

**SENATE**

**Minutes of Meeting held on 11 December 2013**

**Present:** The Provost, Professor James Stirling (Chair), Professors Autio, Cilliers, Gardner, Gibson, Gooderham, Humphris, Magee, Matar, McGregor, Smith, Thompson, Wright; Associate Professor Miraldo; Drs Archer, Bradley, Buluwela, Fobelets, Gounaris, McCoy; Mr Goldsmith; Ms Kempston (Student Representatives); with Ms Richardson (Acting Academic Registrar), Ms Baker (Senior Assistant Registrar) Mr Calum MacLeod (Management Trainee, Registry) and Ms Ellie Fielding (Management Trainee, Education Office).

**Apologies:** Professors Dallman, Riboli, Richardson, Welton; Dr McPhail.

**1807 Salutation**

The Chair welcomed Professor Sue Gibson, Director of the Graduate School, and Professor Richard Thompson, Chair of the Science Studies Committee.

**1808 Minutes**

The Minutes of the meeting of the Senate held on 30 October 2013 were confirmed.

**1809 Matters Arising**

There were no matters arising in the Minutes not covered elsewhere in the agenda.

**1810 Provost's Business**

Received: A Report from the Provost (**Paper Senate/2013/22**).

(1) The Julia Higgins Awards

Reported: (i) That the Julia Higgins Medal had been awarded to the Department of Chemistry in recognition of its success in being the first Imperial department to be awarded a Gold Athena SWAN award.

(ii) That the Julia Higgins Certificates had been awarded to Mr Rob Bell from the Human Resources Division, Dr Patricia Hunt from the Department of Chemistry, and to the Learning and Development Centre.

(2) Vice President (Health)

Reported: That the President & Rector had appointed Professor Dermot Kelleher as his Vice President (Health), and that Professor Kelleher would remain Dean of the Faculty of Medicine, reporting to the Provost in this capacity.

(3) Head of Department - Medicine

Reported: That Professor Martin Wilkins, Professor of Clinical Pharmacology, Head of Division of Experimental Medicine, had accepted the appointment as the interim Head of the Department of Medicine within the Faculty of Medicine for 12 months from 1 December 2013.

(4) Appointments

Reported: (i) That Mr Michael Lytrides had joined the College on 14 October 2013 as Director of Estates Projects.

(ii) That Mr Mike Russell had joined the College on 11 November 2013 as Director of Digital Systems Transformation in the ICT Division.

(5) Imperial College Academic Health Science Centre

Reported: That Imperial College Academic Health Science Centre had been awarded AHSC status by the Department of Health for a further five years.

**1811 Vice Provost's Business**

Received: A Report from the Vice Provost (Education) (**Paper Senate/2012/23**).

(1) Education and Student Strategy

Reported: (i) That Imperial's Education and Student Strategy had been launched on 31<sup>st</sup> October.

(ii) That alongside the written strategy, a website had been launched with a page for every action point. These pages included the details of those responsible for the action point, in addition to timetables and progress updates.

(2) Imperial Horizons

Reported: (i) That in 2012/13 a total of 1499 students had initially enrolled on Imperial Horizons, the co-curricular programme for undergraduates.

(ii) That the programme had entered its second year in 2013/14 and that the courses remained non-compulsory and free of charge.

(iii) That from 2014/15 the programme would be available to all undergraduates.

(3) National Student Survey 2014-2017

Reported: (i) That a protocol for the timing and content of the annual National Student Survey (NSS) had been agreed and would cover 2014-2017.

(ii) That the protocol outlined that, in addition to the core 23 questions, 4 optional banks of questions would be included.

(iii) That the NSS would start each year on the Monday of the second week of Spring Term as follows:

- 20 January 2014
- 19 January 2015
- 18 January 2016
- 16 January 2017

Further Reported: That in 2014 only, NSS would open on 13 January for students in the School of Medicine.

(4) Higher Education Academy

Reported: That the Provost's Board had agreed that the College should restore its institutional subscription to the Higher Education Academy (HEA) to enable staff to apply for the various education development funds available, to seek accreditation for the College's professional development programme, and to nominate outstanding staff for recognition as National Teaching Fellows and Technician of the Year.

(5) Education Day 2014

Reported: (i) That the next Education Day was due to take place on Thursday 27<sup>th</sup> March 2014.

(ii) That the event would have a similar structure to previous years in which a range of both internal and external speakers would be invited to discuss some of the challenges and opportunities in higher education.

(iii) That one of the key themes for discussion would be the transition from secondary to higher education.

(6) Undergraduate Open Days

Reported: (i) That the dates for Undergraduate Science and Engineering Open Days had been agreed for the next four years, as outlined in section 6 of the Senate's paper.

(ii) That there would be a three-day open event in June each year during which departments could select the two consecutive days they wished to be open for.

(iii) That there would be a trial Autumn Open Day on Saturday 20 September 2014.

