

MASTER'S QUALITY COMMITTEE
(BUSINESS, ENGINEERING & PHYSICAL SCIENCES)

The minutes of the Master's Quality Committee
(Business, Engineering & Physical Sciences)

held on

Tuesday 5 November 2013

Present:

Dr David McPhail, Graduate School Deputy Director & Department of Materials (Chair)
Mr Mohammad Ahmadzadeh, Student Representative for Engineering
Dr Laura Barter, Department of Chemistry
Professor Sergei Chernyshenko, Department of Aeronautics
Professor Lesley Cohen, Department of Physics
Dr John Gibbons, Department of Mathematics
Professor Sue Gibson, Director Graduate School
Professor Debra Humphris, Vice Provost (Education)
Professor Richard Jardine, College Consul for Engineering & the Business School
Professor Bassam Izzuddin, Department of Civil & Environmental Engineering
Ms Nat Kempston, ICU Deputy President (Education)
Dr Pat Leever, Department of Mechanical Engineering
Professor Kang Li, Department of Chemical Engineering
Mr Ruxandra Luca, Student Representative for the Business School
Dr Marco Mongiello, Business School
Dr Darryl Overby, Department of Bioengineering
Professor Richard Thompson, College Consul for Natural Sciences
Ms Lorna Richardson, Academic Registrar
Dr Fariba Sadri, Department of Computing
Dr Nick Voulvoulis, Centre for Environmental Policy

In attendance:

Professor Dan Crisan, Department of Mathematics (for item 6.2)
Professor Omar Matar, Department of Chemical Engineering (for item 6.1)
Professor Jonathan Mestel, Department of Mathematics (for item 5.1)
Professor Jonathan Morrison, Department of Aeronautics (for item 6.4)
Professor David Van Dyke, Department of Mathematics (for item 6.3)
Ms Sophie White, Senior Assistant Registrar (Quality Assurance and Enhancement)
Mrs Clare Scheibner, Assistant Registrar (Quality Assurance and Enhancement), (Secretary)

Apologies:

Dr Simon Archer, College Tutor
Professor Andrew Holmes, Department of Electrical and Electronic Engineering
Professor Howard Johnson, Department of Earth Science & Engineering
Mr Andreas Thomik, GSU President
Professor Denis Wright, Director of Student Support

1. **Welcome and Apologies**
Dr David McPhail welcomed members to the meeting and apologies, as listed above, were noted.
2. **Terms of Reference & Membership** **Paper A**
The Committee agreed the Terms of Reference and membership for the Master's Quality Committee (Business, Engineering & Physical Sciences) and noted the membership of Professor Sue Gibson, Director of the Graduate School and Ms Lorna Richardson, Acting Academic Registrar.
3. **Minutes** **Paper B**
The Committee approved the minutes from the Master's Quality Committee (Business, Engineering & Physical Sciences) held on 11th July 2013.
4. **Matters arising from the Minutes**
Matters arising not appearing elsewhere on the agenda were discussed.
 - 4.1 Further to Minute 3.2 regarding an External Examiner's concern about students having free choice from a large number of different topics in examination questions in the Business School, the Business School reported that during the MSc International Health Management Programme Review meeting it was approved with effect from 2013-4 that the structure of the examinations would include a compulsory question from each section (Management Accounting and Financial Accounting). This would prevent students revising selectively. The Committee was satisfied that the comments had been addressed.
 - 4.2 Further to minute 3.5 regarding the appropriateness of postgraduate students marking student assignments from the MSc in International Health Management, the Business School confirmed that PhD students were only used to mark quantitative material where there was a rigid marking scheme in place. The Committee was satisfied with the response.
 - 4.3 Further to minute 4.1, the Committee noted that the Global MBA had been recommended for Senate approval and that the Regulations would now be amended to accommodate different study patterns.
 - 4.4 Further to Minute 11.1.2 regarding the consistency of pass/merit/distinction requirements between students taking a pure technical discipline and those taking the technical and additional components on the MSc in Environmental Engineering and Sustainable Development. The Committee noted that the issue would be discussed at the first meeting of the 2013-4 Departmental MSc Management Committee and a report would then be submitted to the Committee in January 2014.

