

# Imperial College London

## Faculty Education Committee (FEC) Faculty of Engineering

Wednesday 23 November 2016

### Confirmed Minutes

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#### Present

Dr Lorraine Craig (Chair)	Associate Dean (Learning & Teaching)
Prof Yun Xu	College Consul
Dr Giuliano Allegri	Aeronautics undergraduate representative
Prof Sergei Chernysenko	Aeronautics postgraduate representative
Prof Martyn Boutelle	Bioengineering undergraduate representative
Dr Darryl Overby	Bioengineering postgraduate representative
Prof Klaus Hellgardt	Chemical Engineering undergraduate representative
Dr Jason Hallett	Chemical Engineering postgraduate representative
Prof Bassam Izzuddin	Civil Engineering postgraduate representative
Dr Fariba Sadri	Computing postgraduate representative
Dr Andy Brand	Design Engineering postgraduate representative
Dr Mike Streule	Earth Science and Engineering undergraduate representative
Dr Lidia Lonergan	Earth Science and Engineering postgraduate representative
Dr Kristel Fobelets	Electrical Engineering undergraduate representative
Prof Andrew Holmes	Electrical Engineering postgraduate representative
Prof Jason Riley	Materials postgraduate/undergraduate representative
Dr Mike Bluck	Mechanical Engineering undergraduate representative
Richard Monk	Registry (representing Sophie White)
Dr Elizabeth Hauke	Centre for Culture, Languages and Communication
Luke McCrone	ICU Deputy President (Education)
Dr Phil Power (Secretary)	Education Manager

#### Apologies

Prof Jeff Magee	Dean
Prof Peter Cheung	Vice-Dean (Education)
Richard Martin	Faculty Operating Officer
Sophie White	Registry
Prof Marek Sergot	College Consul
Dr Mike Templeton	Civil Engineering undergraduate representative
Dr Tony Field	Computing undergraduate representative
Dr Lorenzo Picinali	Design Engineering undergraduate representative
Dr Martyn McLachlan	Materials undergraduate representative
Claudia Caravello	Student representative (UG) - CGCU
Beth Holman	Student representative (UG) - RSMU
Renee Tonkin	Student representative (PG) - GSU
Dr Daniel Mortlock	Director of Ancillary Mathematics

#### Observers

Robert Cashman	Management Trainee
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## **1 Welcome and Apologies**

The Chair, Dr Lorraine Craig, welcomed attendees to the meeting and apologies, as above, were noted. Dr Craig extended a particular welcome to new members of the committee.

## **2 Minutes of the previous meeting**

The committee received paper EEC.2016.41, the minutes of the September meeting. Phil Power proposed that the minutes be amended to reflect that the extensions approved for exchange programmes be for a period of five years. Subject to this amendment, the committee approved the minutes.

**Action: Phil Power**

## **3 Matters arising from the minutes of the previous meeting**

### **3.1 Action Tracker**

The committee noted paper EEC.2016.42, the action tracker.

It was noted that Registry had advised that the latest deadline for changes to minimum postgraduate entry requirements for the 2018/19 academic year would be May 2017.

### **3.2 Other matters arising**

There were none.

## **4 Schedule of Business for Future Meetings**

The committee noted paper EEC.2016.43, the Schedule of Business for Future Meetings.

Phil Power noted that the majority of agenda items are provided by Registry. It was noted that Departments are expected to bring their postgraduate monitoring update to the spring or summer meeting, depending on when Departments receive the necessary information from Registry.

**Action: Postgraduate representatives**

It was agreed that the Director of the Sustainable Energy Futures programme in the Energy Futures Lab be invited to join the committee. It was also agreed that the Director of the Molecular Science and Engineering programme in the Institute for Molecular Science and Engineering be invited to join the committee at an appropriate future point.

**Action: Phil Power**

## **5 Representation on Senate, QAEC and other committees**

The committee noted paper EEC.2016.44, detailing Faculty Representation on Senate, QAEC and other committees.