**1812 Grade Point Average System (GPA)**

Received: A Note from the Vice Provost (Education) (**Paper Senate/2012/24**).

Reported: (i) That the Higher Education Academy (HEA) was facilitating a national debate on assessment and the potential use of a GPA system at the request of David Willetts MP (Minister of State for Universities and Science).

(ii) That the HEA was co-ordinating a group of interested universities and a GPA pilot scheme for 2013-14.

(iii) That the institutions involved in the pilot would be attempting to frame the English national GPA model should one be created after the pilot.

(iv) That members of the Senate were invited to share their thoughts and comments on GPA. That the purpose of the discussion was not to reach a College position but to start a dialogue which would be part of a College wide discussion which would inform an institutional response to the GPA debate.

Noted: That Imperial College Union was not in favour of GPA.

Discussed: (i) That GPA was a varied system outside the UK and was not universal.

(ii) That the use of GPA might encourage students to make tactical choices when selecting courses to maintain a high score, reducing the perceived scope to choose a wide range of challenging courses.

(iii) That the pilot group of universities did not include Oxford or Cambridge.

(iv) That a 'cliff edge' existed between the 2.2 and 2.1 classifications with little distinction between a high 2.2 and a low 2.1, and that the granularity offered by GPA might reduce

this imbalance.

(v) That a comparable level of granularity was currently achieved with the overall percentage mark.

(vi) That employers often requested module marks to gain a detailed picture of a student's ability.

(vii) That a GPA system might introduce a more competitive atmosphere between students which might have a negative impact on the student experience.

(viii) That the statement in the HEA report that a GPA system would reduce student appeals against marking decisions was questionable.

(ix) That the perceived disadvantages of the current system were not clear.

(x) That exam board decisions were discussed carefully, with a clear understanding of the boundary between the 2.2 and 2.1 classifications.

(xi) That the boundary between the 2.2 and 2.1 classifications was based on more than numerical marks, taking into consideration performance across the range of examined courses/marks.

Concluded: (i) That there was little enthusiasm for the use of a GPA system.

(ii) That the Vice Provost Education would continue to report to the Senate as the HEA pilot progressed.

(iii) That any further questions or comments should be directed to the Vice Provost Education.

### **1813 Research Misconduct Investigation - Student**

Reported: (1) The result of an investigation of an alleged student case of research misconduct in PhD research (**Paper Senate/2013/25**).

Further Reported: (2) That the presiding investigation had made a number of recommendations, as outlined in the Senate's paper.

(3) That the recommendations had been forwarded to the relevant College Officers and Committees for consideration, and may ultimately lead to recommendations to the Senate.

### **1814 National Student Survey 2013**

Received: The results of the National Student Survey 2013 (**Paper Senate/2013/26**).

Reported: (1) That the results of the National Student Survey (NSS), now in its ninth year, had been published in September.

Noted: (2) That each department had created an action plan in response to the survey results.

(3) That these action plans would be monitored through the year and reported to Council in February 2014 along with action plans produced by the Library, ICT, Campus Services and the Careers Service, with a view to ensuring a cross-institution approach.

(4) That the participation rate for the survey was high and that it was important to continue to encourage participation.

(5) That all subjects should aim to be in the top quartile and ultimately at the very top of the sector.

**1815 Review of Postgraduate Taught Provision in the Department of Earth Sciences and Engineering**

Considered and approved: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2013/27**).

Reported: (1) That in its review of the Department of Earth Sciences and Engineering the Quality Assurance and Enhancement Committee had been advised by five assessors who had visited the Department on 13 June 2013.

(2) That the reviewers had found that the four programmes reviewed were considered to be the gold standard in their respective fields and had the highest international reputations. The panel also praised the Department's strong links with industry and the exceptional field trips, particularly Wytch Farm, which was highly praised by the students

(3) That the panel had identified some aspects which were felt to be open to improvement and the Committee had considered their recommendations and the Department's responses.

(4) That the panel had found that the costs of some of the fieldwork trips, particularly to Colorado, were very expensive and that this may be problematic for self-funded students. The Department and student representatives present at the Committee had confirmed that fieldwork costs were made clear to all prospective students on the website and again at the offer stage so that the students knew from the outset what the financial commitment would be.

(5) That the panel had reported that they were extremely impressed with the placement of students within industry but had raised the risk of adequate supervision being provided to students during an industrial placement. The Department had confirmed that several processes were in place to ensure supervision was adequate including the issuing of yearly guidelines for all parties involved and regular Industry Advisory Boards. It had been further reported that industry supervisors were involved in the formulation of projects and often attended the students' final project presentation. It had been confirmed that all students had an Imperial College co-supervisor for the duration of their projects.