Action: Civil and Environmental Engineering
5. **Course Modification**
 - 5.1 **MSc in Pure Mathematics and MSc in Applied Mathematics (Department of Mathematics)** **Paper C**
The Committee considered a proposal from the Department of Mathematics to

make major modifications to the MSc in Pure Mathematics and the MSc in Applied Mathematics. Professor Jonathan Mestel and Dr John Gibbons outlined the proposal and rationale for the proposed changes. The Committee heard that the examined component of both programmes would be reduced from 8 to 7 modules with a corresponding increase in the project component of the programmes.

- 5.1.1** The Committee also heard that the Department wished to introduce an additional start date in August, with the programme then ending the following July. This requirement had been prompted by a drop in the uptake by international students of the current MSci programmes as fees equilibrate between the MSci 4th year and the MSc. In order to address the issue of losing potential students to other institutions or students returning to their home countries at the end of their BSc the August start date would enable BSc students to continue directly onto the MSc programme. It was highlighted by the Committee that students wanting to begin a programme in August may have difficulty in obtaining a visa in time for the start date.
- 5.1.2** The Committee raised a concern regarding the management and supervision of two cohorts and regarding the supervision of students starting a two month project in August. The Department confirmed that the students would be adequately supervised over this period. The Committee also asked if the August cohort would have the best choice of projects and supervisors to the detriment of the October cohort. The Department assured the Committee that this would not be the case.
- 5.1.3** The Committee requested that the Department ensured supervisors would be available to students over the summer period and that possible visa issues, accommodation and general support services were all taken into consideration in order to support students during August and September.
- 5.1.4** The Committee approved the requested programme modifications and further agreed to recommend the new additional start date, as a pilot scheme for a period of two years for Senate approval with effect from August 2014.
- 5.1.5** The Committee requested that the Department report the progress of the pilot scheme, specifically in the areas of supervision, student visa and accommodation, to the Committee in October/November 2014.

Action: Department of Mathematics

- 5.2** **MRes in Chemical Biology of Health and Disease (Department of Chemistry)** **Paper D**
The Committee considered a proposal from the Department of Chemistry to change the name of the MRes in Chemical Biology of Health and Disease to 'MRes in Chemical Biology: Multi-Disciplinary Physical Scientists for Next-Generation Biological, Biomedical and Pharmaceutical Research and Development' to reflect the translational and entrepreneurship angle that the programme had developed.

- 5.2.1** The Committee approved the programme name change with effect from October 2014 and agreed to recommend it for Senate approval.

Paper E

- 5.3** **MSc in Computing (Specialism) (Department of Computing)**
The Committee considered a proposal from the Department of Computing to add a new specialism, Secure Software Systems, to the MSc in Computing (Specialism)

suite of programmes. The Committee heard that there was significant demand for graduates in this area from both industry and government.

5.3.1 Dr Sadri confirmed that the Department was not looking to increase their current number of MSc students. Due to this the currently suspended MSc in Computing specialisms would continue to be suspended for a further year (see paper J).

5.3.2 The Committee approved the new specialism, MSc in Computing (Secure Software Systems) with effect from October 2014 and agreed to recommend it for Senate approval.

6. New Course Proposals

6.1 MRes in Fluid Dynamics Across Scales (Department of Aeronautics)

Paper F

The Committee considered a cross Faculty proposal for a new MRes in Fluid Dynamics Across Scales from October 2014. The lead department for the programme would be the Department of Aeronautics.

6.1.1 Professor Omar Matar presented the proposal for the new MRes programme which would form part of a 1 + 3 programme in a proposed new Centre for Doctoral Training (CDT). The Committee heard that the Department of Aeronautics with Professor Christos Vassilicos, Director of the proposed CDT and Professor Demetrios Papageorgiou of the Department of Mathematics, Director of Teaching for the CDT, would administer the MRes. The Committee noted that the programme would be offered on a full time only basis and students would apply to the CDT 1 + 3 programme. Students who wished to complete their studies after the 1 year MRes would be able to do so.

