

SENATE

Minutes of Meeting held on 10 December 2014

Present: The Provost, Professor James Stirling (Chair); Professors Anandalingam, Autio, Cilliers, Gardner, Gibson, Higham (representing Professor Kelleher), Magee, Matar, McCoy, Parry, Richardson, Smith, Thompson, Welton, Wright; Associate Professor Miraldo, Drs Archer, Buluwela, Craig, Gounaris, Kingsbury, Mr Tebbutt; Mr Loose, Ms Mahmud, Mr Wheeler (Student Representatives); with Mr Pateman (Academic Registrar) and Ms Baker (Senior Assistant Registrar).

Apologies: Professors Dallman, Humphris, Kelleher, Matar, McGregor, Riboli; Drs Fobelets, McPhail.

In attendance: Mr Neilson

The Provost welcomed Dr Martyn Kingsbury as a new member of the Senate.

1923 Minutes

The Minutes of the meeting of the Senate held on 29 October 2014 were confirmed. Subsequent to the meeting it was noted that the minutes had been numbered incorrectly and were revised accordingly.

1924 Matters Arising

Minute 1913 (2) : Admissions 2016

Reported: (i) That it was proposed that there should be a discussion of the implications of the forthcoming A level reforms for the College admissions cycle at the February meeting of the Senate.

(ii) That the Academic Registrar would prepare a paper to provide the background for the discussion. This would include feedback already received from within College. Members were invited to send any further comments to the Academic Registrar in advance of the meeting.

1925 Provost's Business

Received: A Report from the Provost (**Paper Senate/2014/21**).

(1) Athena Awards

Reported: (i) That, in the recent announcements, both the Institute of Clinical Sciences and the Department of Surgery and Cancer had achieved bronze awards, whilst the Department of Chemical Engineering and the National Heart and Lung Institute had both had silver awards renewed.

(ii) That the Faculty of Medicine was now the first faculty to hold awards across all departments.

Further Reported: That the Senate congratulated these departments on their achievement.

(2) Senior Staff Recruitment

Reported: That it was expected that announcements concerning the positions of Vice-President (Advancement) and Imperial West Programme Director would be made later in December, or early in January.

(3) College Strategy

Reported: That initial ideas for the 2015-20 College Strategy had been explored at a workshop held in November. Some key themes were being drawn out and would be synthesised into a 'Green Paper' to form the basis of a Council Away Day devoted to discussing the strategy in February, and College-wide consultation subsequently.

(4) Membership of the Senate

Reported: That the constitution of the Senate had been amended by the Council to include the President of the Graduate Student's Union, with immediate effect (SM 1898 of 29 October 2014 refers).

1926 Vice Provost's Business

Received: A Report from the Vice Provost (Education) (**Paper Senate/2014/22**).

(1) Imperial Horizons

Reported: (i) That in 2013/14 the programme had been available to all 1st and 2nd year undergraduates. 3rd/4th year undergraduates had been able to take courses during the lunchtime programme of Languages and Humanities.

(ii) That in 2014/15 *Imperial Horizons* courses were available to all undergraduates in all years of study, as detailed in section 1 of the Senate's paper.

(iii) That the formal lunchtime programme had now been discontinued due to changes to the College Day.

(iv) That the number of enrolments by year group on each course, and enrolments by Department for each year group, were as detailed in Appendix I of the Senate's paper.

(2) English Language Entry Requirements

Reported: The mapping of the College's English Language Requirements, as detailed in section 2 and Appendix II of the Senate's paper.

(3) Education Day

Reported: That the next annual Education Day conference would take place on Wednesday 11 March 2015. The theme would be 'Students as Partners', and the discussion would focus on how students can be involved as partners in programme design, in research and in assessment and feedback.

(4) Student Health & Wellbeing recommendations

Reported: That the Provost's Board had discussed the report and recommendations of the Student Health & Wellbeing Task Group, and had endorsed the recommendations and principles identified, as detailed in section 4 of the Senate's paper.

(5) Imperial Summer Working group

Reported: (i) That the Provost's Board had agreed the establishment of a working group to define a College-wide strategy in time to be implemented for the 2016 summer vacation period, as detailed in section 5 of the Senate's paper.

(ii) That the working group terms of reference had been slightly changed from those presented to the Senate.

1927 **The Student Experience – An Update**

Received: A paper from the Vice Provost (Education) (**Paper Senate/2014/23**) and (tabled) the Imperial College Union (ICU) NSS Response 2014.

Reported: (1) That the results of the 2011 National Student Survey (NSS) had indicated that there was a need for the College to address some significant weaknesses in the student learning experience, leading the Council to debate the issue at its Away Day in November 2011.

(2) That over the past three years, the introduction of Departmental and Faculty action plans had focused the leadership of improvement and change at the department level, creating an emphasis on improving the overall student experience.

(3) That the Council had received, at its meeting in November 2014, an update on the student experience as indicated by external satisfaction surveys, following the implementation of the action plans.

(4) That the Council had endorsed the target that the College should aim to be in the top two quartiles for undergraduate student satisfaction across all subjects, and had endorsed the College-wide focus this year on improving the Assessment and Feedback experience for students, as outlined in the Senate's paper.

(5) That the Imperial College Union NSS Response 2014 had noted that student dissatisfaction with the feedback received on coursework and exams remained a constant issue. The ICU NSS Response 2014 had therefore been themed around feedback.