(6) That the panel had reported that the trial use of iPads for students on the Petroleum Geophysics programme had been a source of some tension because students on the other Petroleum programmes felt that there was inequality in the level of provision. The Department had recognised that it had been an error to only issue iPads to students on one of the MSc programmes. Following this pilot they had also recognised that iPad functionality was not appropriate for the academic needs of the students, particularly for the fieldwork phase. In light of this the Department had instigated a further pilot of PC tablets for use by PhD students. It was hoped that this new pilot would prove more successful and if this was the case tablets would be introduced for all MSc students from October 2014. The Committee had requested that the Department share the findings of the pilot and their experience with the E-Learning Strategy Committee.

(7) That the Committee had noted that a panel member had commented that students had lamented the lack of free time on Wednesday afternoons to play sport or participate in other aspects of College life. However, the students that attended the Committee had expressed their overall satisfaction with the social opportunities throughout the programme although they did agree that time to participate in arranged sports was limited. The students had further commented that the programme was a very full one and they appreciated that, due to time constraints, scheduling lectures on a Wednesday afternoon was preferable to scheduling them in the evenings.

(8) That the Committee congratulated the Department on an excellent review and was reassured by the responses to the assessors' findings and recommendations.

Agreed: That the Senate was satisfied with the outcome of the review and approved the recommendation of the Quality Assurance and Enhancement Committee that the Department should report to the Master's Quality Committee on developments since the periodic review as part of the next internal review in three years' time.

#### **1816 Periodic Review of Postgraduate Teaching Provision in the Department of Medicine**

Considered and approved: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2013/28**).

Reported: (1) That in its review of the Department of Medicine the Quality Assurance and Enhancement Committee had been advised by five assessors who had visited the Department on 17 May 2013.

(2) That the reviewers had noted the wide variety of Master's programmes offered by the Department of Medicine. The panel had reported the programmes were of an overall high quality with students expressing satisfaction. The panel had further praised the excellent organisation of individual programmes, the facilities available to students, the high teaching standards and the effective use of blended learning which again had been praised by the students.

(3) That the panel had identified some aspects which were felt to be open to improvement and the Committee had considered their recommendations and the Department's responses.

(4) That the panel had found that there was a lack of coordination between different programmes and lack of a corporate identity for the programmes as a whole. The panel had recommended the sharing of good practice and where possible joint administration of programmes. The Department had responded that they had instigated a process whereby each programme would have a programme convener and a student representative who would meet on a monthly basis to discuss synergies between programmes and to share good practice. The Department had also felt that the recent appointment of a Faculty Academic Lead for postgraduate taught programmes by the Faculty of Medicine would help in this respect. The Department had said that a review was currently underway in the Faculty of Medicine with a view to rationalising the current taught programme offerings.

(5) That the panel had reported that students lacked a sense of belonging outside of their individual programme. Most students did not identify themselves as being part of the Department, Faculty or College, leading to a feeling of isolation in some cases. The Department had confirmed that cohort identity would be enhanced by the introduction of new social events to be rotated between campuses, an extended welcome event and a new student common room which had recently opened at the Hammersmith campus. This would also help to address the concerns raised by the panel of student isolation. The Committee was sympathetic to the difficulties of building a cohort identity as a perennial issue for Faculties which ran a diverse range of provision and academic programmes on multiple sites. Nevertheless, the Committee was keen to see improvements in this area and had asked the Department to keep this issue under review and report back with evidence of improvement in July 2014.

(6) That the panel had reported that there was general student dissatisfaction with feedback not being received in a timely manner and in some cases of being poor quality. The Department had commented that they had identified feedback as an area of weakness particularly with regards to NHS Trust staff teaching on the programme usually owing to other commitments. To help address this, personalised e-mails would be sent from Professor Scream, Vice-Dean for Academic Development, followed by regular reminders to the NHS Trust staff to provide students with timely and meaningful feedback. The

Committee had asked to receive evidence from the Department of improvements in this area by July 2014

(7) That the panel had reported that communication with students was lacking in some areas particularly around pastoral arrangements. The Department had confirmed that all students were made aware of pastoral arrangements at the induction day and in the student handbooks but this was now being reiterated throughout the programmes. The Department had also confirmed that student representatives were invited to attend departmental committees which were held on a monthly basis.

(8) That the panel had reported that there was some variability in student handbooks and the amount of information given in programme specifications. The panel had recommended that coordination between programmes and a standard format for programme specifications could improve this. The Department had confirmed that all student handbooks and programme specifications had now been updated and inconsistencies had been addressed. The Department had also confirmed that it would work with Registry to ensure this remained the case.

(9) That the Committee had congratulated the Department on an overall positive review and to its responses to the assessors' findings and recommendations.

Agreed: That the Senate was satisfied with the outcome of the review and approved the recommendation of the Quality Assurance and Enhancement Committee that the Department should report to the Quality Assurance and Enhancement Committee on progress made in respect to items 5 and 6 above by 1<sup>st</sup> July 2014, and to report to the Master's Quality Committee on further developments since the periodic review as part of the next internal review in three years' time.