6.1.2 The Committee also heard that the programme would involve seven Imperial College departments which were: Aeronautics (lead), Bioengineering, Chemical Engineering, Civil and Environmental Engineering, Earth Science and Engineering, Mathematics, and Mechanical Engineering. The Committee noted that the programme would not go ahead if the CDT funding bid was unsuccessful.

6.1.3 Following general discussion by the Committee, Professor Omar confirmed that although the proposed programme would have involvement by 7 departments across the College, all MRes students would be registered with the Department of Aeronautics but would also be co-supervised by staff from at least two of the departments involved.

6.1.4 The Committee also heard that the Faculty Teaching Committee would ensure the quality assurance of the programme across the departments and that central procedures would be used for areas such as the moderation of marks.

6.1.5 The Committee raised a concern about the volume of information students would be given in the early stages of the programme. Professor Matar responded that it would not be a significant issue for students and that feedback mechanisms would be used to monitor this carefully.

6.1.6 The Committee approved the MRes in Fluid Dynamics Across Scales, providing the EPSRC bid was successful, with effect from October 2014 and agreed to recommend

it for Senate approval.

Post meeting note

It was confirmed that the Engineering and Physical Sciences Research Council (EPSRC) funding bid had been successful. Senate approved the programme at their December 2013 meeting.

6.2 MRes in Mathematics of Planet Earth with the University of Reading

Paper G

The Committee considered a proposal from the Department of Mathematics for a new joint MRes in Mathematics of Planet Earth with the University of Reading with effect from September 2014.

6.2.1 Professor Dan Crisan presented the proposal for the new joint MRes programme which would form part of a 1 + 3 programme in a proposed new Centre for Doctoral Training (CDT) between the University of Reading and Imperial College. The MRes programme would be offered on a full-time (1 calendar year) and part-time (2 calendar years) basis. Imperial would be the lead institution and Imperial regulations would take precedence. The Committee heard that the programme would not go ahead if the Engineering and Physical Sciences Research Council (EPSRC) funding bid was unsuccessful.

6.2.2 The Committee noted that as the programme would result in a joint award, strategic approval had been received from the Dean of Natural Sciences, the Vice Provost (Education), the Director of Strategic Planning, the Academic Registrar and QAEC had approved the collaboration between both institutions.

6.2.3 The Committee heard that the MRes would deliver training that would span the breadth of the mathematical sciences, including statistics, dynamical systems, scientific computing, data analysis, and stochastic processes, together with application of those mathematical sciences to weather, oceans and climate.

6.2.4 It was proposed that the initial cohort of students for the MRes would be 16 students all of whom would be part of the CDT. The Committee noted that the cohort of students would be based at either Imperial College or the University of Reading and e-learning technology would be used to provide teaching in parallel across the institutions. The Committee raised the concern that in accordance with the procedure for the establishment of collaborative programmes, Master's students must spend 16 weeks at Imperial in order to be awarded an Imperial degree and the proposal did not meet this attendance requirement.

Post meeting note

Following the meeting, Chair's Action was taken to agree that the attendance requirement could be waived as an exceptional case due to the use of e-learning technologies.

6.2.5 The Committee was also concerned that students may favour one university over the other and asked how students would be divided between the institutions.

6.2.6 The department confirmed that students would be made aware at the application stage that they would be allocated one of the two institutions as their main location. The department also confirmed that applications, CVs, personal statements and

preference requests would be taken into account on allocation where possible, but the Course Organisers would aim for an even split of students per campus.

6.2.7 The Committee heard that students would be required to move between campuses and was concerned about the time and cost implications for students. The department confirmed that students would be required to travel every Wednesday; however, lectures would be broadcast across the two institutions limiting the need for students to travel.

6.2.8 The Committee raised a further concern that two of the descriptions used for marking criteria were too similar and further clarification was needed.

65-69 Some original ideas, not developed far enough to reach a useful result; the work still explained well and with good account of and references to existing work. Close to Distinction but not quite there.

