

Programmes Committee (PC)

Tuesday 16 October 2018

10:00-13:00 Room 408, 4th Floor, Central Library.

Present

Dr Mike Tennant (Deputy Chair) Dr Lorraine Craig, Ms Lucy Heming, Ms Kate Ippolito, Mr Alejandro Luy, Professor Jonathan Mestel, Professor Sue Smith, Dr Roberto Trotta, Dr Vijay Tymms, Ms Men-Yeut Wong (Secretary) and Ms Betty Yue.

In Attendance

Dr Fariba Sadri, Professor Nick Buenfeld and Professor Chris Cheeseman.

Apologies

Dr Edgar Meyer (Chair), Ms Ute Thiermann, Mr Rob Tomkies and Ms Judith Webster.

1 Welcome and Apologies

In the absence of the Chair, the Committee noted that Dr Mike Tennant (Deputy Chair) would be acting as Chair for the meeting.

The Chair welcomed attendees to the meeting and apologies, as above, were noted.

2 PC.2018.11 Minutes of the Previous Meeting

The minutes of the previous meeting held on Tuesday 11 September 2018 were approved as an accurate record.

3 Matters Arising

It was agreed that the Programmes Committee meetings scheduled for February and March 2019 would need to be full day events in order to accommodate the large volume of approval documentation as part of Curriculum Review. The two meetings will be held off-campus within South Kensington and members were asked to confirm their availability for both dates so that a venue could be arranged.

4 Curriculum Review Updates

The Committee received updates from members of the Committee (who also act as Curriculum Review Reference Panel Chairs) with the progress of their panels. It was noted that both the Faculty of Engineering and Faculty of Natural Sciences Education Committees would be considering the Curriculum Review Proposal Form, the programme specification and an exemplar module outline of each UG programme at the next meeting of their Faculty Education Committee.

ITEMS FOR CONSIDERATION

6 New Programme Proposals

6.1 PC.2018.12 MSc Artificial Intelligence

6.1.1 The Committee considered a proposal from the Department of Computing to introduce the above programme with effect from October 2019.

6.1.2 The Committee welcomed the Academic Lead Dr Fariba Sadri who had been invited to present the new programme proposal to the Committee.

6.1.3 The programme had been conceptualised following an independent report "Growing the Artificial Intelligence industry in the UK" which was published by the British Government. The report stated that "Skilled experts are needed to develop AI and they are in short supply. To develop more AI the UK will need a larger workforce with deep AI expertise, and more

development of lower level skills to work with AI". "The UK has an exceptional record in key AI research. Growing the UK's AI capability into the future will involve building on this with more research on AI in different application areas, and coordinating research capabilities". It was noted that one of the recommendations of the report had been that "Universities should explore with employers and students the potential demand for one-year conversion Masters degrees in AI for graduates in subjects other than computing and data science".

6.1.4 The new programme proposed is targeted towards graduates of disciplines with a strong focus in mathematics such as Mathematics, Physics and some Engineering subjects. The programme will equip students with a high level of training in AI knowledge, skills and techniques and apply these across a broad range of science and engineering applications. This will be accomplished by taught modules that offer a firm background training in AI, complemented by modules with specific focus on application of these techniques, making use of real world applications and exemplified from research and industry.