## **1817 Report by the Quality Assurance and Enhancement Committee**

Considered: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2013/29**).

### (1) Regulation Amendments for the Inclusion of E-Learning/Blended Learning

Considered and approved: On the recommendation of the Committee, the revision of the current College Regulations to cover e-learning/blended learning, as outlined in Appendix 1 of the Senate's paper.

Agreed: That the Senate approved the Committee's revision and that the revised College Regulations covering e-learning/blended learning should take immediate effect.

### (2) Postgraduate Research Experience Survey (PRES 2013) College Response

Reported: That the Committee had considered and approved the College response to Imperial College Union's response to the PRES Survey 2013.

### (3) Summary QAA Institutional Audit Action Plan 2010

Reported: That the Committee had considered the summary of actions taken since July 2013 to address the recommendations from the QAA Institutional Audit 2010, as outlined in Appendix 2 of the Senate's paper.

### (4) Managing HE Provision with Others

Reported: (i) That in light of Chapter B10, Managing HE Provision with Others, of the QAA Quality Code, a Working Party had been established to review, revise and develop where necessary the College's policies and procedures for the approval, management and review of collaborative degrees, collaborative modules and placements. The Working Party report

had been considered by the Committee and would be circulated for further consultation by faculties and departments.

(ii) That QAEC would make its recommendations to Senate by the end of the academic year.

## **1818 Report by the Engineering Studies Committee**

Considered: A Report by the Engineering Studies Committee (**Paper Senate/2013/30**).

### (1) Second Stage Review of 'with Nuclear Engineering' courses

Reported: (i) That a sub-committee of the Engineering Studies Committee had reviewed the "with Nuclear Engineering" courses on 24 May 2013.

(ii) That the sub-committee's main recommendation was that a single Department and an appointed person should have overall ownership and co-ordination responsibility for the courses, with suitable administration support.

(iii) That the sub-committee had made a number of further recommendations, as outlined in the Senate's paper.

(iv) That in response to the sub-committee's report the representatives from the three relevant departments had noted that the review was entirely fair and agreed the departments were agreed on a way forward. The recommendations had been accepted and most were currently being implemented.

Agreed: That the Senate was satisfied with the outcome of the review and approved the recommendation of the Engineering Studies Committee that the Centre for Nuclear Engineering should report to the Engineering Studies Committee on progress made to address the points raised by the second stage review as part of the 2014 annual monitoring process.

### (2) Reorganisation of Undergraduate Courses and Examinations

#### (i) Bioengineering

Reported: That the Committee had approved a proposal to establish an exchange agreement with the University of Melbourne, Australia. That the Committee had approved a proposal for the introduction of a reading week.

#### (ii) Computing

Reported: That the Committee had approved a proposal for modification to the first, second and third years of the Joint Mathematics and Computer Science degree programmes.

#### (iii) Earth Science and Engineering

Reported: That the Committee had approved a proposal to change the Scheme for Award of Honours.

#### (iv) Electrical and Electronic Engineering

Reported: That the Committee had approved a proposal to establish an exchange agreement between the Department of Electrical and Electronic Engineering and the School of Engineering and Applied Sciences at Harvard University.

### (3) Annual Monitoring Statements

Reported: That the Committee had received Annual Monitoring Reports from the Departments of: Aeronautics, Bioengineering, Chemical Engineering, Civil Engineering, Electrical and Electronic Engineering, Earth Science and Engineering and Materials. Reports from the Departments of Computing, Mechanical Engineering and the Imperial College Business School would be considered at the next meeting of the Committee. The Departmental representatives had summarised the key points from the reports. The Committee had looked in particular at the comments of external examiners and the responses of the Department to issues raised by them. The Committee had also noted each Department's response to the National Student Survey.

(4) Survey Results

Reported: That the Committee had considered the results of the Spring and Summer SOLE Survey and the National Student Survey.

(5) Appointment of External Examiners for 2013-2014

Reported: That the Committee had approved nominations for Board Chairmen and External Examiners for the 2013-14 academic session.

## 1819 **Report by the Science Studies Committee**

Considered: A Report by the Science Studies Committee (**Paper Senate/2013/31**).

(1) Change of Degree Award Title

Considered and approved: On the recommendation of the Committee, the change of degree award title from BSc Biology with a Year in Europe to BSc Biology with Research Abroad to maintain uniformity with the Biochemistry degrees and also to make allowance for any students doing a placement year outside Europe.

Agreed: That the Senate approved the change of degree award title to BSc Biology with Research Abroad, with effect from October 2013.

(2) Reorganisation of Undergraduate Courses and Examinations

(i) Life Sciences

Reported: That the Committee had approved the withdrawal of mini-projects from the 2<sup>nd</sup> year of the Biology degree programmes, following feedback from students.

(ii) Mathematics

Reported: That the Committee had approved changes to the marking scheme for the final year modules in Mathematics, with effect from October 2013, as outlined in section 2.2 of the Senate's paper.