Considered: (1) The recommendations highlighted in the ICU NSS Response as benefitting feedback.

(2) The importance of formative feedback and the need to identify and share good practice operated by departments in which levels of student satisfaction were highest.

(3) The mechanisms departments had in place to provide feedback to students on their performance in written examinations, especially with regard to access to examination scripts. Further clarity was sought as to whether examination scripts may be returned to candidates.

Post-Meeting Note: Subsequent to the meeting, it was confirmed that examination scripts should not be returned to candidates. Departments must have agreed mechanisms in place to provide feedback to students on their performance in written examinations. These include the provision of general information to the class as a whole, and, in some departments, more individual feedback given to students through their personal tutor. [Paper Senate/2010/82 and SM 1494(8) of 11 May 2011 refers].

Agreed: That the College would continue to work with the ICU to review and implement the recommendations from the ICU NSS Response.

1928 **Research Degree Submission Rates**

Considered and approved: Action Plans from the Faculty Deans (**Paper Senate/2014/24**).

Reported: (1) That the Senate had been concerned to note that the College research degree submission rate had fallen in 2012-2013 for the second successive year and that the faculties had been asked to develop action plans to address this decline (Paper Senate/2014/12 and SM 2002 (11) of 29 October 2014 refers).

(2) That three of the four action plans presented had identified the need for more active management of the progression milestone processes, and had proposed measures to more actively manage these timelines. The plans had highlighted the need for effective tracking and reporting mechanisms.

(3) That faculties were using local postgraduate student databases to monitor and report on student progress. The Senate endorsed the suggestion that an ICT supported College-wide research student tracking system would be preferable.

(4) That further consideration should be given to making adjustments to the length of the approved study period in the case of a student funded for longer than 36 months.

Agreed: That progress against the Faculty action plans should be monitored by the Postgraduate Research Quality Committee.

1929 **Student Welfare Committee**

Considered and approved: The annual report to Senate by the Director of Student Support (**Paper Senate/2014/25**).

Reported: (1) That over the course of the year, the Committee had discussed issues and reports from its different constituent areas. An overview of the activities of these services was provided in the Senate's paper.

(2) That the pre order document service had run from 8 - 28 September in 2014, a week longer than in September 2013. There had been a fall in the numbers handled by the Student Hub due to the introduction of a Records request document system which allowed students to receive their documents via e-mail and post.

(3) That the ICU Advice Centre had dealt with 205 cases in 2013/14, the most common issues being: Housing (28%), Money (21%), Academic Appeals (18%), Complaints (13%) and Legal (7%). Home students had accounted for 49% of cases; undergraduate students 54% of cases; PGR students 31% of cases. During 2013/14 a new casework system had been introduced and the role of the Student Advisor had been expanded to include more training and campaigns.

(4) That demand for the Student Counselling Service had continued to increase. Over the period 2009/10 to 2013/14, demand had increased by 48%, compared to growth in student numbers over the same period of 9%. The most common presenting issues were, as in previous years, Depression, Anxiety, Relationships, Academic and Loss. Increased staffing would be sought in the 2015/16 planning round. With increased staffing levels the Student Counselling Service would develop the service in several domains, including on-line counseling and additional student workshops.

(5) That the number of students with a declared disability had continued to rise but that Imperial was still below the average for STEM universities, which stands at 8.4%. In June 2014, 6.4% of full and part-time students at Imperial declared a disability, compared with 6.1% of students in May 2013. Home students had continued to be over-represented in declaring a disability and more work would be needed to encourage EU, and in particular, international students, to do so. Measures taken to promote the Disability Advisory Service included upgrading of web pages and information leaflets; Dyslexia Awareness Week; enhanced presence at open days and welcome events.

(6) That the number of students registered with the Health Centre had increased in 2013/14, due to the re-opening of Wilson House and an enhanced campaign involving the Hall Wardens to ensure as many incoming undergraduates registered with the Health Centre as possible. A Thursday late clinic had been successfully piloted in the Spring Term 2014 and would run during the Autumn and Spring Terms in 2014/15.

(7) That International Student Support (ISS) had had a large number of visitors to the Office (an average of 480 per month), with over 1,800 in September 2014 which was an increase of 540 compared with September 2013. The September 2014 increase had been attributed to a number of factors: the new Police Registration process operated by ISS (420 applications submitted in September 2014), the increase in Business School Master's programmes starting in September combined with growing numbers of pre-sessional English students in both the Business School and the Centre for Academic English over the summer.

(8) That the number of in-sessional English programme registrations in 2013/14 had increased to 953 compared with 838 in 2012/13, with particularly large increases in the numbers of research (+34%) and undergraduate students (+30%). The Centre for Academic English had offered a wider range of distinct courses for students and all courses had moved to online registration. The Centre had also been working on the development of on-line courses to complement and extend the face-to-face courses offered. The Centre had run a joint workshop with Careers for students needing help in finding the appropriate language for job applications, personal statements etc. During 2013/14, the Centre had held discussions with the Business School to look for synergies in relation to respective in-sessional and pre-sessional provision, including sharing of best practice and resource saving initiatives.

(9) That slightly higher numbers of applications for hardship funding had been received in 2013/14. The College had spent £32,267 on 43 recipients, at an average of £750 per award. From October 2014, the Student Support Fund had replaced the former Access to Learning Fund for home students and the College Hardship Fund for EU and international students. The aim of the Student Support Fund was to help students experiencing genuine financial hardship with a one-off grant of up to £1000 to help with their cost of living. The fund would not provide any support towards tuition fees.