6.1.5 The Committee agreed upon the following recommendations:

- The Committee noted that the programme was made up of 5 core modules with 5 elective modules, a comment from the industry external raised a concern that this ratio of core to elective was too low and queried why students would be able to take half of their programme as electives. The Programmes Committee heard in response that this approach was common across the Computing Masters programmes and rules would be applied to the elective module offering with the use of pre/co-requisite rules, effectively creating routes through the programme for students pursuing particular modules. It was noted there was little objection to changing 'Deep Learning' to a core module; however, it was anticipated the majority of students would choose to take this anyway if it was still an elective module. It was recommended it is made more evident in the programme specification (programme overview section) that there would be themes and grouping of specific modules;
- The Committee wish to seek assurances from the Department that the number of potential project supervisors and project proposal will be sustainable considering that the initial ratio of four teaching staff to a projected student intake of 60 would result in each supervising 15 projects each;
- Discussions were held around the high percentage of exams throughout the programme; it was acknowledged the programme team would explore assessment loading and methodology in the upcoming Curriculum Review process but while this was welcomed, the Committee recommended that the programme team review the number of exams incorporated into the programme at the point of approval rather than wait for Curriculum Review;
- It was noted that there is an online module in 'Maths for Machine Learning' offered in joint collaboration by the Faculty of Engineering and Natural Sciences (led by Professor David Dye) and queried if the module could share content with the 'Maths for Machine Learning' module within the new programme proposal. However, the programme lead explained that the online module would not provide the requisite level of content required on the MSc Artificial Intelligence. It was recommended that the programme team consider renaming the module to 'Advanced Maths for Machine Learning' or 'Maths for Advanced Machine Learning' etc. to distinguish it;
- The Department should make assurances that they are able to provide the needed number of licenses for all software listed within the software requirements for students, and to clarify if the student or the Department pay for the computer and monitor equipment required. This cost should be made clear in the Programme Specification;
- Discussions around the admissions process were held. The Committee agreed that the strategy for admitting students required review given the need to select the best suited students for the programme while ensuring the diversity of the student cohort. As Programmes Committee would not be the correct forum, the Committee strongly recommend that this be raised via an appropriate network, such as the Admissions Network and/or for the Programme Team to make contact with the Director of Admissions to review the current selection approach;

- The Committee agreed that the learning outcomes of some of the modules were not of a Level 7 FHEQ (Frameworks for Higher Education Qualifications) standard and that the outcomes should better reflect the content that is being taught to ensure that students can clearly understand what they should be able to understand or demonstrate upon completion of the module. Discussions held by the Committee noted that the current outcomes could be further developed. The programme team should work with the Quality Assurance team and the Educational Development Unit to establish a set of exemplar modules for the 2019 intake of students;
- The Department should consider the comments made by the External Academic and Industry reviewers and respond to their comments accordingly when addressing the recommendations made above.

6.1.6 The Committee agreed to recommend the proposal to the Quality Assurance & Enhancement Committee for approval with effect from October 2019 subject to the above recommendations.

6.2 PC.2018.13 MSc Advanced Materials for Sustainable Infrastructure

6.2.1 The Committee considered a proposal from the Department of Civil and Environmental Engineering to introduce the above programme with effect from October 2019.

6.2.2 The Committee welcomed the Head of Department, Professor Nick Buenfeld and the Academic Lead, Professor Chris Cheeseman who had been invited to present the new programme proposal to the Committee.

6.2.3 The Department of Civil and Environmental Engineering currently offers a suite of MSc programmes which covers most civil engineering disciplines. The Department reported that there were exciting and substantial research and educational opportunities in relation to Infrastructure Materials and that in today's society there is a need for materials with enhanced technical performance, longer life, and reduced greenhouse gas footprint, which will be more easily recycled and will contribute to lower initial, and whole-life, cost infrastructure.

6.2.4 The proposed programme aims to educate future engineers in the field of Infrastructure Materials, it allows students to observe and perform experiments in the department's new world-class Advanced Infrastructure Materials Laboratory. The programme will provide students with the opportunity to undertake research projects with leading academics.

6.2.5 The Committee agreed upon the following recommendations:

- The Committee agreed that the learning outcomes of the modules did not match the level of language used for the Programme Learning Outcomes and were not of a Level 7 FHEQ standard. It was also agreed that the outcomes should better reflect the content that is being taught to ensure that it is clear to students what they should be able to understand or demonstrate upon completion of the module. Discussions held by the Committee noted that the work to date had been focussed on the programme learning outcomes and there was agreement the current module learning outcomes could be further developed. The programme team should work with the Quality Assurance Team and the Educational Development Unit to establish a set of exemplar modules for the 2019 intake of students.
- The Committee acknowledged the rationale given for an all-core programme but recommended that the programme team better illustrate how student choice will be encouraged, for example, through assessment questions (for example, 'you can choose this to answer question a/b/c/d....') and the project module. The Committee noted the intention to develop further elective modules in the future in response to research being undertaken in the department and recommended the Head of Department provide a statement assuring that student choice would be considered as part of the upcoming Curriculum Review;
- Discussions were held around the high percentage of written exams across the modules and volume of assessment (exams and coursework) set throughout the programme. The Committee was concerned both that the form of assessment (exams) would not allow

students to demonstrate the practical application of their knowledge and that the assessment load was high. It is recommended that the Head of Department provide a statement to make assurances that these issues will be addressed (specifically for the new programme) during Curriculum Review and that consideration be given in better aligning the assessment to the revised learning outcomes (see first bullet point) as part of the approval process where possible;

