IEE in April 2006 following the usual 5-year accreditation cycle. We shall consider, in conjunction with the forthcoming IEE accreditation process, how this course might be presented in a more enlightening manner for the benefit of the students.*

*It is not clear that more professional issues can be crammed into this 10 credit course. It already contains health and safety, risk assessment, intellectual property, information retrieval skills and instruction on many forms of writing including a technical essay. Students already complain about the workload. The course was set up with two aims: to raise the standard of writing in reports and to address professional issues. External examiners and staff had noticed a deterioration in the standard of project reports. Since the introduction of the course external examiners have commented on the significant improvement in written skills.*

*Recommendation 3:*

The Panel recommends that the Department ensure that its existing protocol in relation to project placements abroad is documented and observed in practice. *(Paragraph C.5.5)*

**Action:** The Head of Department

*Response:*

*There are already existing written guidelines given to students which contain extensive guidance on the execution of projects carried out abroad. It is usually impractical for academic supervisors to visit students on placements abroad. Supervision of the project on a day-to-day basis is completely entrusted to the Industrial Supervisor. There exist lines of communication formed by two progress reports which are sent back by the*

*student to the Department and which are then seen by the academic supervisors. There is no formal feedback expected from Supervisors to the students on placement but if there are perceived problems or lack of clarity in the student's progress report the Supervisors will contact the student. The Department is presently examining its protocols to see if these can be improved.*

*Recommendation 4:*

The Panel recommends discussions with the Department of Music to explore what resources would be required to enable an expansion of the intake to the BEng Electronics with Music to be considered and whether this could be justified on an academic and financial basis. *(Paragraph C.5.6)*

**Action:** The Head of Department

*Response:*

*Discussions with the Music Department have taken place on a fairly frequent basis since the B.Eng. Electronics with Music course was instigated, with a view to the possibilities for expansion of the course. As stated in the SER, and recognised in the Review, the principal limitation in this respect is the available staff resource in the Department of Music, coupled with limitations in space available there for the conduct of individual experimental projects in electro-acoustic composition and sound synthesis. The resolution of the resource question depends primarily on the outcome of ongoing negotiations to rehouse or expand the Department of Music. From the point of view of the Department of Electronics and Electrical Engineering, any expansion in student numbers must not be attained at the cost of student quality, which is at present recognised to be good.*

*Recommendation 5:*

The Panel recommends that the Department continue to explore the reasons for the high drop-out rate in years 1 and 2 of the undergraduate programmes and ascertain whether there is any correlation with academic performance to date. *(Paragraph C.5.8)*

**Action:** The Head of Department

*Response:*

*We have studied the dropout rate for well over a decade and attempted to correlate it with any data available, with little success. There appears to be no significant correlation between entrance qualifications and dropout rate with one exception: students who did not pass a relevant course (maths, physics or the like) in their final year at school are almost certain to drop out. This affects a small but detectable number of students who stayed on at school for S6; they may have done better if they had left after S5. There is a high correlation between attendance and dropout: students whose attendance is poor are likely to drop out. While this is not surprising, it has proved difficult to convince students that it applies to them. After a week or two it is typically clear which students have poor attendance and who are therefore unlikely to complete the course. We have attempted to contact the absentees and encourage them to return but this is generally fruitless. Other departments across the university are afflicted by the same problem and there is already a project funded by the Sutton Trust to investigate it.*

*Recommendation 6:*

The Panel recommends that the Department consider providing Postgraduate students with more opportunities for practical work in the optical courses. *(Paragraph C.6.2)*

**Action:** The Head of Department

*Response:*

*The particular M.Sc. course to which this refers, Optical and Data Transmission, is already well supplied with a practical laboratory class associated with each 2-hour lecture period, and has the largest number of academic staff (4) associated with teaching it of any of the M.Sc. lectures, due to the intensive laboratory provision. It is true that some of the students taking this module have no previous experimental background in elementary optics and some do have difficulty with even very basic concepts in optics. This is a 1-year postgraduate course and it is not practical to undertake any extensive basic laboratory training further than that which is already supplied by the existing laboratory classes for the course.*

*Recommendation 7:*

The Panel recommends that the Department's course literature for applicants and its website be updated as a matter of urgency. *(Paragraph C.6.6)*