## **ITEMS FOR CONSIDERATION**

### **6 New Programme Proposals**

There were none.

### **7 Major Modifications to Existing Programmes and Changes to Schemes for Award of Honours**

There were none.

### **8 UG Annual Monitoring Reports [AMR] for 2015/16**

Dr Craig introduced this item, and thanked Directors of Undergraduate Studies for submitting these reports in advance of the meeting. The committee then considered papers EEC.2016.45 to EEC.2016.55.

The committee considered paper EEC.2016.46, the Annual Monitoring Report for Aeronautics. Dr Allegri noted the proposed actions for improving feedback, as the Department's lowest NSS score was in the assessment and feedback category. It was noted that there was no correlation between the Department's NSS and SOLE scores over the course of the academic year. It was also noted that participation in SOLE had decreased, and as a result, some fourth year undergraduates engaged only with NSS and not with SOLE. Dr Allegri also informed the committee of the Department's efforts to foster good working relationships between academic staff and students.

The committee considered paper EEC.2016.47, the Annual Monitoring Report for Bioengineering. Professor Boutelle noted that student satisfaction (as measured by NSS) had decreased. He noted that the Department was working to overcome atomisation in the student cohort by looking for ways to bring students together. It was reported that the Department has introduced a new monitoring system for student feedback.

The committee considered paper EEC.2016.48, the Annual Monitoring Report for Chemical Engineering. Professor Hellgardt referred to the Department's successful use of the Mastery concept and of its vertically integrated laboratories. He noted that the Department had published the findings of the use of this educational method, and undertook to make this available to the committee. He also noted the role of peer- and self-learning in the Department. Dr Craig noted that the Department had raised issues for the College to consider, namely timetabling issues, availability of central lecture halls, and possible subdivision of the first class category. Dr Craig noted that these matters would be investigated by the relevant College Departments.

The committee considered paper EEC.2016.49, the Annual Monitoring Report for Civil Engineering. Professor Izzuddin noted that the Department was looking into the high number of first class degrees which are awarded, and that it was aware of the need to include clearer justifications for marks for final year projects.

The committee considered paper EEC.2016.50, the Annual Monitoring Report for the Department of Computing. Dr Sadri noted that the mathematics courses within the Department had been reviewed to minimise the overlap of content on advanced courses. As a result of this, the mathematics courses have all now been brought together. Dr Craig noted that the Department had raised issues for the College to consider, namely availability of meeting and teaching rooms, the reliability of air conditioning systems, and the need for improvements to building services. Dr Craig noted that these matters would be investigated by the relevant College Departments.

The committee considered paper EEC.2016.51, the Annual Monitoring Report for the Dyson School of Design Engineering. Dr Brand spoke of how there is a professional relationship between students and staff in the School. It was noted that the School had been responsive in fine-tuning its programme as issues were identified. The effects of the School's space issues were also noted.

The committee considered paper EEC.2016.52, the Annual Monitoring Report for Electrical and Electronic Engineering. Dr Fobelets noted that there were particular issues with assessment and feedback in modules taught by other departments, and that communication was underway with the Business School and the Department of Computing to resolve this. Dr Fobelets noted that there was further work to be done on the timeliness of student feedback. The Department's efforts to support women in Engineering were noted.

The committee considered paper EEC.2016.53, the Annual Monitoring Report for Earth Science and Engineering. Dr Streule noted that the challenges students face with the transition from school to university had prompted the Department to establish a mentoring scheme for first year students, with fourth year undergraduates acting as mentors. The Department is using a framework which is also used in Mathematics, with the mentoring process being a formalised one. Dr Streule noted that the Department is currently reflecting on what to do with the synoptic papers for third and fourth year undergraduates.

The committee considered paper EEC.2016.54, the Annual Monitoring Report for Materials. Professor Riley noted that as the design study module had not been fit for purpose, this has now been redesigned following feedback from NSS and the external examiner. Dr Craig also noted the Department's wider issues surrounding space.