- The Deputy President (Education) suggested that the title of the programme did not match the content of the programme taught, for example the title assumes that the programme would embed more content around sustainability in the modules. The programme team are advised to review the suitability of the programme title or review the language used in the modules and programme specification to reflect that 'sustainability' is embedded throughout the modules;
- The Department should consider the comments made by the External Academic and Industry reviewers and respond to their comments accordingly when addressing the recommendations made above.

7 Curriculum Review

7.1 PC.2018.14 Imperial Horizons

7.1.1 The Committee considered the redesigned Imperial Horizons Programme, it was noted that the programme team could submit their proposal on the old templates as the forms had been completed prior to the College publishing the new Curriculum Review forms.

7.1.2 The Director of Centre for Languages, Culture and Communication informed members that the Curriculum Review process allowed the Centre to evaluate the last six years of the Horizons provision. The changes made to the programme aims to align the future programme with the new modular structure; to strengthen further its alignments with the Learning and Teaching Strategy aims and to enable an expansion of student choice in view of the future I-Explore provision.

7.1.3 The Committee agreed upon the following recommendations:

- That the Centre work with the Quality assurance and Enhancement Team to transfer the module outlines onto the new Curriculum Review templates, it was acknowledged that the College had introduced the new templates after the Centre had redesigned their module offering;
- That the Centre manage students' expectations of the extra workload that may be included if they choose to take a Horizons module as they have all been weighted at 7.5 ECTS when the College expectation is that all undergraduate programmes of study must include a 5 ECTS credit space to take one co-curricular module.

7.1.4 The Committee recommends that the Quality Assurance and Enhancement Committee approve the proposal with effect from October 2019.

7.2 PC.2018.15 BSc Medical Sciences with Specialism

7.2.1 The Committee considered the redesigned BSc Medical Sciences with Specialism programmes, it was noted that the programmes team had introduced 4 new pathways:

- Frontiers in Cancer
- Surgical innovation and technology
- Anaesthesia & Intensive Care
- Remote Medicine

7.2.2 The programme team had proposed a new BSc structure and assessment strategy what will be applied to all current pathways. The proposed programme has undergone staff and student consultation with iterative development. The emphasis of the new programme structure is on

the development and application of fundamental knowledge and on the skills and attitudes required for research. The Committee noted that the redesign would create a cultural shift for the BSc Medical Sciences programme team and students which will require significant structural changes.

- 7.2.3 The programme learning outcomes have been standardised and include a core set of outcomes for all pathways. The Standardised Assessment Strategy has provided the platform for change and has allowed the team to remove the previous strategy of examinations with a more innovative method of assessment. The programme team had worked with academics to revise the taught content, delivery and assessment.
- 7.2.4 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee for approval with effect from October 2019.
- 7.2.5 The Committee noted that the programme team had presented a proposal which had been exemplary and illustrated a progressive and forwards thinking programme. It was also noted that the removal of all examinations throughout the programme and the Committee would also be grateful if the programme team could share best practice with other teams across College to demonstrate how this strategy had been communicated through all modules. The Deputy President (Education) informed the Committee that there had been good student consultation through the redesign of the programme.

