Faculty Education Committee
Faculty of Engineering

Wednesday 28 February 2018
15:00 - 17:00
Room 909B, 9th Floor, Electrical Engineering Building

Minutes

1 Welcome and Apologies
Dr Craig welcomed members to the spring term meeting of the 2017/18 academic year, in particular the new members: Dr Errikos Levis (new DUGS in Aeronautics) and Lucy Heming (new Senior Assistant Registrar in the Registry Quality Assurance Team). Dr Craig also welcomed Komal Patel to the meeting, noting that Komal will be taking up the role of Education Projects Officer for the Faculty from the middle of April.

Present at the meeting were: Dr Lorraine Craig (Chair), Dr Errikos Levis, Prof Sergei Chernyshenko, Prof Klaus Hellgardt, Prof Jason Hallett, Dr Fariba Sadri, Dr Lorenzo Picinali, Dr Mike Streule, Prof Jason Riley, Dr Mike Bluck, Prof Graham Hughes, Dr Monika Pazio, Nick Burstow, Alex Luy, Alice Bennett, Yasin Cotur, Lucy Heming and Dr Phil Power (Secretary).

Apologies were received from: Prof Nigel Brandon, Prof Omar Matar, Prof Yun Xu, Prof Martyn Boutelle, Dr Robert Dickinson, Dr Mike Templeton, Prof Bassam Izzuddin, Dr Tony Field, Andy Brand, Prof Martin Blunt, Dr Kristel Fobelets, Prof Andrew Holmes, Dr Martyn McLachlan, Prof George Jackson, Dr Daniel Mortlock, Dr Elizabeth Hauke and Richard Martin.

Prof Mike Warner attended on behalf of Prof Martin Blunt and left after item 5.1.

2 Minutes from the Previous Meeting
The committee approved paper EEC.2017.76, the minutes from the meeting held on Wednesday 22 November 2017.

3 Matters Arising
3.1 Action Tracker
The committee noted paper EEC.2017.77, the action tracker. Two actions remained outstanding from the previous meeting.

Action EEC9/3 regarding the late submission of coursework policy required further appropriate input from the Registry, Lucy Heming was asked to take this matter forward as how to handle certain situations using the agreed policy remained unclear.

Action: Lucy Heming

Action EEC 9/7 concerned the provision of outcome and classification data split by other metrics. This matter had been included in the committee’s summary of undergraduate annual monitoring reports to QAEC. No further data had so far been received. Lucy Heming was asked to chase progress on this matter.

Action: Lucy Heming

3.2 Other matters arising
There were no other matters arising.

3.3 Updated committee membership
The committee noted paper EEC.2017.78, an updated list of members of the Faculty Education Committee following a number of changes since the start of the academic year.
ITEMS FOR CONSIDERATION

4  New Programme Proposals

4.1 BSc/MSci Earth and Planetary Science

The committee considered paper EEC.2017.79 and EEC.2017.80, a proposal from the Department of Earth Science and Engineering for a new BSc/MSci programme in Earth and Planetary Science.

Mike Warner described the purpose of the degree programme and the format in which it will be delivered, specifically noting that a number of the modules are already delivered as part of other degree programmes in the department. Mike noted that planetary science is a discipline which increasingly crosses over with traditional earth science, and that most of the new electives will be open to students following the existing geology and geophysics degree programmes. In addition Mike noted that currently more than half of new undergraduates cite planetary science as a reason to come to Imperial, and that while the department would expect a reduction in students applying to geology, geophysics or earth science programmes in the future it is anticipated the overall cohort would grow to 100 (from around 80) over time as the new degrees mature. Mike confirmed that changing between degree programmes in the early years would remain possible.

Mike specifically noted that the format of the degree assumed the changes proposed in paper EEC.2017.83 would be approved, and that the module outlines (paper EEC.2017.80) were presented in the format of the structure proposed in that paper.

Nick Burstow confirmed that student representatives had been actively engaged in developing the proposal and that the department had undertaken a student consultation process which represented best practice.

The committee agreed to recommend to the Programmes Committee that the degree be established and noted that Mike Warner would make certain minor changes to the documentation prior to submission.