The committee considered paper EEC.2016.55, the Annual Monitoring Report for Mechanical Engineering. Dr Bluck raised the issue of the progression rates for women in the programme. The Department is looking for the source of any potential bias. Efforts so far have included equality and diversity training for staff and unconscious bias training for staff. The Department is encouraging staff to publicise the changes they make to their programmes to students. The Department is also reviewing its exam paper structure and the volume of coursework. Dr Bluck reported that there is more 1:1 personal tutoring in the Department and that a programme review is underway. It was noted that the Department had raised issues for the College to consider, namely support with the provision of student wellbeing services, issues with timetabling and available space, and the loss of the IDEAS space.

In summary, Dr Craig noted that there was substantial good practice, particularly in the areas of communication, the building of cohorts and cohort identities, and working with student societies.

The Assistant Registrar (Senate and Academic Review) thanked Departments for their engagement with this process, and noted that matters for the attention of other College services would be collated by the Registry and actioned.

## **9 Taught postgraduate Minimum Entry Requirements**

The committee considered paper EEC.2016.56, and recommended to QAEC that it approve the list of taught postgraduate minimum entry requirements for 2018/19 entry.

Fariba Sadri mentioned that there is information to be added relating to GRE requirements.

**Action: Fariba Sadri/Phil Power**

## **10 Exchange Partnerships**

### **10.1 University of Rome Tor Vergata, Italy**

The committee considered paper EEC.2016.57, a proposal to renew an exchange partnership with the University of Rome Tor Vergata, Italy, for students on the following programmes: MEng Electrical and Electronic Engineering with a Year Abroad and MEng Electrical and Information Engineering with a Year Abroad in the Department of Electrical and Electronic Engineering.

The committee approved the renewal of the exchange partnerships with effect from the 2017/18 academic year for a period of five years.

### **10.2 ETH Zurich, Switzerland**

The committee considered paper EEC.2016.58, a proposal to renew an exchange partnership with ETH Zurich, Switzerland, for students on the MEng Electrical and Electronic Engineering with a Year Abroad and MEng Electrical and Information Engineering with a Year Abroad in the Department of Electrical and Electronic Engineering.

It was noted that while the language of instruction at ETH Zurich is English, it is recommended that students participating in the exchange have German at Level 3. The committee was informed that students have previously participated in the exchange without this level of German ability, and have encountered difficulties with general living as a result.

The committee approved the renewal of the exchange partnership with effect from the 2017/18 academic year for a period of five years.

### **10.3 Massachusetts Institute of Technology, USA**

The committee considered paper EEC.2016.59, a proposal to renew an exchange partnership with the Massachusetts Institute of Technology, USA, for students on the MEng programmes in the Department of Materials for project exchanges.

The committee approved the renewal of the exchange partnership with effect from the 2017/18 academic year for a period of five years.

#### **10.4 Universitat de Barcelona, Spain**

The committee considered paper EEC.2016.60, a proposal to establish an exchange partnership with the Universitat de Barcelona, Spain, for students on the MSci Geology with a Year Abroad and MSci Geophysics with a Year Abroad programmes in the Department of Earth Science & Engineering.

The committee approved the establishment of the exchange partnership with effect from the 2017/18 academic year for a period of five years.

### **11 Survey Results**

#### **11.1 Postgraduate Taught Experience Survey (PTES) 2016 results for Dyson School of Design Engineering**

The committee considered paper EEC.2016.61, the 2016 PTES results for the Dyson School of Design Engineering.

Dr Brand introduced this item, noting that the results were comparable to those of the College overall but also that there was scope for improvement.

#### **11.2 Postgraduate Taught Experience Survey (PTES) 2016 Departmental Action Plans**

The committee considered papers EEC.2016.62 to EEC.2016.65, the departmental action plans for Chemical Engineering, Design Engineering, Materials, and the Energy Futures Lab.