7 Major Modifications to Existing Programmes

7.1 PC.2018.16 Executive MBA

- 7.1.1 The Committee considered a proposal from the Business School to make changes to the above programme with effect from February 2019. The changes proposed aims to strengthen the programme content against its new marketing ethos of “Executive MBS for a Technology Driven World”, and to be considerate of students’ life balance as the programme tends to recruit executives who operate in high pressured environments balancing work, life and study.
- 7.1.2 The Business School proposed a request to withdraw the core BS0231 USA Residency module; to allow students to take an additional elective which could include a field-trip; and to make changes to the module weighting to accommodate these changes.
- 7.1.3 The Committee agreed upon the following recommendations:
- That the paperwork should be updated to reflect the withdrawal of the module BS0231 USA Residency (specifically in the module weightings table), and the weighting of each elective would be 20% of the elective component;
 - That the School be mindful of the difficulties students may face when obtaining a visa to the USA;
 - That the School provide the communication drafted for applicants and offer-holders regarding the changes to the programme to the Quality Assurance Team. This will then be approved by Student Marketing and the Admissions team before being sent to students.

- 7.1.3 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee for approval with effect from February 2019.

7.2 PC.2018.18 MA MSc Innovation Design Engineering

- 7.2.1 The Committee considered a proposal from the Dyson School of Engineering to make retrospective changes to the above programme with effect from October 2018. MA MSc Innovation Design Engineering is run jointly by Imperial College London and the Royal College of Art (RCA). The RCA recently communicated an intent to better represent the learning experiences of their Masters programmes. Part of the changes proposed had been to divide

programmes (including the joint programmes with Imperial College) into formal modular structures with explicit sets of intended learning outcomes and formative assessments.

- 7.2.2 The proposed modifications were initiated by RCA and have been developed in consultation with programme leaders at both institutions.
- 7.2.3 The Committee noted that the proposal had been submitted as a minor modification and advised that the proposal should be reclassified to a Major Modification as the changes proposed are at a programme level and are to be effective with immediate action. It was also acknowledged that the urgency of the changes proposed were due to communications received from the RCA with the intention to better represent the learning experiences of their MA programmes. It should be noted that future communications should be made within the modification deadlines as specified by Imperial College.
- 7.2.4 The Committee agreed upon the following recommendations:
- That the Department inform applicants, offer-holders and affected students regarding the changes to the programme;
 - That the Department provide the communication drafted for applicants and offer-holders regarding the changes to the programme to the Quality Assurance Team. This will then be approved by Student Marketing and the Admissions team before being sent to students.
- 7.2.5 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee for approval with effect from October 2018.

8 Minor Modifications to Existing Programmes

8.1 PC.2018.17 UG Aeronautical Engineering

- 8.1.1 The Committee considered a proposal from the Department of Aeronautics to make minor changes to the following modules: AE1-103 Computing; AE1-111 Thermodynamics; AE2-202 Numerical Analysis; AE2-214 Experimental Methods; and AE3-418 L3 Applications with effect from October 2018.
- 8.1.2 The proposed changes to AE1-103 Computing are as a result of discussions with students and members of the programmes Industrial Advisory Board, as well as student comments received from NSS 2018. The changes to AE1-111 Thermodynamics are meant to give students credit for engaging with progress tests throughout the modules. The changes in weighting of the assessments within AE2-214 Experimental Methods is required such that the weighting better reflect the student effort in completing them. The assessment method for AE3-418 L3 Applications is modified to address student complaints regarding extraneous workload in the third year, as seen in the 2017 and 2018 NSS and SOLE surveys, and a perceived over-assessment of presentation skills within this year of study.
- 8.1.3 The Committee noted the late changes requested and agreed that the changes would be made in the best interest of the students in response to student comments received and have been made in consultation with the programmes external examiners and industry representatives.
- 8.1.4 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee for approval with immediate effect.

9 Short Courses and Summer Schools

9.1 PC.2018.19 Climate Change: Financial Risks and Opportunities (Online MOOC)

- 9.1.1 The Committee considered a proposal from the Business School to introduce a series of four online short courses with effect from October 2018:

BS8106 What is Climate risk?
BS8108 Managing Physical Risk
BS8019 Managing Transition Risk
BS8110 Creating New Opportunities

- 9.1.2 The Committee noted that the four online MOOCs had received strategic approval from the Online Learning Innovation group. The purpose of the series of short courses would be to prepare corporate manager (and those undertaking study/experience to become managers) and investors for the challenges of navigating the financial risks posed by climate changes. The four MOOCs endeavours to give an introduction for early-stage professional in the financial sector who are seeking to understand the challenges of global climate change and its systemic effects on the global economy and global financial system.
- 9.1.3 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee for approval with immediate effect.