4.2 MEng Computing (Security and Reliability)

The committee considered paper EEC.2017.81, a proposal from the Department of Computing for a new pathway within their MEng Computing degrees. The committee noted that this was a growth area with demand from employers growing, that all the modules which formed the programme were currently offered within the department and the proposed pathway would match one offered within the MSc Computing suite. Dr Sadri highlighted that there was enthusiasm for this proposal to be agreed quickly to meet an accreditation deadline set by GCHQ. The committee also noted that while the first students would be recruited to start in October 2019, it was proposed that current students be allowed to transfer to the programme from October 2018.

The committee agreed to recommend to the Programmes Committee that the pathway be established without delay.

4.3 MSc Computing (Artificial Intelligence and Machine Learning)

The committee considered paper EEC.2017.82, a proposal from the Department of Computing to combine two existing pathways (MSc Computing (Artificial Intelligence) and MSc Computing (Machine Learning)) to one pathway MSc Computing (Artificial Intelligence and Machine Learning) which would better reflect the current scientific climate. The changes would be enacted from October 2019 as applications were now underway for the 2018/19 academic year.

The committee noted that they had previously approved this proposal in May 2016, but that full programme specifications for all the current degree programmes were required before the proposal could progress to the Programmes Committee.

The committee agreed to recommend to the Programmes Committee that the pathway be established without delay.

5  Major Modifications to Existing Programmes and Changes to Schemes for Award of Honours

5.1 Undergraduate programmes in Geology, Geophysics and Earth Science

The committee considered two proposals from the Department of Earth Science and Engineering to make incremental major changes to the undergraduate programmes in Geology, Geophysics and Earth Science.

Proposal 1 (paper EEC.2017.83) concerned changes to the undergraduate programmes for new students from 2018. The committee noted that the proposed changes were a required part of the
proposal for an Earth and Planetary Science degree (paper EEC.2017.79). Mike Warner noted that
the proposal de-bundled the degree structure, casting it in a format which is consistent with a
modular degree structure.

The committee agreed to recommend the proposal to the Programmes Committee and congratulated
the department on the very high quality of their proposal.

Proposal 2 (paper EEC.2017.84) concerned applying the changes proposed in proposal 1 (paper
EEC.2017.83) to current students. Mike noted that an option was left in the proposal for existing
students to graduate with a 270 ECTS MSci degree if they wish, though the long term intention was
that all MSci degrees would be 240 ECTS.

The committee noted that student feedback on the proposal had been positive (confirmed by the
students’ union) and noted that students had questioned why the department must wait until the
2018/19 academic year to implement the changes. The committee felt that guidance be sought from
the Education Office as to how to handle situations where students become disillusioned after
consultation processes which discuss changes which will never impact them.

Action: Lorraine Craig

Nick Burstow again confirmed that student representatives had been actively engaged in developing
the proposal and reaffirmed that department had undertaken a student consultation process which
represented best practice.

The committee agreed to recommend the proposal to the Programmes Committee and thanked the
students’ union for their positive endorsement of the plan.

Papers EEC.2017.85 and EEC.2017.80 contained the associated programme specifications and
module outlines respectively.

5.2 Undergraduate programmes in Design Engineering
The committee considered papers ECC.2017.86 and EEC.2017.87, proposals from the Dyson
School of Design Engineering to make incremental major changes to the undergraduate programmes
in Design Engineering. Dr Lorenzo Picinali noted that the changes were to result of ongoing iteration
and review of the programme and input from the EDU had been received regarding the learning
outcomes. In particular Lorenzo noted that changes to modules in year 2 were intended to better
support the work placement between years 3 and 4.

The committee noted that the changes presented in the paper were the result of a commendable
process of ongoing iteration and review by the team in the school and addressed a desideratum by
the Programmes Committee in April 2017 for a review of the programme level learning objectives.

The committee agreed to recommend the proposal to the Programmes Committee and thanked Dr
Monika Pazio for her input.