Dr Hallett reported that for Chemical Engineering (paper EEC.2016.62), all items on the action plan have now been implemented, with the exception of changes to exam scheduling. It was noted that postgraduate students in the Department will soon have a social space. One item which has been successfully implemented is a restructure of the programme into fewer modules. This change was made in response to student feedback.

Dr Brand reported that for Design Engineering (paper EEC.2016.63), work was underway to make learning materials more useful for students. It was noted that in some areas student satisfaction was low, and that work was underway in partnership with the RCA to address this. The PTES results showed student dissatisfaction with the level of workload, although the Department held the view that student workload was at a manageable level. It was noted that the Department is reviewing its procedures for assessment and feedback.

Professor Riley reported that the Materials Department run an exit survey in addition to PTES, and items in the action plan (paper EEC.2016.64) were drawn from both sources. This has shown that students feel too many of their courses are shared with undergraduates. In response to this the Department has developed more courses which are only offered to its MSc students. It was also noted that the Department has invested in new physical resources for student use.

Dr Craig introduced the action plan for the Energy Futures Lab (paper EEC.2016.65). It was noted that the programme staff have undertaken to improve the feedback provided to students.

The committee noted that data for the Department of Earth Science and Engineering was not correctly sent to the Department, and that as a result, the action plan will be presented at the February meeting.

#### **Action: DPS, Earth Science and Engineering**

The committee noted that no action plans had been received from Aeronautics, Bioengineering, Civil and Environmental Engineering, Computing, Electrical and Electronic Engineering and Mechanical Engineering. It was requested that these action plans be available for the next meeting of the committee.

**Action: DPS, Aeronautics, Bioengineering, Civil and Environmental Engineering, Computing, Electrical and Electronic Engineering, Mechanical Engineering**

## **12 Accreditation Reports**

### **12.1 List of Accredited Programmes**

The committee considered paper EEC.2016.66, the list of the accredited programmes constructed by the Registry.

It was noted that many of the inaccuracies previously recorded had been corrected, and that the Engineering Council had updated their records accordingly. Despite this, it was noted that there were still inaccuracies surrounding BCS accreditation for some Computing programmes, and further issues still outstanding in Civil Engineering and Chemical Engineering. DUGS and DPS in these Departments will liaise with Phil Power and the Registry.

Notwithstanding the need to resolve these matters, the committee agreed to confirm the list of accredited programmes.

**Action: Phil Power**

### **12.2 IOM3 Accreditation visit to the Department of Earth Science and Engineering (March 2014)**

The committee considered paper EEC.2016.67, an accreditation visit report from IOM3 regarding the MSc Petroleum Engineering and MSc Metals and Energy Finance programmes in the Department of Earth Science and Engineering.

It was noted that there were no requirements from the Department following the visit. The delay in this report being presented to the committee was noted.

### **12.3 Energy Institute Accreditation visit to the Energy Futures Lab (March 2015)**

The committee considered paper EEC.2016.68, an accreditation visit report from the Energy Institute regarding the MSc Sustainable Energy Futures in the Energy Futures Lab. The committee noted the report.

## **13 External Examiner Appointments and Reports**

### **13.1 Outstanding External Examiner Appointments 2016/17**

The committee noted paper EEC.2016.69, a list of outstanding external examiner appointments for the academic year 2016/17.

It was noted that nominations were in progress or had been received from Electrical and Electronic Engineering (UG) and Bioengineering (PG).

**Action: Giuliano Allegri, Sergei Chernysenko, Bassam Izzuddin, Jason Hallett**

### **13.2 Outstanding UG External Examiner Reports 2015/16**

The committee noted paper EEC.2016.70, the list of outstanding undergraduate external examiner reports for the academic year 2015/16.

It was noted that the external examiner for Bioengineering had resigned their position. It was noted that they gave a verbal report at the relevant Exam Board meeting and that a written report was not expected.