(10) That the Senate congratulated the Services involved on the very thorough report and on a very effective year.

1930 Reporting Examination Incidents

Considered: A Note from the Academic Registrar (**Paper Senate/2014/26**).

Reported: (1) That the Senate had previously discussed the procedure to be followed in the event of any disruption or interruption in the examination hall arising from the management or preparation of the examination (Paper Senate/2014/07) and asked for some minor modifications to be made (SM 1906 of 29 October 2014 refers).

2) That amendments had been made to the new section to be included in the "Notes for the Guidance of Invigilators: Examination Disturbances".

Approved: Revisions to the "Notes for the Guidance of Invigilators: Examination Disturbances", as outlined in Appendix I of the Senate's paper, with immediate effect.

1931 Review of Undergraduate Level Provision in the Centre for Co-Curricular Studies

Considered and approved: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2014/27**).

Reported: (1) That in its review of undergraduate teaching in the Centre for Co-Curricular Studies, the Quality Assurance and Enhancement Committee had been advised by five assessors who had visited the Department on 26 June 2014.

(2) That the review panel had recognised that the CCCS made a substantial contribution to the Language for Science combined degree programmes, as well as running the Imperial Horizons co-curricular courses and language courses for Year Abroad programmes.

(3) That the reports of the assessors had highlighted that the students were very well supported. The documentation provided in handbooks and via Blackboard had been considered as impressive, clear and well structured. The use of wikis and of collaborative workspaces for group projects, and the use of metrics to monitor the contribution of individual members for assessment, had been felt to be especially impressive.

(4) That the panel had found it to be particularly notable that the wide variety of coursework used by the CCCS was typically returned in a timely manner and with extensive comments relating to both style and content. The panel had cited the student satisfaction numbers as exemplary.

(5) That the panel had commended the effort and passion of the CCCS staff who worked closely together in a professional and dedicated manner in order to create meaningful, relevant and high level courses.

(6) That the panel had made thirteen specific recommendations, all of which had been thoroughly considered and responded to by the CCCS. The Chair of the panel had confirmed that he was satisfied with the responses presented.

(7) That the panel had highlighted several examples of good practice, including:

(i) The use of several assessment methods for each module (e.g. the four varied written and presentation submissions required for Engineers Without Borders) and of some ingenious ones (e.g. the assessed group wiki which students produce for The World Today).

(ii) The use of a Virtual Learning Environment (VLE) as a collaborative workspace, and the use of its metrics to assess individual student contributions.

(iii) The use of peer assessment and feedback to reflect modern professional practice.

(iv) The use of extensive course documentation to stabilise the delivery of modules staffed by a large population of relatively transient tutors and visiting staff.

(v) The use of elaborate on-line components on Blackboard, providing course information, homework tasks and further readings.

(vi) The use of Blackboard to create wikis as part of their group work, providing an easy way for students to keep informed and to collaborate in their own time.

Further reported: (8) That a review of the Horizons programme was being undertaken as part of the College's strategic planning process, and that a number of the recommendations from the review had been included in the terms of reference.

(9) That there were no plans to change the name of the Centre for Co-Curricular Studies.

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 Centre for Co-Curricular Studies should report on progress made in addressing recommendations from the review as part of the annual monitoring process in 12 months' time.

1932 Review of Undergraduate Level Provision in the Department of Life Sciences

Considered and approved: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2014/28**).

Reported: (1) That in its review of undergraduate teaching in the Department of Life Sciences, the Quality Assurance and Enhancement Committee had been advised by five assessors who had visited the Department on 6 May 2014.

(2) That the panel had reported that discussions with students had revealed a high level of satisfaction with the programmes offered by the Department. The reports of the assessors had highlighted the opportunity for students to undertake a piece of research in the form of a final year project as a particular strength, and the panel had commented that students valued the experience of learning in a department so highly rated for research. The advanced courses in the final year were considered to be an excellent example of research-led teaching, and the panel noted that a research perspective informed the teaching in earlier years as well.

(3) That the panel had considered it to be one of the strengths of the programmes that structured feedback forms were provided for the use of staff, and that forms were tailored to each assessment format. This meant that even inexperienced staff had a clear framework which enabled them to provide students with meaningful, useful feedback which should help them enhance their future performance. In addition, the use of clear and detailed verbal descriptors was thought to assist markers in attaining consistency of marking. Nevertheless, the panel had suggested that not all staff were using the forms effectively, as evidenced by the relatively poor NSS results for feedback, and from the panel's discussions with students on the day of the visit.

(4) That the panel had commented that students received excellent supporting material in the form of year handbooks, the welcome pack and web resources. The provision of a complete list of coursework submission dates for the year had been identified as an example of good practice. The panel had noted that learning resources had been highly rated by students in NSS 2013, and that the students appreciated the efforts made to provide them with some social/work space.

(5) That the panel had commended the Department for their approach to managing SOLE data by requiring staff to reflect upon the feedback and post their responses on Blackboard.

(6) That the panel had made nineteen specific recommendations which had been considered and responded to by the Department. The Department was subsequently asked to make a further response in the case of four of the recommendations as follows:

1/19 - that the focus should remain on monitoring demand for the introduction of a consistent degree class assessment within the Department;

3/19 – that the Department should introduce a formalised system of peer observations such that all staff would be peer reviewed every two to three years;

4/19 – to confirm the purpose of the town hall meetings as a means of providing a forum for discussion and dissemination of information;

9/19 – to implement a system that permits anonymous feedback on project supervision during and following the project work.