60-64 Some good ideas, not developed far enough to reach a useful result; fair explanation of the work and with some account of and references to existing work.

Post Meeting Note

The Department discussed the marking scheme at their Teaching Strategy Committee and drafted an alternative text. The marking scheme was then approved by Chair's Action.

6.2.9 Subject to satisfactory resolution of the above concerns the Committee agreed to recommend the MRes in Mathematics of Planet Earth for Senate approval with effect from September 2014. It was noted that Senate would be asked to approve the programme subject to a Memorandum of Agreement with Reading being drawn up.

Post meeting note

The Department confirmed that the CDT funding bid had been successful and the programme could go ahead subject to Senate approval and the completion of the Memorandum of Agreement. Senate approval was given in December 2013 and the Memorandum of Agreement is currently under consideration by the University of Reading.

6.3 MRes in Statistics

Paper H

The Committee considered a proposal from the Department of Mathematics for a new MRes in Statistics in collaboration with University College London (UCL) from October 2014.

6.3.1 Dr David Van Dyke presented the new programme proposal. The Committee heard that the Department of Mathematics were currently in the process of bidding for a joint Centre for Doctoral Training (CDT) with University College London (UCL). Part of the CDT proposal would be to establish a collaborative MRes in Statistics. The proposed MRes would form part of a 1 + 3 programme, students would be awarded an MRes from Imperial and if successful would go on to a PhD at either Imperial or UCL. If the Engineering and Physical Sciences Research Council (EPSRC) funding bid was unsuccessful the programme would not go ahead.

- 6.3.2** The Committee noted that as the programme would result in a joint award, strategic approval had been received from the Dean of Natural Sciences, the Vice Provost (Education), the Director of Strategic Planning, the Academic Registrar and QAEC had approved the collaboration between both institutions.
- 6.3.3** The Committee heard that although the MRes would be administered and awarded by Imperial, staff from both Imperial and UCL would participate in all aspects of the training. The assessment of UCL modules would however be overseen by Imperial staff and the external examiner.
- 6.3.4** The Committee also heard that the MRes programme had been developed to closely follow the structure of the existing Imperial College MSc in Statistics, but with a mixture of new designed taught courses for CDT students with existing courses from Imperial and UCL. The Department emphasized that the MRes would not be in competition with current MSc in Statistics at either Imperial or UCL, but would serve as a component of the CDT and a milestone for students along the way to their PhD.
- 6.3.5** The Committee had no concerns regarding the proposal and agreed to recommend the programme for Senate approval with effect from Oct 2014 subject to a successful CDT bid.

Post Meeting Note

The Department confirmed that they had not been successful in the EPSRC funding bid. The programme would therefore not be recommended for Senate approval.

- 6.4 MSc in Advanced Aeronautical Engineering (Department of Aeronautics)** **Paper I**
The Committee considered a proposal from the Department of Aeronautics for a new MSc in Advanced Aeronautical Engineering with effect from October 2014.
- 6.4.1** Professor Morrison presented the proposal. The Committee heard that the rationale for the programme was to establish multi-disciplinary training in aircraft technologies for reducing environmental impact and life-cycle costs, to educate a new generation of engineers in the enabling technologies for future generation of aircraft and to enhance the supply of highly skilled engineers to the aviation industry.
- 6.4.2** The Committee also heard that the programme offered 30 modules in total, but only 7 of them would be new. The remaining 23 modules would be shared with existing MEng and MSc programmes. This would permit the department to achieve an increase in the number of MSc students towards the targeted 100 students over the three MSc programmes without requiring a large increase in staff time or departmental resources. The Committee noted that the Department anticipated an intake of over 15 students per year to the programme.
- 6.4.3** The Committee had no concerns regarding the proposal and agreed to recommend the programme for Senate approval with effect from Oct 2014.
- 7. Programme Suspensions**
- 7.1 MSc in Computing (performance modelling), MSc in Computing (Creative Industries) and MSc in Computing for industry (Department of Computing)** **Paper J**
The Committee considered a proposal from the Department of Computing to extend

the programme suspensions of the MSc in Computing (Performance Modelling), MSc in Computing (Creative Industries) and MSc in Computing for Industry by one year (2014-5).