It was noted that the external examiner for Chemical Engineering had been contacted, and had committed to submit a report as soon as possible.

**Action: Klaus Hellgardt**

It was noted that the report for Electronic Information Engineering had now been received.

## **14 Annual Report on Professional Skills Training for Master's Students for 2015/16**

The committee received paper EEC.2016.71. The committee requested that for future reports an executive summary be made available.

## **15. Any additional items to consider from the Faculty**

### **15.1 Proposed Modifications Policy**

The committee received and considered paper EEC.2016.72, the College's proposed Modifications Policy.

Dr Craig introduced this item. She noted that this had been discussed at the most recent meeting of the Faculty Teaching Committee. The unapproved minute of this discussion was included in the paper.

In the course of discussion, members of the committee raised the following observations:

- The draft policy was unclear as to which students it covered. The case of one year postgraduate courses was raised, with members feeling that the proposed policy would not allow them to reflect rapidly changing research activities in the degree programmes
- Indication that this represents a move away from the previous *30% change* rule. Members of the committee felt that the *30% change* rule had worked effectively in the past.
- Some changes are proposed to be outside of Departmental control which is unacceptable.
- There is a broader public interest which must be respected, alongside the student interest. It was felt that the training of professional engineers should account for their need to have appropriate subject knowledge and understanding. Any policy on modifications should respect the skill of the Programme Director(s) to adapt the content accordingly.
- There is a need to define the scope of what is meant by student consent.

The Assistant Registrar (Senate and Academic Review) noted that these requirements were the result of the need to maintain compliance with consumer law and the CMA. Members of the committee expressed grave concern that the proposed policy takes an excessively conservative position in relation to the CMA regulations and felt that College should be focusing more effort on lobbying government for a more appropriate consumer framework for Higher Education.

Luke McCrone, representing Imperial College Union, spoke of the Union's concern over what is meant by the term consent as used in the proposed policy. He also expressed a view that this proposed policy appeared to be inconsistent with broader efforts to improve education and the student experience at the College.

There was a discussion of what the committee felt to be an appropriate deadline for planned changes to programmes. For undergraduate programmes, this was felt to be following the Exam Board meetings which take place in July. For postgraduate taught programmes this was the October Exam Board meetings for modules which had yet to begin teaching and the following July for those which had.

It was felt that it is frequently the case that changes to academic programmes are made in the best interests of students. It was felt that an appropriate disclaimer should be added to prospectuses to indicate that the content of programmes may change if it is necessary to do so.

## **ITEMS TO NOTE**

### **16 Chair's Report**

The committee noted paper EEC.2016.73, detailing the action taken by the Chair on behalf of the committee since the last meeting.

### **17 List of active programmes**

The committee noted paper EEC.2016.74, the list of academic programmes for the academic year 2016/17.

**18 Annual Report of Master's programmes who applied for dispensation from anonymity at Exam Boards**

The committee noted paper EEC.2016.75, the report of Master's programmes who applied for dispensation from anonymity at Exam Boards for 2014/15 and 2015/16.

The committee also noted that no Master's programmes have yet applied for dispensation from anonymity at Exam Boards for 2016/17.

Representatives of the Department of Civil Engineering noted that they were likely to apply for dispensation again. Their view was that anonymity was not necessary when the number of students and staff involved with the programme is very small.

**19 Short Course Annual Monitoring of Delegate Numbers**

The committee noted paper EEC.2016.76, the results of the short course annual monitoring of delegate numbers exercise for the academic year 2015/16.

**20 Quality Assurance and Enhancement Committee (QAEC) Summary Report for Senate**

The committee noted paper EEC.2016.77, the summary report from the Quality Assurance and Enhancement Committee to the October 2016 meeting of Senate.

**21 Programmes Committee Minutes**

The committee noted paper EEC.2016.78, the September 2016 Programmes Committee minutes.