**Action:** The Head of Department

*Response:*

*This has been done.*

*Recommendation 8:*

The Panel recommends that the Department develop a robust means of communicating to students the action taken as a result of analysing the feedback that they provide. *(Paragraph E.3)*

**Action:** The Head of Department

*Response:*

*The Departmental Staff-Student Committee has a robust feedback path associated with its deliberations. Each meeting reports back from academic staff to students on what has been done as a consequence of points raised at the previous meetings. One reason for expressing reservations about the questionnaires used at the end of each course is that they do not provide the kind of data on which instantaneous action and feedback would be appropriate (e.g. 25% of students think that Lecturer X goes too fast, 35% think Lecturer X goes too slow, 40% think it is about right, etc.). It would be possible to simply publish the statistical results on noticeboards or on the web, but they would not necessarily be any more useful for that. Probably a full-scale revision of the questionnaire itself is required. We are presently considering this.*

*Recommendation 9:*

The Panel recommends that the Department's Industrial Liaison Committee be reinstated with a more strategic remit that would be more interesting to industrialists. *(Paragraph E.4)*

**Action:** The Head of Department

*Response:*

> *The Industrial Liaison Committee has been reconstituted with a new membership, and will hold its first meeting in January 2006.*

*Recommendation 10:*

The Panel recommends that the Department consider the introduction of a mechanism to provide Probationary Lecturers with an opportunity to feed back their experience to staff at the end of their third year of probation. *(Paragraph E.5)*

**Action:** The Head of Department

*Response:*

> *This feedback already occurs to the present Head of Department who takes a very active interest in frequently discussing the experiences of Probationary Lecturers as they progress through the programme. It would indeed be desirable for this experience to be more widely appreciated amongst the academic staff. A short report to be tabled at a Staff Meeting might be an appropriate way to do this.*

*Recommendation11:*

The Panel recommends that the Department undertake a trial period of extended student access to computing facilities and suggests that the Department permits access until 6.00 pm for a period of 3 weeks and until 8.00 pm for a further period of 3 weeks and that an evaluation of the uptake by students be undertaken to determine the extent of interest in such provision. *(Paragraph F.6)*

**Action:** The Head of Department

*Response:*

> *The Department is investigating, along with the Department of Civil Engineering who share the Rankine Building, the provision of a computing cluster for undergraduate access out of normal hours, to be placed in the ground floor level of the Rankine Building. In order to address security, safety and supervision concerns this room needs to be isolated from the rest of the Rankine Building by a security door with controlled access. The cost and implementation of this access system are presently being assessed. The Department will not be happy with uncontrolled and potentially unlimited undergraduate access to the whole of the Rankine Building out of normal working hours, and therefore we are not implementing the suggestion made by the Review Panel at this stage unless some security isolation were to be installed.*

*Recommendation 12:*

The Panel recommends that the Department give consideration to providing supervised laboratories for Postgraduate taught students and the implicit need to give postgraduate taught students the same training in laboratory management as research students, both from a safety and education point of view. *(Paragraph F.7)*

**Action:** The Head of Department

*Response:*

*The Department does not understand this recommendation. All the Postgraduate taught courses (M.Sc.) have laboratory classes of some kind associated with them, where appropriate with a high degree of physical exposure to authentic equipment and instrumentation techniques. These laboratory classes are supervised by academic staff and at least one Demonstrator, sometimes two. There is undoubtedly scope for further increase in these laboratory classes where resources permit. This matter has been under continuing discussion for several of the M.Sc. courses, for example Computer Communications 1 and 2, and suitable enhancement will continue to occur as resources permit. The suggestion that there are no supervised laboratory classes associated with M.Sc. courses is wrong. The Department would not accept the proposition that PGT students are equivalent to PGR students in terms of training in laboratory management or that this is an appropriate matter for PGT students in the taught modules of a 1-year taught course. Some aspects of this question do of course occur during the Project phase of the M.Sc. (June-September), when most projects will be laboratory-based. Then it is appropriate to consider such matters as project planning, experimental design, etc., and indeed this is what is done.*