5.3 Taught postgraduate programmes in Chemical Engineering
The committee considered paper ECC.2017.88, a proposal to change the structure of the four MSc
Advanced Chemical Engineering programmes with respect to the Environmental Engineering
module. The committee noted that the changes were the result of a number of years of consultation
with students, and this was the first of three anticipated changes to be presented over the coming
years.

The committee agreed to recommend the proposal to the Programmes Committee.

5.4 Undergraduate programmes in programmes in Chemical Engineering
The committee considered papers ECC.2017.89 to EEC.2017.91, a proposal to make incremental
major changes to the structure of year 1 of the undergraduate programmes. The proposal concerned
making changes the three modules.

The committee agreed to recommend the proposal to the Programmes Committee.

5.5 MEng Chemical Engineering – Fine Chemicals stream
The committee considered paper EEC.2017.92, a proposal to amend the credit volume of a module
for one student to accommodate a change made by the Department of Chemistry.

It was noted that Dr Craig had taken Chair’s Action to approve the proposal, and that a decision from
the Programmes Committee was awaited. The committee further noted that the student was unable
to begin the work until this proposal was approved.
5.6 Undergraduate programmes in programmes in Mechanical Engineering
The committee considered paper EEC.2017.93, a proposal to make incremental major changes to the structure of the undergraduate programmes. Mike Bluck noted that the proposal will provide better optionality in year 3 and extend professional engineering skills to year 3. Mike further noted that the proposal was the result of consultation with students and staff which had taken place over the past three years.

The committee agreed to recommend the proposal to the Programmes Committee.

5.7 Taught postgraduate programmes in Civil and Environmental Engineering
The committee considered paper EEC.2017.147, a proposal to make a major change to the structure of the MSc Engineering Fluid Mechanics for the offshore, coastal and built environment programme. The committee agreed to recommend the proposal to the Programmes Committee.

6 Programme suspensions and withdrawals
The committee considered paper EEC.2017.94, a proposal from the Department of Chemical Engineering to withdraw the PGCert/PGDip/MSc Process Automation, Instrumentation and Control.

It was noted that given the part time nature of the programmes it would take some time for the students to complete and work is being undertaken to establish the length of time for which the department must remain to offer the taught modules. It was also noted that no new students would be accepted to the programmes from now on.

The committee agreed to recommend to the Programmes Committee that the programmes be closed to new entrants and withdrawn in due course.

7 Exchange Partnerships

7.1 MIT, USA
The committee considered paper EEC.2017.95, a proposal to establish an exchange partnership with MIT, USA, for students on various programmes across the Faculties of Engineering and Natural Sciences for a period of five years. Nick Burstow noted the students' union's support for this exchange.

The committee agreed to recommend establishment of the exchange agreement.

7.2 University of California, USA
The committee considered paper EEC.2017.96, a proposal to renew an exchange partnership with the University of California, USA, for students in various departments in the Faculty of Engineering for a period of five years.

The committee agreed to recommend renewal of the exchange agreement.

7.3 University of Queensland, Australia
The committee considered paper EEC.2017.97, a proposal to renew an exchange partnership with the University of Queensland, Australia, for students on the MEng Chemical Engineering with a Year Abroad in the Department of Chemical Engineering for a period of five years.

The committee agreed to recommend renewal of the exchange agreement.

7.4 ENSIACET, INP Toulouse, France
The committee considered paper EEC.2017.98, a proposal to renew an exchange partnership with ENSIACET, INP Toulouse, France, for students on the MEng Chemical Engineering with a Year Abroad in the Department of Chemical Engineering for a period of five years.

The committee agreed to recommend renewal of the exchange agreement.

7.5 RWTH Aachen, Germany
The committee considered paper EEC.2017.99, a proposal to renew an exchange partnership with RWTH Aachen, Germany, for students on the MEng Chemical Engineering with a Year Abroad in the Department of Chemical Engineering for a period of five years.

The committee agreed to recommend renewal of the exchange agreement.