**22 FEC Reports**

The committee noted paper EEC.2016.79, the latest report from the Faculty of Natural Sciences Education Committee, and paper EEC.2016.80, the latest report from the School of Professional Development Education Committee.

**23 Any additional items to note from the Faculty**

The committee received paper EEC.2016.81, a proposed College policy on academic feedback. The committee also received paper EEC.2016.82, a proposed College policy on late coursework submission, and paper EEC.2016.83, an unapproved minute of the Faculty Teaching Committee summarising the discussion of earlier versions of these draft policies.

Lorraine Craig and Phil Power introduced these items. It was explained that they had been added to the agenda as late items following a request from the Secretary of the Quality Assurance and Enhancement Committee. It was noted that there was a consultation underway on the content of the late submission policy, which would close on 1<sup>st</sup> December. The committee expressed considerable concern at the limited time available to them to discuss these matters.

It was noted that the first version of the draft late coursework submission policy (paper EEC.2016.82) proposed a sliding scale. The new version proposed that coursework submitted late would be capped at the pass mark (40% for UG, 50% for PG) if submitted within 24 hours of the deadline, and receive a mark of zero thereafter.

Luke McCrone, representing Imperial College Union, expressed the view that while he was supportive of a change to the status quo, this proposal had progressed too quickly to allow for thorough student consultation. He hoped that the matter would return to a future meeting of the Quality Assurance and Enhancement Committee for further consideration. He informed the committee that Imperial College Union had conducted an online consultation in which those students who participated expressed a preference for an alternative to the current 'zero tolerance' policy. The committee acknowledged the limitations of this survey, and noted that students had only been asked to express a preference, and were not informed of the practical implications of alternative policies.



The committee noted that when the College moved from a former sliding scale approach to late coursework submission to the current policy, negative implications for students had been reduced.

A written submission had also been received by the student members of the committee who were unable to attend the meeting. Members present were made aware of the content of this submission, which made the following comments on the revised proposal:

- The representatives felt that the proposal would not address any of the problems experienced in many departments with feedback and assessment; namely those concerning inconsistency, timelines, and letter grade vs number grades.
- That there are already perceived inconsistencies across departments, and it was felt that a more complicated process was likely to worsen this.
- That this would risk students who are suffering being encouraged to submit their work late and accept the pass mark, instead of communicating with staff that they need more support.
- Students should be trained in working towards professional expectations, including working to deadlines and communicating with staff when problems arise in order to negate any individual or course issues surrounding assessment and feedback.
- That discussions with students suggested that efforts should focus on clarifying and making more transparent policies surrounding mitigating circumstances, as doing so would alleviate many of the issues surrounding assessment submission.

In relation to the specific matter of mitigating circumstances, members noted that discussions were underway within the College to unify processes surrounding mitigating circumstances.

The committee felt that Departments should still be able to set work with a due date of Friday. It was felt that there are valid educational reasons for operating this system.

The committee agreed that the current system for late coursework submission should be maintained, and that the current proposal should be seen in the context of the issues which occurred when a sliding scale penalty system was previously in operation.

The committee was broadly content with the Academic Feedback policy. Some specific suggestions were made for how the draft policy could be improved.

- For the first of the four Principles, it was felt that 'marks' should be substituted with 'grades', and that 'how far their performance might be improved' be substituted with 'how their performance might be improved'.
- The committee felt that the third Principle should be an undertaking to provide 'appropriate feedback', as it is not always possible to advise the form feedback will take in advance.
- The committee felt that the policy should distinguish between feedback on formative and summative work.
- The committee felt that the policy should include a definition of feedback.
- The committee felt that examinations should be outside the scope of this policy.

## **ANY OTHER BUSINESS**

### **24 Dates of Future Meetings**

Wednesday 22 February 2017

Wednesday 10 May 2017

Wednesday 27 September 2017 (Provisional)

Wednesday 22 November 2017 (Provisional)