(3) Appointment of External Examiners

Reported: That the Committee had approved the re-appointment of existing undergraduate external examiners and the appointment of new external examiners for the Faculty of Natural Sciences and the Business School for the 2013-14 session.

Noted: (i) It was noted that new external examiners for the Department of Mathematics and ICBS were from the same institution as existing external examiners. The Committee approved the appointments, as they were not from the same department, but it was suggested that such nominations should be avoided, where possible, in the future.

(ii) That a number of Departments appoint two or more new external examiners in the same session. It was suggested, to ensure continuity, that the appointment of a new external examiner should overlap with an existing examiner where possible.

(4) Student Surveys

Reported: That the Committee had considered the results of spring SOLE 2013.

Noted: That the participation rate for all Departments in the Faculty of Natural Sciences had improved; it had nearly doubled in the Department of Chemistry.

(5) Undergraduate Annual Monitoring 2012-13

Reported: (i) That the Committee had considered the 2012-13 undergraduate annual monitoring forms for the Departments of Life Sciences, Chemistry, Mathematics, and Physics. The annual monitoring form for the Business School would be considered at the next meeting of the Committee in February 2014.

(ii) That the departmental representatives had summarised the key points from their reports, including changes made to their programmes and management structures and an evaluation of examination results and standards. The external examiner reports and departmental responses to them had also been considered.

(iii) That the Committee was satisfied with the external examiners reports and the responses from the departments, as outlined in section 5 of the Senate's paper.

**1820 Report by the Medical Studies Committee**

Considered: A Report by the Medical Studies Committee (**Paper Senate/2013/32**).

(1) Revised Procedure for the Assessment of Fitness to Practice Medicine

Considered and approved: On the recommendation of the Committee, revisions to the Procedure for the Assessment of Fitness to Practice Medicine, as outlined in section 1 and Appendix 1 of the Senate's paper.

Agreed: That the Senate recommend to Council the introduction of the revised Procedure for the Assessment of Fitness to Practice Medicine with immediate effect.

(2) Academic regulations for BSc programmes in the Faculty of Medicine

Considered and approved: On the recommendation of the Committee, regulations for the BSc programmes in the Faculty of Medicine (not covering the intercalated BSc programmes or the integrated MBBS/BSc programme), as outlined in section 2 and Appendix 2 of the Senate's paper.

Agreed: That the academic regulations for the BSc programmes in the Faculty of Medicine should be effective from October 2013.

(3) Update from the Lee Kong Chian School of Medicine (LKCmedicine)

Considered and approved: (i) On the recommendation of the Committee, the LKCmedicine External Examiner Guidelines and terms of reference for the LKCmedicine committees, as outlined in Appendix 3 of the Senate's paper.

(ii) On the recommendation of the Committee, the ratification by the Committee of action taken on its behalf to approve amended examination regulations, as outlined in Appendix 4 of the Senate's paper.

Agreed: That the Senate approve the LKCMedicine External Examiner Guidelines and the amended examination regulations.

(4) An update on the structure of the School of Medicine

Reported: That the Committee was informed that, following consultation, changes to the leadership structure within the School of Medicine had been made to improve transparency and accountability. Mr Martin Lupton has been appointed as Head of the Undergraduate School, reporting to Professor Jenny Higham who retains overall responsibility for all educational activity within the Faculty. The School would have a new Board responsible for its operation and strategy

(5) Annual Monitoring Reports 2012-13

Reported: That the annual monitoring reports for the School of Medicine and the Business School were considered. The reports had incorporated the Heads of Year reports. The Committee noted a number of key successes over the past year, as outlined in section 5 of the Senate's paper.

(6) External Examiners

Reported: (i) That the Committee had approved the external examiners and the Chairs of the respective examination boards nominated for 2013-14; it had been agreed that it would not be appropriate to reappoint existing external examiners until their reports had been received for 2012-13.

(ii) That the Committee had considered the external examiner reports for 2012-13.

(7) Education Committee reports

Reported: That the Committee had considered and ratified the reports submitted by its various subordinate committees.

(8) SOLE

Reported: That the Committee had considered the SOLE results from 2012-13. It had been noted that response rates remained too low to draw useful conclusions. In the light of this, the Committee had considered a proposal to introduce compulsory SOLE for students in the School of Medicine. It had been noted that SOLE was particularly important for managing the quality of provision within placements in partner NHS Trusts and General Practices and meaningful response rates were essential so as to provide the best possible education for our students. As consent for this change had been given by the QAEC and students had been consulted, the Committee agreed to introduce compulsory SOLE with effect from January 2014. A communications campaign would be undertaken with students to make them aware.

(9) Good practice

Reported: That the Committee had considered a paper on good practice highlighted in the 2012-13 periodic reviews and on examination feedback from the Faculty of Natural Sciences. The Committee had agreed that the papers should be disseminated to subordinate committees for further consideration.