7.6 TU Delft, The Netherlands
The committee considered paper EEC.2017.100, a proposal to renew an exchange partnership with TU Delft, The Netherlands, for students on the MEng Chemical Engineering with a Year Abroad in the Department of Chemical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 7.7 University of Valladolid, Spain
The committee considered paper EEC.2017.101, a proposal to renew an exchange partnership with the University of Valladolid, Spain, for students on the MEng Chemical Engineering with a Year Abroad in the Department of Chemical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 7.8 KTH Stockholm, Sweden
The committee considered paper EEC.2017.102, a proposal to renew an exchange partnership with KTH Stockholm, Sweden, for students on the MEng Chemical Engineering with a Year Abroad in the Department of Chemical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 7.9 University of Tokyo
The committee considered paper EEC.2017.103, a proposal to renew an exchange partnership for student projects with University of Tokyo (Graduate School of Frontier Sciences), for students on the MSc Advanced Chemical Engineering in the Department of Chemical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 7.10 RWTH Aachen, Germany
The committee considered paper EEC.2017.148, a proposal to renew an exchange partnership with RWTH Aachen, Germany, for students on the MEng Mechanical Engineering with a Year Abroad in the Department of Mechanical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 7.11 TU Delft, The Netherlands
The committee considered paper EEC.2017.149, a proposal to renew an exchange partnership with TU Delft, The Netherlands, for students on the MEng Mechanical Engineering with a Year Abroad in the Department of Mechanical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 7.12 Ecole Centrale de Lyon, France
The committee considered paper EEC.2017.150, a proposal to renew an exchange partnership with the Ecole Centrale de Lyon, France, for students on the MEng Mechanical Engineering with a Year Abroad in the Department of Mechanical Engineering for a period of five years.
The committee agreed to recommend renewal of the exchange agreement.

### 8 UG Annual Monitoring Reports [AMR] for 2015/16
The committee noted paper EEC.2017.104, the faculty summary of the undergraduate Annual Monitoring Reports which had been submitted to QAEC.

### 9 Taught Postgraduate Entry Requirements
The committee considered paper EEC.2017.105, the taught postgraduate entry requirements for the 2019/20 academic year. Members of the committee acknowledged that this meeting would be the last opportunity of make changes.
The committee approved the paper.

### 10 Admissions End of Cycle Reports 2017/18
The committee noted papers EEC.2017.106, EEC.2017.107 and EEC.2017.108, the admissions end of cycle reports for 2017/18.

### 11 Admissions statistics 2018/19
The committee noted papers EEC.2017.109, EEC.2017.110 and EEC.2017.111, the latest admissions statistics for 2018/19.

### 12 SOLE
The committee considered paper EEC.2017.112, the results of the autumn term UG SOLE lecturer and module surveys. Members noted that the results were encouraging.
The committee also considered paper EEC.2017.113, the results of the autumn term PG SOLE lecturer
and module surveys. Reflecting on both reports the committee again noted that the format of the reports was relatively poor for an institution which excels at the presentation of numerical evidence and potentially hindered appropriate consideration of the data.

The committee concluded that this matter required rectifying as a matter of urgency, Lucy Heming was asked to take this matter forward and report back to the committee with a revised report format.

**Action: Lucy Heming**

13 **Postgraduate Research Experience Survey**
The committee considered paper EEC.2017.114, the results of the most recent Postgraduate Research Experience Survey. Members noted that while there was not specific representation from Directors of Postgraduate Studies with responsibility for research students on the committee, these colleagues had met in October to discuss the results.

The committee also considered paper EEC.2017.115, the response to the survey results from the students’ union. Members felt the issues highlighted were appropriate and felt the Graduate School had a role in ensuring they were acted upon.

Dr Craig noted that the Faculty Education Committee (in lieu of a specific faculty committee considering matters concerning PhD students) were required to formally consider the action plan from each department, and that a summary paper would be produced for the next meeting of the Postgraduate Research Quality Committee in April.

The committee thanked those colleagues responsible for their hard work on the action plans and approved them all. Paper references being:

- Aeronautics – EEC.2017.151
- Bioengineering - EEC.2017.116
- Chemical Engineering - EEC.2017.117
- Civil and Environmental Engineering - EEC.2017.118
- Computing EEC.2017.119
- Design Engineering - EEC.2017.152
- Electrical and Electronic Engineering – EEC.2017.120 (notes) and EEC.2017.153
- Earth Science and Engineering - EEC.2017.121
- Materials - EEC.2017.122
- Mechanical Engineering - EEC.2017.123

14 **Accreditation Visit Reports**

14.1 **Institution of Mechanical Engineers (May 2017) – Design Engineering**
The committee considered paper EEC.2017.124, a visitation report from the Institution of Mechanical Engineers regarding the MEng Design Engineering in the Dyson School of Design Engineering.