7.2 The Committee noted that the MSc in Computing (Creative Industries) had been suspended for 2013-4 due to a core module being withdrawn with the departure of the lecturer teaching it. The Committee also noted that the MSc in Computing (Performance Modelling) and MSc in Computing for Industry had been suspended for 2013-4 whilst the Department considered consolidating and restructuring their MSc programmes.

7.3 The Committee approved the continued suspension of all three programmes and agreed to recommend the suspensions for Senate approval with effect from October 2014 for one academic year.

8. Programme Reviews

8.1 MSc in Composites (Department of Aeronautics)– Review 2012-3 – [Cohort 2011-12] Paper K

The Committee heard that the review of the MSc in Composites in the Department of Aeronautics would be considered at the next meeting on the 24th January 2014.

9. Follow up from Programme Reviews

9.1 MA/MSc in Innovation Design Engineering - review for 2011-2 Paper L

The Committee considered a response from the Imperial Course Director of the MA/MSc in Innovation Design Engineering, Professor Peter Childs, regarding an action plan to address issues raised during the programme review for 2011-2.

9.2 The Committee noted that the following actions had been taken to address the issues raised.

- A student survey had been undertaken by the Department of Innovation Design Engineering at the Royal College of Art and represented an in-depth survey across the IDE programme. The survey had been useful in providing insights into a wide series of issues.
- The survey responses to Gizmo and Superform modules using SOLE had been positive although SOLE response rates had been low.
- In order to provide a quick insight into student issues the Department would meet with student representatives each term, and also run a student forum each term.

9.3 The Committee agreed that the actions taken and response given was satisfactory and that no further action was required.

10. Good Practice Highlighted by Periodic Reviews Paper M

The Committee considered a report of good practice which was highlighted during Periodic Reviews by External Examiners and reported to Senate during 2012-3. The Committee noted that the good practice document was available on the Registry

webpages at:

<http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/aprovalandreview>

- 11. Appointment of External Examiners for 2013-4** **Paper N**
The Committee considered the appointment of External Examiners for 2013-4.
- Discussion reported in Appendix 1 [not published with the minutes]**
- 12. Conduct of Examination Boards for Master's Level Programmes** **Paper O**
The Committee considered a paper concerning the conduct of examination boards for Master's level programmes.
- 12.1** Several members of the Committee expressed concern about the adoption of a blanket policy of anonymity across the College at Master's level although it was noted anonymity was already working well on some programmes, e.g. Business School. It was agreed that the default position should be that anonymity at final examination boards was adopted but that programmes should have the opportunity to opt out. It was also agreed that the consideration of mitigating circumstances should be separated from examination board meetings.
- 12.2** The issue would now be raised with the MQC (MLSPD) and then a paper from the Graduate School Director would be presented to the next Quality Assurance and Enhancement Committee (QAEC) in full.
- 12.3** It was agreed that the recommendations would be reported to the Quality Assurance and Enhancement Committee on 16th January 2014.
- 13. College entry requirements for Indian students.** **Paper P**
The Committee noted a proposal concerning the entry requirements for Indian students applying for Imperial Master's programmes.
- 13.1** Committee members were invited to register their interest in becoming a member of the Working Party directly with Ms Mel Peter, m.peter@imperial.ac.uk. Professor Cohen requested that Hannah Dickinson, who had produced the paper, be invited to the Working Party, and Dr Barter and Dr Mongiello also expressed their interests. The Committee Secretary would forward the names of interested parties to Ms Peter.
- Action: Clare Scheibner**
- Post Meeting Note**
Names of interested parties were forwarded to Ms Peter.
- 13.2** The Working Party would submit their recommendations to QAEC in Spring 2014 with any recommendations to be effective from October 2015.
- 14. Chair's Report** **Paper Q**
The Committee noted the actions taken by the Chair since the last meeting.
- 15. Special Cases Panel** **Paper R**
The Committee noted the members of the Special Cases Panel for Master's

programmes for 2013-4. The Committee also noted that details of the special cases procedure can be found at the following link: [Special Cases](#)