**1821 Report by the Postgraduate Quality Committees**

Considered: A Report by the Postgraduate Quality Committees (**Paper Senate/2013/33**).

(1) New Course Proposals

(1.1) MRes in Mathematics of Planet Earth with the University of Reading

Reported: (i) That the Department of Mathematics wished to introduce a new joint MRes programme with the University of Reading.

(ii) 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. Its objective would be to train scientists with the skill set needed to address the challenges of quantifying risk and uncertainty in weather, oceans and climate, to work in a wide range of application areas in business, in weather and climate services across the world, and in research centres and universities.

(iii) That the Committee had noted that the joint MRes 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. It was further noted that in accordance with the College 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. Chair's Action had been taken to agree that the attendance requirement could be waived as an exceptional case due to the use of e-learning technologies.

(iv) That a Memorandum of Agreement was currently being agreed between Imperial College London and the University of Reading. Signing of the Memorandum of Agreement was required before the programme could be commenced.

(v) That the summary of degree requirements of the proposed MRes in Mathematics of Planet Earth was outlined in Appendix 1 of the Senate's paper.

Approved: On the recommendation of the Master's Quality Committee (Business, Engineering and Physical Sciences), the introduction of the MRes in Mathematics of Planet Earth programme with effect from September 2014, subject to the signing of the Memorandum of Agreement with the University of Reading.

(1.2) MRes in Fluid Dynamics Across Scales

Reported: (i) That the Master's Quality Committee (Business, Engineering and Physical Sciences) had considered a cross-departmental proposal for the establishment of a new MRes programme in Fluid Dynamics Across Scales, which would be introduced from October 2014.

(ii) That the MRes would form the first part of a 1 + 3 programme in a new Centre for Doctoral Training (CDT). MRes students would be registered in the Department of Aeronautics. The programme would be offered on a full-time (1 calendar year) basis only.

(iii) The programme would involve seven Imperial College departments: Aeronautics (lead), Bioengineering, Chemical Engineering, Civil and Environmental Engineering, Earth Science and Engineering, Mathematics, and Mechanical Engineering.

(iv) That the MRes proposal arose from the importance of the subject to numerous industrial, biological, biomedical, and geophysical applications. The programme would focus on and integrate across the following themes: Aerodynamics, Multiphase and Micro-flows and Fluid-Surface/Structure Interactions. It was hoped that the programme (as part of the CDT training) would produce a new generation of highly-trained and adept fluid dynamicists with an enriched and broad view of the subject, well prepared to take on industrial challenges and better the nation's international competitiveness in the field.

(v) That the summary of degree requirements of the proposed MRes in Fluid Dynamics Across Scales was outlined in Appendix 2 of the Senate's paper.

Approved: On the recommendation of the Committee, the introduction of the MRes in Fluid Dynamics Across Scales with effect from October 2014.

### (1.3) MSc in Advanced Aeronautical Engineering

Reported: (i) That the Master's Quality Committee (Business, Engineering and Physical Sciences) had considered a proposal from the Department of Aeronautics for a new MSc in Advanced Aeronautical Engineering with effect from October 2014.

(ii) That the programme would be offered on a full-time (1 calendar year) basis only. The rationale for the programme would be to establish a 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.

(iii) That the summary of degree requirements of the proposed MSc in Advanced Aeronautical Engineering was outlined in Appendix 3 of the Senate's paper.

Approved: On the recommendation of the Committee, the introduction of the MSc in Advanced Aeronautical Engineering with effect from October 2014.

## (2) Major Amendments

### (2.1) MRes in Clinical Research (Department of Medicine)

Reported: (i) That the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development) had considered a proposal from the Department of Medicine to introduce a new pathway in Diabetes and Obesity within the MRes in Clinical Research. The new pathway had been designed to provide students with a thorough grounding in cutting edge clinical research, with a strong focus on diabetes and obesity. The pathway would introduce students to modern investigative techniques including MRI and metabolomics. Students will obtain knowledge of research methodology used in clinical studies, and will gain an appreciation of the regulatory frameworks with which they are required to comply.

(ii) That the new pathway would be equivalent to the existing pathways in terms of contact hours, project time, methods of assessment and ECTS assignment.

(iii) That the Department had requested that the course title **MRes in Diabetes and Obesity** be awarded to students who follow this pathway.

(iv) That students would apply under the umbrella title of MRes in Clinical Research.

(v) That the Committee had approved the request to be effective for entry in October 2014.

Approved: On the recommendation of the Committee, the introduction of the new pathway in Diabetes and Obesity and the new course title with effect from October 2014.

### (2.2) MSc in Surgical Science (Department of Surgery and Cancer)

Reported: (i) That the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development) had considered a request from the Department of Surgery and Cancer to withdraw the part-time mode of study of the MSc in Surgical Science with effect from entry in October 2013.