(7) That the Department had been able to provide reassurances on all of the above issues and that the Chair of the panel had confirmed that he was satisfied with all of the

responses to the recommendations as presented.

(8) It was further reported that the Department had subsequently provided staff training in the use of Panopto, and was actively engaging in plans for a Faculty trial of TESTA methodology (Transforming the Experience of Students through Assessment).

(9) That the panel had highlighted several examples of good practice, including:

(i) The Good Practice Teaching Workshops initiated by Professor Curry, which provided valuable opportunities for staff to share ideas and troubleshoot problems.

(ii) The use of Socrative to provide instant formative feedback during lectures, which was valued by students.

(iii) The use of open-ended practicals in the second year, which required the students to design their own experiments and provided excellent levels of stretch and challenge.

(iv) The expectation that all staff would contribute significantly to teaching.

(v) The excellent internal review carried out by the Department in 2011, resulting in the implementation of a well-considered and significant set of changes.

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 Science Studies Committee on progress made in addressing recommendations from the review as part of the annual monitoring process in 12 months' time.

1933 Review of Master's Level Provision in the School of Professional Development

Considered and approved: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2014/29**).

Reported: (1) That in its review of Master's level provision in the School of Professional Development (SPD), the Quality Assurance and Enhancement Committee had been advised by four assessors who had visited the Department on 13 May 2014.

(2) That the reviewers' reports had highlighted that the SPD delivered two suites of very good programmes to a very high standard. The panel had recognised that the academic disciplines covered by the SPD and their student cohorts were distinctly different from most of the College's taught provision, and that the School had a different approach and perspective to many of the College's departments. The panel had acknowledged that the School had much to offer regarding the College's central mission to educate and communicate important ideas in science, engineering and medicine.

(3) That the panel had noted that the students seemed to be highly engaged with the programmes; that the minutes of the staff- student committees showed real interest on the students' part, and significant and constructive dialogue with the School about aspects of programme delivery.

(4) That the panel had considered the two-week turnaround on formally assessed work in the Science Communication programmes to be particularly impressive, especially in view of the nature of the work assessed on these programmes, and had commended the School on the quality of individual feedback provided by staff. Likewise, the University Learning and Teaching (ULT) programmes had been commended for the structural emphasis on formative, timely feedback for students and the high quality of interaction between staff and students.

(5) That the panel had made four specific recommendations which had been considered

and responded to by the SPD. The School had subsequently been asked to make a further response to the recommendation that it would be useful for Heads of Department to be given clear guidance on the time resource that should be 'ring-fenced' for ULT study, and that the admissions process should incorporate clear written guidance on the workload requirements. The School had been able to provide reassurances that this recommendation would be adopted.

(6) That the Chair of the panel had confirmed that he was satisfied with all of the responses to the recommendations as presented.

(7) That it had been further reported that issues with the School's IT provision which had been identified by the reviewers, were being addressed by means of the investment of additional resource in this area.

(8) That the panel had highlighted several examples of good practice, including:

(i) The breadth, diversity, expertise and enthusiastic engagement offered by the School's staff.

(ii) The wide variety of examination, group working and practical skills assignments used, which created a stimulating environment in which critical thinking and creativity were encouraged.

(iii) The achievement of the two-week turn-round target on providing feedback to students, and the detailed feedback given.

(iv) The excellent integration of theoretical and 'craft' aspects of the education and training offered. This included an excellent 'industrial placement' scheme for the Science Communication programmes, alongside the more intellectually rigorous elements, which added to the practical and transferable skills gained at Imperial. Similarly, the ULT programmes combined scope for young academics to engage in theoretical aspects of Education before focusing their efforts into reflecting on topics that related to the scientific, technical or medical academic areas which they teach and study.

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 SPD should report to the Master's Quality Committee on progress made in addressing recommendations from the review as part of the annual monitoring process in 12 months' time.

1934 Review of Master's Level Provision in the School of Public Health

Considered and approved: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2014/30**).

Reported: (1) That in its review of Master's level provision in the School of Public Health, the Quality Assurance and Enhancement Committee had been advised by five assessors who had visited the Department on 18 July 2014.

(2) That the reviewers' reports had highlighted that the three Master's programmes run by the School were all highly valued by the students. The panel had commented that the programmes were clearly integrated into the research of the department and that the students were a valued part of the department. In all programmes, the students had identified the research projects as a strength, and enjoyed access to and working with world experts.

(3) That the panel had made seven specific recommendations which had been thoroughly considered and responded to by the School. The Chair of the panel had confirmed that he was satisfied with the responses presented.

- (4) That the panel had highlighted several examples of good practice, including:
- (i) The good social cohesion developed within each individual programme, which was being enhanced through student-led use of social media.
 - (ii) The opportunity for students on the Human Molecular Genetics programme to undertake research projects at collaborating institutes overseas, and for those on the Master of Public Health programme to interact with and visit the WHO in Geneva.
 - (iii) The experimental use of the 'flipped classroom' technique in MSc Epidemiology teaching, and the use of Google Calendar to overcome problems in unplanned timetable changes.
 - (iv) The excellent MSc Human Molecular Genetics wet labs and computer rooms at Hammersmith.
 - (v) The effective use of Teaching Fellows to deliver a sizeable portion of the curricula and the participation of the department in the development of their Teaching Fellows.
 - (vi) The Master of Public Health modules taught in conjunction with the Business School.