*Recommendation 13:*

The Panel recommends that the Department contact GUIDE for support and advice to help it expand its use of Moodle. *(Paragraph F.9)*

**Action:** The Head of Department

*Response:*

*This has been done.*

*Recommendation 14:*

The Panel **recommends** that the Dean review the workload attached to the Headship of the Department of Electronics and Electrical Engineering bearing in mind the fixed term nature of the role and the need to be research active in such a high quality Department. *(Conclusions, Paragraph 3)*

**Action:** The Dean of the Faculty of Engineering

*Response:*

*The Dean of Engineering has reviewed the workload of the Head of Department of Electronics and Electrical Engineering, and recognises the high levels of load attached to the post. It is a pleasure to have the opportunity to recognise the outstanding role played by Professor Arnold in coping with a high administrative load, combined with a significant teaching contribution and a fully active research profile. As part of the performance and Development Review process there will be active discussions as to how these commitments be managed within the finite financial resource available to the Faculty and the University*

## Recommendations to the University

*Recommendation 15:*

The Panel recommends that the University address the lack of a uniform policy among Faculties in relation to the timing of examinations and teaching, which creates difficulties for Joint Honours programmes. *(Paragraph C.3.4)*

**Action:** The Vice Principal for Teaching and Learning

*Response:*

*The lack of uniform policy among Faculties in relation to the timing of the examinations and teaching, is a problem highlighted by many departments. The SMG has recently agreed to establishing a working group to review academic structures which will embrace the issue outlined in this recommendation. The group is expected to report to SMG by early summer 2006.*

*Recommendation 16:*

The Panel **recommends** expansion of the existing collaborative recruitment initiative with the University of Strathclyde, in conjunction with the Science and Engineering Faculties' Recruitment Committee. *(Paragraph C.5.1)*

**Action:** The Deans of the Faculties of Science and Engineering

*Response: Dean, Faculty of Engineering*

*The Faculty recognises the importance of collaborative recruitment initiatives with the University of Strathclyde, and contributes towards the costs of a widening participation and recruitment officer in collaboration with the Science Faculties.   The Faculty will continue to exploit all opportunities to widen the social economic, racial groups from which it attracts students within the context of its aspirations towards gender balance.*

*Recommendation 17:*

In relation to the BEng Electronics with Music degree, the Panel recommends that a meeting take place between the Convener of the Review Panel and the Heads of both Departments to consider ways of enhancing student awareness of communication channels and to help students to feel part of both departments. *(Paragraph C.5.7)*

**Action:** The Convener of the Review Panel

*Response:*

*A meeting of the Convener and the Heads of the Departments of Music and Electronics and Electrical Engineering took place to the satisfaction of all three.*

*Recommendation 18:*

The Panel recommends that the relevant committees in the Faculties of Science and Engineering explore the reasons for the high drop-out rate in years 1 and 2 of undergraduate programmes. *(Paragraph C.5.8)*

**Action:** The Deans of the Faculties of Science and Engineering

*Response: Dean, Faculty of Engineering*

*The Faculty is very conscious of the importance of student retention, and is contributing to University initiatives to identify the extent and causes of the problem.*

*Recommendation 19:*

The Panel recommends that the University consider how it communicates its statistics to the Press. *(Paragraph C.5.9)*

**Action:** The Director of Planning

*Response:*

*Over the summer of 2005, I led a working group to consider how best the University of Glasgow can present itself in league table. That has led to changes in the way we record data which will advantage our positioning in the league tables, as well as identifying areas of the University's performance (e.g. student retention) which require substantial improvement if we are to improve our positioning in league tables.*

*Recommendation 20:*

The Panel recommends that Central Room Bookings take appropriate steps to ensure that student movement around the campus for lectures is kept to a minimum. *(Paragraph F.5)*

**Action:** The Director of Estates & Buildings

*Response:*

*CRB are aware of the importance of minimising student travel between classes for Engineering Courses. Working closely with the Engineering Departments and using the Programme of Study Data, CRB allowed their booking timetable system more freedom to source space in Session 2005/06 in the room allocation process. Feedback from the Engineering Departments has been very positive to their class allocations in 2005/06."*

*Prepared by: Janet Fleming, Senate Office*

*Last modified on: Wednesday 8 February 2006*