(ii) That the Committee had noted that the request to close the programme to part-time

applicants resulted from the ongoing review of the Department's Master's portfolio, which had been discussed as part of the consideration of the periodic review [SM 1794 refers]. The MSc in Surgical Sciences had not recruited well for several years and the closure of the programme to part-time applicants from October 2013 would be followed by the complete closure of the programme during 2013/14. Following the meeting the Department had provided confirmation that two students who were holding offers of places on the part-time programme for 2013/14 had agreed to transfer to the full-time mode of study.

Approved: On the recommendation of the Committee, the withdrawal of the part-time mode of study of the MSc in Surgical Science retrospectively with effect from October 2013.

(2.3) MRes in Biomedical Research [Microbial Pathogenesis] (Department of Surgery and Cancer)

Reported: (i) That the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development) had considered a request from the Department of Surgery and Cancer to change the award title of the MRes in Biomedical Research [Microbial Pathogenesis] to **MRes in Biomedical Research [Bacterial Pathogenesis and Infection]** with effect from October 2014.

(ii) That the Committee had noted that the new title was intended to better reflect the focus of the Master's course on bacterial pathogenesis and bacterial infection, and the training mission of the MRC Centre for Molecular Bacteriology and Infection, where the students are based during the course.

(iii) That students apply under the umbrella title of MRes in Biomedical Research.

(iv) That the Committee had approved the new title with effect from October 2014

Approved: On the recommendation of the Committee, the change of the award title of the MRes in Biomedical Research with effect from October 2014.

(2.4) MSc in Pure Mathematics and MSc in Applied Mathematics

Reported: (i) That the Master's Quality Committee (Business, Engineering & Physical Sciences) had considered a proposal from the Department of Mathematics to introduce an alternate entry point into the MSc Pure Mathematics and the MSc Applied Mathematics programmes with effect from August 2014.

(ii) That as well as the current October entry point, candidates would be permitted to commence their MSc in August, completing in July. The course requirements for both entry points would be identical. Whilst the new mode of study would not be marketed solely to Imperial students, the Department would expect to recruit largely from the current graduating BSc cohort.

(iii) That the rationale for the new mode of study was an expected drop in the uptake by international students of the current MSci programmes as fees equilibrated between the MSci 4th year and the MSc.

(iv) That the Committee had approved the additional August start date initially as a two year pilot and had requested that the Department report back with an update during November 2014.

Approved: On the recommendation of the Committee, the additional start date on the MSc in Pure Mathematics and MSc in Applied Mathematics for a period of two years with effect from August 2014.

### (2.5) MSc in Computing (Secure Software Systems)

Reported: That the Master's Quality Committee (Business, Engineering & Physical Sciences) had 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.

Approved: On the recommendation of the Committee, the new specialism, MSc in Computing (Secure Software Systems) with effect from October 2014.

### (2.6) MRes in Chemical Biology of Health and Disease

Reported: That the Master's Quality Committee (Business, Engineering & Physical Sciences) had 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 course had developed.

Approved: On the recommendation of the Committee, the change of the award title of the MRes in Chemical Biology of Health and Disease with effect from October 2014.

### (3) Course Suspensions and re-opening of currently suspended programmes

- (i) MSc Conservation and Forest Protection, MSc Entomology, MRes Integrated Crop Pest and Disease Management, MRes Entomology and MSc Integrated Pest Management (Department of Life Sciences)

Considered and approved: On the recommendation of the Master's Quality Committee (MLSPD), the suspension of the MSc Conservation and Forest Protection, MSc Entomology, MRes Integrated Crop Pest and Disease Management, MRes Entomology and MSc Integrated Pest Management (Department of Life Sciences) programmes for the academic year 2014/15.

- (ii) PG Cert/PG Dip/MSc Infection Management for Pharmacists (Department of Medicine)

Considered and approved: On the recommendation of the Master's Quality Committee (MLSPD), the suspension of the PG Cert/PG Dip/MSc Infection Management for Pharmacists programmes for the academic year 2014/15.

- (iii) MRes Experimental Physiology and Drug Discovery (Department of Medicine)

Considered and approved: On the recommendation of the Master's Quality Committee (MLSPD), the suspension of the MRes Experimental Physiology and Drug Discovery programme for the academic year 2014/15.

- (iv) PG Cert/PG Dip/MSc Infection (Department of Medicine)

Considered and approved: On the recommendation of the Master's Quality Committee (MLSPD), the request to re-open the currently suspended PG Cert/PG Dip/MSc Infection programme for entry in October 2014.

- (v) MSc in Computing (Performance Modelling), MSc in Computing (Creative Industries) and MSc in Computing for Industry (Department of Computing)

Considered and approved: On the recommendation of the Master's Quality Committee (BEPS), the suspension of the MSc in Computing (Performance Modelling), MSc in Computing (Creative Industries) and MSc in Computing for Industry for the academic year

2014/15.