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 School of Public Health should report to the Master's Quality Committee on progress made in addressing recommendations from the review as part of the annual monitoring process in 12 months' time.

1935 Review of Research Degree Provision in the Department of Earth Science and Engineering

Considered and approved: A Report by the Postgraduate Research Quality Committee (**Paper Senate/2014/31**).

Reported: (1) That in its review of research degree provision in the Department of Earth Science and Engineering, the Postgraduate Research Quality Committee had been advised by five assessors who had visited the Department on 21 May 2014.

(2) That the reviewers had rated the Department of Earth Science and Engineering "compliant" with each of the eighteen precepts and "compliant" overall. The panel had considered that the research programme provided excellent research training and support for postgraduate students, and had noted that research supervisors took their role very seriously and cared about their students. The panel had observed, from talking to the research students, that they very much appreciated this professionalism and the care and support provided to them.

(3) That the panel had commented on the excellence of the physical working environment, conducive to the conduct of first rate research, and on the highly collegial and friendly working atmosphere.

(4) That the panel had made four specific recommendations which had been thoroughly considered and responded to by the Department. The Chair of the panel had confirmed that he was satisfied with the responses presented.

(5) That the panel had highlighted several examples of good practice, including:

- (i) The welcome process and general student induction.

- (ii) The student handbook, which was of the very highest quality.
- (iii) The transparent allocation of PhD students, and funding, to staff.
- (iv) The in-house online student information system (EISIS).
- (v) The excellent working environment for students and the cohesive feeling provided by coffee and meeting rooms.
- (vi) The organisation of GTAs and, in particular, the use of three "super GTAs" to arrange the allocation of teaching support.

Agreed: That the Senate was satisfied with the outcome of the review and approved the recommendation of the Postgraduate Research Quality Committee that the Department should report on developments since the periodic review as part of the next Precept Review in three years' time.

1936 **Quality Assurance and Enhancement Committee (QAEC)**

Considered: A Report by the Quality Assurance and Enhancement Committee (**Paper Senate/2014/32**).

(1) Short Course Quality Committee

Considered and approved: On the recommendation of the Quality Assurance and Enhancement Committee, the establishment of a Short Course Quality Committee (SCQC), as outlined in section 1 and Appendix I of the Senate's paper, with effect from January 2015.

(2) Faculty of Medicine Summer School

Considered and approved: On the recommendation of the Quality Assurance and Enhancement Committee, the establishment of the Faculty of Medicine Summer School in Revolutions in Biomedicine, as outlined in section 2 and Appendix II of the Senate's paper, with effect from summer 2015.

Reported: That the summer school would be run as a pilot in 2015.

(3) Academic Standards Framework

Noted: That the Vice Provost (Education) and the Academic Registrar were working with the faculties and departments to develop an academic standards framework, and that the draft framework would be presented for Senate debate and approval in the spring term 2015.

(4) Periodic Review Schedule

Noted: That the Quality Assurance and Enhancement Committee had approved the review schedule for the academic years 2014-2015 to 2019-2020.

(5) World Class Research Supervision Survey

Noted: (i) That the Quality Assurance and Enhancement Committee had approved a proposal from the Graduate School to run a one-off survey of research degree students on the subject of research supervision.

(ii) That the findings of the survey would inform the World Class Research Supervision Project, which was an outcome of the Education and Student Strategy.

(iii) That the survey had been launched on 19 November 2014 and would run until mid-

December 2015.

(6) Review of Student Engagement Key Performance Indicators (KPIs)

Noted: That the Quality Assurance and Enhancement Committee had considered the ICU's review of student engagement KPIs and had recommended that in future the KPIs should be included as an index to the ICU's annual Student Impact Report. The Committee agreed to consider the Student Impact Report on an annual basis.

(7) Active Student Exchange Links 2014-5

Noted: That the Quality Assurance and Enhancement Committee had noted the active student exchange links for 2014-5.

(8) HEFCE Consultation on the Future of Quality Assurance

Noted: (i) That the Higher Education Funding Council for England (HEFCE) had informed the Quality Assurance Agency (QAA) of the intention to consult on the future of its quality assessment arrangements in fulfilment of its current statutory responsibilities, and then to put its contract for quality assessment out to competitive tender.

(ii) That the Quality Assurance and Enhancement Committee had noted that, although new arrangements may be in place by the time of the College's scheduled review in 2016-17, the College would continue to prepare as if for the QAA Higher Education Review (HER) style review.

(iii) That the College's preparations for the QAA Higher Education Review would start around Christmas 2014.

1937 Report by the Engineering Studies Committee

Considered: A Report by the Engineering Studies Committee (**Paper Senate/2014/33**).

(1) Reorganisation of Undergraduate Courses and Examinations

(i) Aeronautics

Reported: That the Committee had approved a proposal to renew the exchange agreement with the Universitat Politecnica de Catalunya, Spain, with effect from October 2014.

(ii) Computing

Reported: That the Committee had approved a proposal for changes to the requirements for the first and second years of the BEng and MEng degree programmes, with effect from October 2014.

(iii) Earth Science and Engineering

Reported: That the Committee had approved a proposal for changes the Scheme for Award of Honours, with effect from October 2014.

(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, with effect from October 2014.