The institution had provided useful reflections on the degree programme and have recommended a return visit to consider accrediting the degree after the graduation of the first cohort in 2019.

14.2 **Institution of Mechanical Engineers (May 2017) – Mechanical Engineering**
The committee considered paper EEC.2017.124, an accreditation visit report from the Institution of Mechanical Engineers regarding the degree programmes in the Department of Mechanical Engineering. The institution had agreed to accredit the undergraduate degrees at CEng level for a period of five years, for intakes up to and including 2021. Mike Bluck noted that some of the feedback received from the IMechE had informed the changes proposed in paper EEC.2017.93.

The committee noted that at this point the MSc Advanced Mechanical Engineering will not be accredited as the degree structure does not mandate students to study core content required by the IMechE. The department will continue to support individual students with their applications to the IMechE if they have studied the appropriate elective modules.

15 **External Examiner Appointments and Reports**

15.1 **Outstanding external examiner appointments 2017/18**
The committee noted paper EEC.2017.126, the list of outstanding external examiner appointments for 2017/18.
Representatives from the departments concerned were asked to action these appointments as a matter of urgency.

**Action:** Tony Field, Mike Streule, Martyn Boutelle, Errikos Levis, Martyn McLachlan, Andy Brand, Sergei Chernyshenko, Jason Hallett, Robert Dickinson, Bassam Izzuddin, Jason Riley, Ulrich Hansen and Martin Blunt

### 15.2 Outstanding external examiner reports 2016/17
The committee noted paper EEC.2017.127, the list of outstanding external examiner reports for 2016/17.

Representatives from the departments concerned were asked to chase the external examiners for the reports as a matter of urgency.

**Action:** Klaus Hellgardt, Errikos Levis, Kristel Fobelets, Robert Dickinson, Martin Blunt and Fariba Sadri

### 15.3 Outstanding external examiner appointments 2018/19
The committee noted paper EEC.2017.128, the list of external examiner appointments due to expire before the 2018/19 academic year.

### 16 Any additional items to consider from the Faculty

#### 16.1 Student casework policies and procedures
The committee considered paper EEC.2017.129, an extensive submission by the Registry containing draft versions of revised College policies and procedures: Academic Misconduct, Academic Appeals, Student Complaints and Mitigating Circumstances. The committee noted that Martyn Boutelle had been actively involved in the working groups which have developed these proposals, and the committee recorded its thanks to him.

In general the committee reflected that these documents had moved forward in a positive way, but certain refinements were required before they could be finalized and presented to QAEC, and were keen to see revised drafts ahead of their final consideration. In particular the committee noted that the word course is often used interchangeably to (it is assumed) refer to either degree programme or a module.

**Academic misconduct:** The committee noted that the flow chart assumes that a misconduct activity will start as a minor offence, but this is not exclusively the case and asked for the chart to be amended to reflect this. The committee also felt that the range of penalties was too limited, with limited scope for dealing with a misconduct associated to one assessment (which contributes to a module), with the only options currently being awarding a pass mark to the piece of work or zero to the whole module (appendix one, section 1c); the committee did however note that paragraph 21 provides options for cases of minor plagiarism. Members felt strongly that a greater range of penalties should be available within the procedure (in appendix one), in particular members felt that the table in appendix one (page 15) required further refinement. The committee also noted that paragraph 40 contains a circular reference, and that certain elements of paragraphs 51 to 67 appear to repeat themselves.