(4) Minor Modifications

Reported: That the Master's Quality Committees had approved minor changes to a number of courses, as outlined in section 4 of the Senate's paper.

(5) Renewal of Student Exchange Agreement

Reported: That the Master's Quality Committee (BEPS) had approved the renewal of the Student Exchange Agreement with the University of Tokyo which is effective from 26 July 2013 for a period of five years.

(6) Further Items

(i) Department of Civil and Environmental Engineering – Microeconomics module

Considered and approved: On the recommendation of the Master's Quality Committee (BEPS), and subject to the agreement of all of the current students, minor modifications to the format of the assessment for the Microeconomics module, retrospectively with effect from October 2013.

(ii) Department of Surgery and Cancer – MSc in Reproductive & Developmental Biology

Considered and approved: On the recommendation of the Master's Quality Committee (MLSPD), and consequent on the agreement of all of the current students, minor modifications to the format of the assessment for the MSc in Reproductive & Developmental Biology, retrospectively with effect from October 2013.

**1822 Scholarships Panel**

Received: A Report by the Scholarships Panel (**Paper Senate/2013/34**).

Noted: That the College had received a £1.5m grant from the HEFCE Postgraduate Support Scheme to fund scholarships for Master's students from low-income households through the Imperial College Master's Support Scheme.

**1823 Student Welfare Committee**

Considered and approved: The annual report of the Student Welfare Committee for 2012-13 (**Paper Senate/2013/35**).

Reported: (1) That over the course of the year, the Committee had received reports from its different constituent areas. A brief outline of these annual reports was provided in the Senate's paper.

(2) That overall, welfare support and advice at College had continued to be enhanced with high levels of satisfaction recorded in the International Student Barometer 2012 and, in general, in the ICSU Student Experience Survey 2012/13. The latter had indicated various areas for further improvement, including greater promotion of services available and more 'after hours' appointments for the Disability Advisory Service and the College Health Centre, and their introduction for Student Counselling. These areas had been addressed during the past year and will continue to be addressed during 2013/14.

(3) That the Student Hub had received an increased volume of enquiries over the previous year. 69% of enquiries had concerned statements (e.g. bank letters, council tax exemptions).

(4) That the ICSU Advice Centre had dealt with 518 cases and enquiries in 2012/13

compared with 489 in 2011/12.

(5) That late clinics at the Imperial College Health Centre had proved popular, running every Tuesday during term time. A second late session had been planned to run on Thursday starting in spring 2014.

(6) That income for the Hardship Fund, from donations, fines and other sources had continued to decline and although the removal of dyslexia expenditure would greatly slow the decrease in the value of the Fund each year, the Student Welfare Committee (October 2013) had recommended that the College review potential options to ensure an increased and sustainable income stream for the fund.

**1824 Staff Matters**

Received: A Note by the Provost (**Paper Senate/2013/36**).

**1825 Scholarships Awarded**

Reported: The award of scholarships for 2013-14 (**Paper Senate/2013/37**).

**1826 Prizes and Medals Awarded**

Reported: The award of prizes and medals for 2012-13 (**Paper Senate/2013/38**).

**1827 Appointment of External Examiners in 2013-14**

Received: the names and affiliations of External Examiners for undergraduate and Master's degrees appointed to act at 2013-14 examinations since the last Senate meeting. (**Paper Senate/2013/39**).

**1828 Monitoring Statement for the 2012-13 Academic Year**

Received: the College Monitoring Statement to the HEFCE for the 2012-13 Academic Year. (**Paper Senate/2013/40**).

**1829 DSc Committee**

Received: a Report from the DSc Committee. (**Paper Senate/2013/41**).

**1830 Award of Degrees and Diplomas**

Reported: That under the provisions of University of London Ordinance 9(2) and Imperial College London Ordinance B1(1), and with the terms of SM 8 of October 1998, that the Academic Registrar had acted on behalf of the Senate in approving the awards for undergraduate and postgraduate degrees for candidates who had satisfied the examiners in the examination and satisfied all other necessary requirements for the award of the degrees, and that degrees had been conferred on these candidates, the date being as indicated on the award.

**1831 Any Other Business**

Reported: (1) That the School of Medicine had received unofficial notification that they will receive funding from the Sutton Trust to support a gateway to medicine programme which would allow the expansion of outreach activities to more pupils including those of a younger age than targeted previously.

Further reported: That the Senate congratulated Dr Kevin Murphy and the School of Medicine on securing this funding.

Reported: (2) That undergraduate application numbers had increased by almost 10% in 2012/13 and that resources for handling applications within Departments were stretched.

Reported: (3) That the deadline for applications to most undergraduate courses was 15 January, but that, in order to be considered for the Rector's Undergraduate Scholarships, undergraduate applicants must have applied to the College by 15 October, and that this inconsistency was causing some concern amongst Admissions Tutors.