(2) Annual Monitoring Statements

Reported: (i) That the Committee had received Annual Monitoring Reports from the Departments of Aeronautics, Bioengineering, Civil Engineering, Computing, Earth Science and Engineering, Materials, Mechanical Engineering and Imperial College Business School, and External Examiner Reports in respect of the Mathematics for Engineers programme.

(ii) That reports from the Departments of Chemical Engineering and Electrical and Electronic Engineering would be considered at the next meeting of the Committee.

(iii) That the key points from the reports had been presented and that the Committee had looked in particular at the comments of external examiners and at the responses of the Department to issues raised by them. The Committee also noted each Department's response to the National Student Survey.

(3) Appointment of External Examiners for 2014-2015

Reported: That the Committee had approved nominations for Board Chairs and External Examiners for the 2014-15 academic session.

(4) Summary of External Examiners' reports

Reported: That the Committee had considered a paper summarising good practice, common themes and key areas of concern identified by External Examiners in their reports on Undergraduate level programmes during the 2012-13 academic year.

(5) Good Practice

Reported: That the Committee had noted a paper detailing examples of good practice highlighted within individual periodic reviews which had been reported to Senate during the 2013-14 academic session.

1938 Report by the Medical Studies Committee

Considered: A Report by the Medical Studies Committee (**Paper Senate/2014/34**).

(1) Terms of Reference and Membership

Considered and approved: On the recommendation of the Medical Studies Committee, minor changes to the terms of reference, with immediate effect, as outlined in section 1.1 and Appendix I of the Senate's paper.

(2) Lee Kong Chian School of Medicine

Considered and approved: On the recommendation of the Medical Studies Committee, amendments to the LKCMedicine MBBS programme, as follows:

- a) Changes to the LKCMedicine MBBS programme, as outlined in appendix II of the Senate's paper:
- b) Revisions to the Admissions Policy and Procedures, as outlined in appendix III of the Senate's paper:
- c) Revisions to the Examination and Assessment Strategy Phase 1, as outlined in appendix IV of the Senate's paper:

Reported: That the changes were an expected consequence of the progression of the

new programme.

(3) Annual Monitoring Reports 2013-14

Reported: (i) That the annual monitoring reports for the School of Medicine, Imperial College Business School and the Lee Kong Chian School of Medicine had been considered. The Committee had looked in particular at the comments of external examiners and at the responses of the Department to issues raised by them.

(ii) That the Committee had noted a number of key successes over the past year, and had noted action being taken where concerns had been identified, as outlined in section 3 of the Senate's paper.

(4) External Examiners

Reported: That the Committee had approved the external examiners and the Chairs of the respective examination boards nominated for 2014-15; it had been agreed that it would not be appropriate to reappoint existing external examiners until their reports had been received for 2012-13.

(5) Education Committee reports

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

(6) National Student Survey

Reported: That the Committee had considered the NSS results from 2013-14 and had noted action being taken in response.

(7) SOLE

Reported: That the Committee had considered the SOLE results from the summer term 2013-14. The Committee had noted that response rates remained highly variable and in some cases too low to be reliable. The Committee noted that the School had undertaken a pilot of a candidate replacement system for SOLE, and that this had nearly tripled participation. The Committee had expressed a hope that further expansion of this pilot would be undertaken.

(8) Good practice

Reported: That the Committee had noted the external examiner summary report (2012-13) and a paper detailing examples of good practice highlighted within individual periodic reviews which had been reported to Senate during the 2013-14 academic session. The Committee had agreed that the papers should be disseminated to subordinate committees for further consideration.

1939 Report by the Science Studies Committee

Considered: A Report by the Science Studies Committee (**Paper Senate/2014/35**).

(1) BSc/MSci Mathematics with Education

Reported: (i) That the Committee had considered a proposal from the Department of Mathematics to establish a BSc/MSci programme in Mathematics with Education, starting in January 2015, as outlined in section 1.1 of the Senate's paper.

(ii) That the proposal had closely followed the design of the existing BSc degree

programme in Physics with Science Education, which had been running since October 2012 and had graduated four students to date, and the MSci in Physics with Science Education, which was due to start in 2015.

(iii) That the Department did not intend to admit students directly onto these degrees, but to allow students on the 2nd year of a BSc Mathematics degree or the 3rd year of an MSci Mathematics degree to transfer onto the new BSc and MSci programme respectively.

(iv) That the Committee had been mindful of the similarity with the existing degree programmes in Physics with Science Education, and based on the curriculum documentation submitted, had been fully supportive of the proposed new programme.

Further reported: That the Academic Registrar would work with the Department to ensure that the necessary paperwork was submitted and that appropriate external review of the proposal was undertaken.

Approved: On the recommendation of the Science Studies Committee, and subject to the College's collaborative programme approval processes being satisfactorily completed, the BSc and MSci in Mathematics with Education degree programmes, for internal transfer only, with effect from January 2015.

(2) Modifications to Undergraduate Programmes and Examinations

(i) Life Sciences

Considered and approved: On the recommendation of the Committee, the change of degree award title for the BSc degree programmes in the Department of Life Sciences, replacing "Biology" with "Biological Sciences", as outlined in section 2.2 of the Senate's paper.

Correction: Subsequent to the meeting, it was confirmed that the renaming of the relevant BSc programmes would become effective for new entrants from October 2016.

(3) Reorganisation of Undergraduate Programmes and Examinations

(i) Chemistry

Reported: That the Committee Chair had approved an addition to the assessment procedures for extra-ECTS placements, with effect from October 2014, as outlined in section 3.1 of the Senate's paper.