9.2 PC.2018.20 Entrepreneurship & Innovation Summer School-University of Navarra

- 9.2.1 The Committee considered a proposal from the Business School to introduce the above Summer School for the University of Navarra with effect from May 2019.
- 9.2.2 The Committee noted that the Summer School ran for the first time in Summer 2018 as a trial. The University of Navarra does not have the resources to provide innovation and entrepreneurship teaching to their 4th year students of their Economics, Leadership and Governance (ELG) programme and were seeking an external partner with the capability to provide their students with these tools. Following a successful trial which met the needs of the University of Navarra and complemented their ELG programme it was agreed the Summer School would run on an annual basis.
- 9.2.3 The Committee agreed to recommend the proposal to both the Quality Assurance and Enhancement Committee and Senate for approval with effect May 2019.

9.3 PC.2018.21 'Agents' For Change' Women's Leadership Programme

- 9.3.1 The Committee considered a proposal from the White City Community Engagement Team to introduce the 'Agents For Change' programme with effect from September 2018. The aim of the programme is to capacity build in the community by empowering women in Hammersmith to feel confident in taking leadership roles in all areas of their life, becoming agents for change, capable of strengthening and empowering their communities.
- 9.3.2 The programme will be open to women aged 21+ who live in the White City area and involves a six-month women's leadership course, one day a month, which develops and extends the skills of participants to enable them to make the most of their talents and abilities across all aspects of their lives. The programme also includes membership to an ongoing women's leadership network made up of women who have participated in the programme as attendees or as supporters, to provide mutual support, foster partnership and stimulate community innovation.
- 9.3.3 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee with immediate effect.

10 Suspensions and Withdrawals of Existing Programmes

10.1 PC.2018.22 PG Civil Engineering and Sustainable Development

MSc Concrete Structures & Sustainable Development (1YFT), (2YPT) & (3YPT)
MSc Structural Steel Design & Sustainable Development (1YFT), (2YPT) & (3YPT)
MSc Environmental Engineering & Sustainable Development (1YFT) & (2YPT)

MSc Hydrology & Sustainable Development (1YFT) & (2YPT)
MSc Soil Mechanics & Sustainable Development (1YFT) & (2YPT)
MSc Transport & Sustainable Development (1YFT), (2YPT) & (3YPT)

- 10.1.1 The Committee considered a proposal from the Department of Civil and Environmental Engineering to withdraw the programmes listed above. The programmes have been suspended for the maximum three-year period and the withdrawal is requested as it has proved difficult for the Department to recruit suitable personnel to two key vacancies required to ensure the delivery and stability of the 'Sustainable Development' aspect of the programmes listed.
- 10.1.2 The Committee agreed to recommend the proposal to the Quality and Enhancement Committee for approval with effect from October 2018.

10.2 PC.2018.23 PG Engineering Geology for Ground Models

MSc Engineering Geology for Ground Models (1YFT) & (2YPT)
MSc Engineering Geology for Ground Models & Business Management (1YFT) & (2YPT)
MSc Engineering Geology for Ground Models & Sustainable Development (1YFT) & (2YPT)

- 10.2.1 The Committee considered a proposal from the Department of Civil and Environmental Engineering to withdraw the programmes listed above. The programmes have been suspended the maximum three-year period and the withdrawal is requested following the departure of a key member of staff. It was reported that the department had recruited new staff in the subject area of the above programmes and a new Masters programme is expected to be introduced for October 2020.
- 10.2.2 The Committee agreed to recommend the proposal to the Quality and Enhancement Committee for approval with effect from October 2018

10.3 PC.2018.24 MRes Biomedical Research (Toxicological Sciences)

- 10.3.1 The Committee considered a proposal from the Department of Surgery and Cancer to suspend the above stream for a further two academic years with effect from October 2018. It was reported that the stream leader had been working on securing studentships for interested applicants and this had not been fruitful in time for the last recruitment cycle. The stream leader will be actively working on collaborations to source studentships for this subject area.
- 10.3.2 The Committee agreed to recommend the proposal to the Quality and Enhancement Committee for approval with effect from October 2018.