**Student complaints:** Representatives of the students’ union noted that they had provided feedback on this procedure at the FoNS and Business School FEC meetings, so were confident their comments would be incorporated in the final draft via presented to QAEC. The committee had no specific comments on the procedure and were content with it, but felt that having a simplified flow chart may simply confuse readers as to what the process actually is. The committee noted however that it may be useful to add ICT as a category in paragraph 2.10 as a key service provider to students, and that reference should be made in the procedure as to how complaints relating to services outsourced by the College to third parties will be handled. In addition members noted that references to the College Secretary and Registrar in paragraphs 2.17, 2.19 and 2.20 be updated to ensure consistency.

**Academic appeals:** Broadly the committee were satisfied with the proposed procedure, specifically members noted that paragraph 2.2 should include a reference to the reasons a student may be requested to withdraw. Representatives of certain departments expressed a view that there should be a stage in the process to allow departments to filter requests for appeals and that the various timelines were ambitious; these views were not universal.
In relation to paragraph 6.3 the committee queried whether “registered medical practitioner” implied a practitioner from the UK, especially in the context of the second sentence in the paragraph which could necessitate diagnosis or assessment anywhere globally.

In relation to paragraph 7.2 the committee felt that an additional sentence be added to clarify to whom the sealed information should be passed – the feeling was that this was an appropriate task for the Senior Tutor or Postgraduate Tutor.

With respect to paragraph 8.1 concerning independence of panel members from individual students, while this may be possible if a faculty level panel were constituted it was considered practically impossible at a department level and the paragraph should be redrafted, potentially to ensure that any specific knowledge of a student case was declared to other panel members.

In relation to paragraph 5.1, the wording requires a little more clarify with respect to what supporting evidence would be required for illnesses lasting less than five days.

In relation to paragraph 8.4, specifically for handling requests for mitigating circumstances relating to ongoing (and relatively minor) items of coursework, such as granting a late submission deadline, the committee felt that constituting a panel of three members was unnecessary, placing additional unnecessary administrative load the panel members and slowing down the overall decision process for students. On a practical basis a Board would need to meet at least once a week in certain departments, this was considered unworkable. The panel felt strongly that such decisions should be delegated to one member of staff in a department/programme, and a designated deputy should be appointed to cover leave, research commitments and overseas travel. On a practical basis it was felt that decisions need to be made more swiftly than five days (which was considered unworkable if a panel were to be used), but felt that some more work was needed to define what response was required to be given to the student within this timeframe. Overall the committee felt that more consideration need to be given to how the procedure would operate on a practical level.
In relation to paragraph 8.6 the committee noted there appear to be only two outcomes “defer” or “allow late submission”, these options were considered inappropriate when handling the cases of finalists and felt that further thought should be given to this paragraph. In addition, representatives of certain departments also felt that in general paragraph 8.6 should include a third option - for the Mitigating Circumstances Board to waive the need for a student to participate in any given assessment.

ITEMS TO NOTE

17 Chair’s Report
The committee noted paper EEC.2017.130, the actions taken by the Chair on behalf of the committee since the last meeting, together with papers EEC.2017.131 to EEC.2017.135 the various papers to support the actions.

18 Senate
The committee noted papers EEC.2017.136 to EEC.2017.138, the minutes from the three most recent meetings of Senate.

19 QAEC summary report for Senate
The committee noted papers EEC.2017.139 to EEC.2017.141, the QAEC summary report to Senate from the three most recent meetings.

20 Programmes Committee report for QAEC
The committee noted papers EEC.2017.142 and EEC.2017.143, the reports from the Programmes Committee to the two most recent meetings of the Quality Assurance and Enhancement Committee.

21 Faculty Education Committee Minutes
The committee noted papers EEC.2017.144 and EEC.2017.145, the minutes of the Faculty Education Committees for Natural Sciences and the School of Professional Development respectively.

22 Any additional items to note from the Faculty
There were none.

ANY OTHER BUSINESS

23 Dates of Future Meetings
Wednesday 16 May 2018
Wednesday 26 September 2018
Wednesday 7 November 2018
Wednesday 28 November 2018
Wednesday 9 January 2019
Wednesday 30 January 2019
Wednesday 27 February 2019
Wednesday 1 May 2019

RESERVED BUSINESS

24 Special cases for admission
The committee noted paper EEC.2017.146 (which had been circulated to members by email), a report of special cases considered for admission.