(ii) Business School

Reported: (i) That the Committee Chair had approved an amendment to the assessment format and weightings of the Project Management module (BS0821), with effect from October 2014, as outlined in section 3.2 of the Senate's paper.

(ii) That the Committee had approved changes to the assessment of the Business for Professional Engineers and Scientists programme, with effect from October 2014, as outlined in section 3.2 of the Senate's paper.

(4) Annual Monitoring Statements

Reported: (i) That the Committee had received Annual Monitoring Reports from the Departments of Chemistry, Imperial College Business School, Life Sciences (Biochemistry & Biotechnology), Life Sciences (Biology), Mathematics and Physics.

(ii) That the key points from the reports had been presented and that the Committee had looked in particular at the comments of external examiners and at the responses of the

Department to issues raised by them. The Committee also noted each Department's response to the National Student Survey.

(5) Appointment of External Examiners for 2014-2015

Reported: That the Committee had approved nominations for Board Chairs and External Examiners for the 2014-15 academic session.

(6) Summary of External Examiners' reports

Reported: That the Committee had considered a paper summarising good practice, common themes and key areas of concern identified by External Examiners in their reports on Undergraduate level programmes during the 2012-13 academic year.

(7) Good Practice

Reported: That the Committee had noted a paper detailing examples of good practice highlighted within individual periodic reviews which had been reported to Senate during the 2013-14 academic session.

1940 Postgraduate Quality Committees

Considered: A Report by the Postgraduate Quality Committees (**Paper Senate/2014/13**).

(1) New Programme Proposals

(1.1) MRes in Business (Imperial College Business School)

Reported: (i) That the Master's Quality Committee (Business, Engineering and Physical Sciences) had considered and approved a proposal from the Imperial College Business School for a new MRes in Business with effect from September 2015, as outlined in section 1.1 of the Senate's paper.

(ii) That the programme would be aimed at students who were seeking a career in finance, economics or management research. The programme would be an introduction to theory and research methods in finance, economics and management and would provide a solid foundation for students to continue on to doctoral studies.

(iii) That the programme would be offered on a full-time (1 calendar year) basis only.

(iv) That the academic entry requirement for the programme included a requirement for students to hold a previous Master's level qualification.

(v) That the programme specification for the proposed MRes in Business was provided in Appendix I of the Senate's paper.

Approved: On the recommendation of the Committee, the introduction of the MRes in Business with effect from September 2015.

(1.2) MSc in Sustainable Retirement Investment and Management (Centre for Environmental Policy)

Reported: (i) That the Master's Quality Committee (Business, Engineering and Physical Sciences) had considered and approved a proposal from the Centre for Environmental Policy for a new MSc in Sustainable Retirement Investment and Management with effect from June 2015, as outlined in section 1.2 of the Senate's paper.

(ii) That the programme had been given strategic approval by the Quality Assurance and

Enhancement Committee in October 2014.

(iii) That the aim of the programme would be to train highly motivated candidates from a range of financial and other backgrounds to become 21st Century practitioners in sustainability and sustainable investment related to retirement.

(iv) That the programme would initially be offered on a part-time (2 calendar year) only basis, with a non-standard annual start date of June.

(v) That the programme specification for the proposed MSc in Sustainable Retirement Investment and Management was provided in Appendix II of the Senate's paper.

(vi) That the programme had been through the normal approval process, including external review, and that the Master's Quality Committee had recommended that Senate approve the new programme with effect from June 2015.

Agreed: (i) That it was unclear whether the programme had been fully discussed with the Imperial College Business School and to what extent the Business School would be, or was expected to be, involved in the delivery of the programme.

(ii) That it was unclear whether the programme was appropriately positioned within the Faculty of Natural Sciences.

(iii) That it was unclear whether the proposal had been fully considered by, and was fully supported by, the Faculty of Natural Sciences.

Resolved: That Chair's action could be taken to approve the establishment of the new programme, subject to receiving assurances from the Faculty of Natural Sciences that the proposal had been through the relevant approval channels and was fully aligned with the Faculty's Learning and Teaching Strategy, and confirmation from the Imperial College Business School that there were no perceived conflicts of interest.

(2) Major Programme Modifications

(2.1) MSc in Data Science and Management (Imperial College Business School)

Considered and approved: On the recommendation of the Master's Quality Committee (Business, Engineering & Physical Sciences), the modifications to the currently suspended MSc in Data Science and Management and the launch of the programme under the new title of MSc in Business Analytics with effect from October 2015, as outlined in section 2.1 and Appendix III of the Senate's paper.

(2.2) Global MBA (Imperial College Business School)

Considered and approved: On the recommendation of the Master's Quality Committee (Business, Engineering & Physical Sciences), the changes to the curriculum and to the overseas assessment arrangements for the Global MBA programme, with effect from entry in January 2015, as outlined in section 2.2 and Appendix IV of the Senate's paper.

(2.3) Full-time MBA (Imperial College Business School)

Considered and approved: On the recommendation of the Master's Quality Committee (Business, Engineering & Physical Sciences), the modifications to the full-time MBA, including changing to a September start, with effect from entry in 2015, as outlined in section 2.3 and Appendix V of the Senate's paper.

(2.4) MRes in Biomedical Research (Department of Surgery and Cancer)

Considered and approved: (i) On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development), the introduction of a new stream in Molecular Basis of Human Disease within the MRes in Biomedical Research programme, with effect from October 2015, as outlined in section 2.4 of the Senate's paper.