10.4 PC.2018.25 MSc Theory and Simulation of Material & CDT

- 10.4.1 The Committee considered a proposal from the Department of Physics to withdraw the above programmes with effect from October 2019 due to the loss of EPSRC CDT funding.
- 10.4.2 The MSc programme is the first year of the 1+3 year training model of the EPSRC Centre for Doctoral Training in Theory and Simulation of Materials (TSM-CDT). The one-year MSc programme relies on underpinning funding from EPSRC, this funding for delivery of the MSc programme comes to an end following the 2018/19 academic year.
- 10.4.3 The 1+3 MSc+PhD programme is the training programme of the EPSRC Centre for Doctoral Training in Theory and Simulation of Materials (TSM-CDT). The programme relies on training, delivery and studentship funding from EPSRC. This training grant will only fund on final cohort (starting in October 2018).
- 10.4.4 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee with effect from October 2019 (to close recruitment for 2018-19).

10.5 PC.2018.26 MRes Controlled Quantum Dynamics & CDT

- 10.5.1 The Committee considered a proposal from the Department of Physics to withdraw the programmes above with effect from October 2019.
- 10.5.2 The MRes programme is the first year of the EPSRC Centre for Doctoral Training in Controlled Quantum Dynamics (CQD-CDT). The programme relies on underpinning funding from EPSRC which will come to an end after the 2018-19 academic year.
- 10.5.3 The 1+3 programme is the training programme of the EPSRC Centre for Doctoral Training in Controlled Quantum Dynamics (CQD-CDT). The programme relies on funding from EPSRC which is coming to an end, and does not allow for the recruitment of students beyond 2019-20.
- 10.5.4 The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee with effect from October 2018 (to close recruitment for 2018-19)

11 PC.2018.28 Chair's Actions

The following actions were taken by the Chair on behalf of the Committee:

Deputy Chair's Action (Action taken by Dr Lorraine Craig on behalf of the Chair due to a conflict of interest):

In-session Minor Modification (effective October 2018): Imperial college Business School, MSc Finance and Msc Finance and Accounting.

BS0360 Corporate Dealmaking

The Business School would like to reduce the exam duration on this module from 2 to 1.5 hours.

In previous years this module was assessed solely by a 2-hour exam. In 2018/19 a 50% coursework element has been introduced. The exam will only focus on one part of the module's teaching therefore the module leader would like to reduce the exam duration to avoid over assessing students.

The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee with immediate effect.

In-session Minor Modification (effective October 2018): Imperial college Business School, MSc Finance; MSc Investment & Wealth Management and MSc Risk & Financial Engineering.

BS0318 Credit Risk

The module leader would like to change the assessment weighting of this module from 75% exam and 25% coursework to 60% exam and 40% coursework.

The module is focused on technical aspects of structural and reduced form which is difficult to examine from a practical perspective within one final exam. The module would benefit from introducing a more practical component within term and the module leader would like to incentivise the students by placing more weight on the coursework (and expanding their scope).

The Committee agreed to recommend the proposal to the Quality Assurance and Enhancement Committee with immediate effect.

11 Items to Note

The Committee noted the new Scheme for the Award of Honours of the redesigned UG Earth Science and Engineering programmes with effect from October 2018.

12 Any Other Business

There were no other areas of business to discuss

13 Dates of Future Meetings

Tuesday 27 November 2018, 10:00 - 13:00, Boardroom, 4th Floor Faculty Building.

Tuesday 8 January 2019, 10:00 - 13:00, Ballroom, 58 Prince's Gate.

Tuesday 19 February 2019, 10:00 - 13:00, Ballroom, 58 Prince's Gate.

Tuesday 26 March 2019, 10:00 - 13:00, Ballroom, 58 Prince's Gate.

Tuesday 7 May 2019, 10:00 - 13:00, Ballroom, 58 Prince's Gate.