- 16. Programme Review: Schedule of Reviewers** **Paper S**
 The Committee noted the schedule of reviewers for programme reviews for 2013-4 academic session. Reviewers were requested to contact Mrs Clare Scheibner (c.scheibner@imperial.ac.uk) if they were unable to complete their scheduled review.
- 17. Innovation Design Engineering & Global Innovation Design, Joint Academic Advisory Board Minutes** **Paper T**
 The Committee noted the Minutes from the Joint Academic Advisory Board of the Royal College of Art & Imperial College London.
- 18. MA/MSc in Global Innovation Design Exchange Agreements**
 The Committee noted that both the Pratt and Keio student exchange agreements for the MA/MSc in Global Innovation Design programme had been signed and were now available from the Registry on request.
- 19. Minor Programme Modifications** **Paper U**
 The Committee noted minor programme modifications made during the 2012-3 academic session which had not previously been reported to the Master's Quality Committee (MQC) in July 2013.
- 20. CIBSE Accreditation Granted to MSc in Systems Engineering & Innovation (Department of Civil and Environmental Engineering)** **Paper V**
 The Committee noted that the MSc Systems Engineering and Innovation had been accredited by the Chartered Institute of Building Services Engineers. The period of accreditation was from (intake year) 2011 to 2016 inclusive.
- 21. Geological Society of London Accreditation Granted to MSc in Petroleum Geoscience (Department of Earth Science and Engineering)**
 The Committee noted that the MSc in Petroleum Geoscience had been accredited by the Geological Society of London. The period of accreditation was from August 2013 to August 2019.
- 22. Postgraduate Surveys** **Paper W**
 The Committee noted the details of the Postgraduate Surveys planned for 2013-4. The detail of all College surveys for 2013-4 can be found at the following link: [College Surveys](#)
- 23. QAA – UK Quality Code for Higher Education**
- 23.1 Good Practice Case Studies**
 The Committee noted that, in addition to the examples of good practice identified in the QAA review reports, the QAA had published several case studies supplied by higher education providers. The QAA hoped that these would stimulate discussion among practitioners and students in higher education, and promote enhancement of the learning experience. For more information see www.qaa.ac.uk/ImprovingHigherEducation/GoodPractice/Pages/Good-Practice-Case-Studies-.aspx

23.2 Higher Education Review Themes Announced

The Committee noted that in preparation for the launch of its new review method, Higher Education Review, the QAA had published further information and guidance about the thematic elements for 2013-15. The themes for 2013-15 would be Student Involvement in Quality Assurance and Enhancement, and Student Employability. For more information see

www.qaa.ac.uk/InstitutionReports/types-of-review/higher-education-review/Pages/default.aspx

24. Senate Executive Summary

The Committee noted that the latest executive summaries from Senate were available at: [Senate Executive Summary](#)

25. QAEC Executive Summary

The Committee noted that the latest executive summaries from QAEC are available at: [QAEC Executive Summary](#)

26. Any Other Business

26.1 Renewal of Student Exchange Agreement

Paper Y

The Committee considered the renewal of the Student Exchange Agreement with the University of Tokyo. The Committee agreed to approve the renewal which was effective from 26 July 2013 for a period of five years.

26.2 Dates of next meetings 2013-4

Master's Quality Committee (Business, Engineering & Physical Sciences)

Friday 24th January 2014 at 10am – 1pm, Council Room, 170 Queen's Gate

Friday 21st March 2014 at 10am – 1pm, Ballroom, 58 Prince's Gate

Friday 16th May 2014 at 10am – 1pm, Ballroom, 58 Prince's Gate

Friday 11th July 2014 at 10am -1pm, Ballroom, 58 Prince's Gate

The dates and deadlines for all other College meetings can be found at:

<http://www3.imperial.ac.uk/registry/proceduresandregulations/committees>

27. Reserved Areas of Business

27.1 Special Cases

Paper X

The Committee noted the special cases report compiled by the Registry Admissions Team.

Discussion reported in Appendix 1 [not published with the minutes]