(ii) On the recommendation of the Master's Quality Committee, the new degree title of MRes in Biomedical Research [Molecular Basis of Human Disease] to be awarded to students who successfully complete this new stream.

(2.5) MSc in Applied Biosciences and Biotechnology (Department of Life Sciences)

Considered and approved: On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development), the changes to the re-sit regulations for the MSc in Applied Biosciences and Biotechnology programme, retrospectively with effect from October 2014, as outlined in section 2.5 of the Senate's paper.

(2.6) MSc in Ecology, Evolution and Conservation (Department of Life Sciences)

Considered and approved: On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development), the changes to the re-sit regulations for the MSc in Ecology, Evolution and Conservation programme, retrospectively with effect from October 2014, as outlined in section 2.6 of the Senate's paper.

(2.7) MRes Grand Challenges in Ecosystems and the Environment (Department of Life Sciences)

Considered and approved: On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development), the change of the award title of the MRes in Grand Challenges in Ecosystems and the Environment to MRes in Ecosystem and Environmental Change with effect from entry in October 2015, as outlined in section 2.7 of the Senate's paper.

(3) Programme Suspensions and Re-openings

Considered and approved: (i) On the recommendation of the Master's Quality Committee (Business, Engineering & Physical Sciences), the suspension for one academic year of the MSc Petroleum Geophysics (Department of Earth Science and Engineering), with effect from entry in October 2015, as outlined in section 3.1 of the Senate's paper.

(ii) On the recommendation of the Master's Quality Committee (Business, Engineering & Physical Sciences), the suspension for one academic year of the MSc in Engineering Geology for Ground Models suite of programmes (Department of Civil and Environmental Engineering), with effect from entry in October 2015, as outlined in section 3.2 of the Senate's paper.

(iii) On the recommendation of the Master's Quality Committee (Business, Engineering & Physical Sciences), the further suspension for one academic year of the Actuarial Finance suite of programmes (Imperial College Business School), with effect from entry in October 2015, as outlined in section 3.3 of the Senate's paper.

(iv) On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and School of Professional Development), the re-opening of the MSc Cardiorespiratory Nursing programme (NHLL) for recruitment for entry in October 2015, as outlined in section 3.4 of the Senate's paper.

(4) Programme Withdrawals

Considered and approved: (i) On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and Professional Development), the permanent withdrawal of the Postgraduate Certificate, Diploma and MSc programme in Philanthropy (Department of Surgery and Cancer), with effect from entry in October 2015, as outlined in section 4.1 of the Senate's paper.

(ii) On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and Professional Development), the permanent withdrawal of the MSc in Surgical Science (Department of Surgery and Cancer), with effect from entry in October 2015, as outlined in section 4.2 of the Senate's paper.

(iii) On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and Professional Development), the permanent withdrawal of the MRes in Experimental Physiology and Drug Discovery (Department of Medicine), with effect from entry in October 2015, as outlined in section 4.3 of the Senate's paper.

(iv) On the recommendation of the Master's Quality Committee (Medicine, Life Sciences and Professional Development), the permanent withdrawal of all suspended Master's programmes within the Applied Ecology suite (Department of Life Sciences), with effect from entry in October 2015, as outlined in section 4.4 of the Senate's paper.

(5) Minor Modifications

Reported: That the Postgraduate Quality Committees had approved minor modifications to programmes, as outlined in section 5 of the Senate's paper.

(6) Appointment of External Examiners for 2014-2015

Reported: That the Master's Quality Committees had approved nominations for Board Chairs and External Examiners for the 2014-15 academic session.

1941 Prizes and Medals Established/Amended

Considered: Recommendations concerning new prizes as outlined in **Paper Senate/2014/37**.

Approved: (i) The establishment of eleven new prizes as outlined in items A-K of the Senate's paper.

(ii) The withdrawal of three existing prizes as outlined in items L-N of the Senate's paper.

1942 Staff Matters

Received: A Note by the Provost (**Paper Senate/2014/38**).

1943 Appointment of External Examiners in 2014-2015

Received: The names and affiliations of external examiners for summer school courses, undergraduate degrees and Master's degrees in 2014-2015 (**Paper Senate/2014/39**).

1944 Monitoring Statement for the 2013-14 Academic Year

Received: The College Monitoring Statement to the HEFCE for the 2013-14 Academic Year (**Paper Senate/2014/40**).

1945 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 candidates who have 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.

1946 Any Other Business

Reported: That, pursuant to relinquishing the role of Dean of the Faculty of Natural Sciences on 31 December 2014, Professor Dallman would no longer be a member of the Senate.

Recorded: The thanks of the Senate to Professor Dallman for serving as Faculty Dean since 2008 and for her contribution to the Senate during that time. The Senate wished Professor Dallman well in her new role as Associate Provost (Academic Partnerships).

Noted: That the Dean elect of the Faculty of Natural Sciences, Professor Tom Welton, would attend future meetings of the Senate as a Faculty Dean, and no longer as a Head of Department.

Reported: That Professor Jordan Nash, Head of the Department of Physics, had been appointed by the Heads of Department in the Faculty of Natural Sciences to be the Senate representative with effect from 1 January 2015 until September 2016.

1947 Date of Next Meeting

Reported: The next meeting of the Senate would take place on Wednesday 25 February 2015, in the Council Room, 170 Queen's Gate, starting at 3.00pm.