

Thursday 26th October 2023
10.30-13.00

Present

Dr Clemens Brechtelsbauer (Chair), Ms Lorraine Bayfield (Secretary), Dr Lorraine Craig, Dr Jo Horsburgh, Ms Kate Ippolito, Dr Cloda Jenkins, Dr Felicitas Starr-Egger, Mr Scott Tucker, Dr Vijay Tymms, Dr Jeffrey Vernon, and Ms Betty Yue.

Apologies

Professor Alessandro Astolfi, Ms Camille Boutrolle, Dr Magdalena Jara, Ms Judith Webster and Ms Yi Yang.

In attendance

Dr Elena Dieckmann, Ms Alyssa Gilbert, Ms Anne Houston, Ms Amy Huynh, Dr Shayan Sharifi, Professor Chris Tucci and Dr Sen Wang,

1	<p>Welcome and Apologies</p> <p>The Chair welcomed attendees to the meeting and apologies, as above, were noted.</p> <p>Dr Cloda Jenkins was welcomed as the new Imperial College Business School representative. The Chair also introduced Camille Boutrolle (ICU President) and Yi Yang (ICU Deputy President Education).</p> <p>Dr Jeffrey Vernon was announced as the new deputy chair of the PC.</p>
2	<p>Terms of Reference 2023-24</p> <p>The PC considered and approved the updated terms of reference and membership for the academic year.</p>
3	<p>Minutes of the previous meeting</p> <p>The minutes of the previous meeting held on Tuesday 25th July 2023 were confirmed as an accurate record.</p>
4	<p>Matters Arising</p> <p>There were no matters arising.</p>
Items for consideration	
5.	New Programmes
	Faculty of Engineering
5.1	PC.2023.03 Department of Electrical and Electronic Engineering MSc AI Applications and Innovation
5.1.1	The PC considered a new programme proposal from the Department of Electrical and Electronic Engineering for delivery with effect from October 2024.
5.1.2	<p>The programme team gave the PC a short overview of the new programme.</p> <p>It was noted that the programme would be the first full I-X degree delivered collaboratively with the departments of Computing, Mathematics, and the Imperial College Business School. The programme would focus on applications of Artificial</p>

	<p>Intelligence and of Machine Learning systems in a wide range of industrial and scientific settings.</p> <p>It was agreed that an exciting programme had been presented and that the interdisciplinary approach was a real strength. The educational design had been well-considered, and the PC were impressed by the highly articulated programme level learning outcomes.</p> <p>The PC were supportive of the proposal and agreed upon the following recommendations:</p> <ul style="list-style-type: none"> • Assessment duration and lengths must be indicated on all module specifications. This allows the PC to judge whether the assessment regime is appropriate for the module and ensure that students are not being over-assessed. It must also be decided and clearly stated whether assessments are individual, or group based. Separate assessments should be divided over separate lines, with separate weightings given e.g., quizzes, essays and peer evaluation (Group Project on AI Ventures and Ethics module). • Trustworthy AI in Medical Imaging – An essay and a mini project sounds like a lot of assessment. Are both required? If so, they need to be separated and word counts added as per the above. • Machine Learning for Actionable Decision Making in Healthcare – This module looks excellent, however, 3 components within the Group Project seems on the upper side. • Quantum AI – A 45-minute presentation seems long – is this correct? • Individual Project/Internship – As this is a highly weighted module (45 ECTS) with very little whole group interaction and very supervisor dependant, the programme team should carefully consider equipping and monitoring supervisor practice to ensure consistency of the student experience. • Entry requirements – the admissions selection process does not make it clear how candidates will be selected if the programme is oversubscribed – please clarify. • Form B – Human resources – It may be helpful to represent this section with an infographic for the programme team to refer to when full recruitment has taken place. • The programme team could consider how other departments across the College could contribute to the programme as it develops.
<p>5.1.3</p>	<p>The PC advised that the recommendations above be considered and that the updated documentation be submitted to the Quality Assurance and Enhancement team. Subject to a satisfactory response, the PC agreed to recommend the proposal to the QAEC for delivery with effect from October 2024.</p>
<p>5.2</p>	<p>PC.2023.04 Dyson School of Design Engineering MSc Cleantech Innovation</p>
<p>5.2.1</p>	<p>The PC considered a new programme proposal from the Dyson School of Design Engineering for delivery with effect from October 2024.</p>
<p>5.2.2</p>	<p>The programme team gave the PC a short overview of the new programme.</p> <p>It was agreed that a detailed and well thought through proposal had been presented and the programme provided an excellent opportunity for students to gain practical experience. The one-week team/cohort building workshop was praised by the Committee as a good way to introduce students to this type of programme.</p> <p>The PC agreed upon the following recommendations:</p> <ul style="list-style-type: none"> • To ensure consistency of student experience, industry assessors/supervisors must be fully briefed on College guidelines and equipped and trained with the skills to supervise students.

	<ul style="list-style-type: none"> The opportunity to work with start-ups is of great benefit but please ensure that there is a back-up plan should any fall through. Students should be provided clarity on the role of coaches and personal tutors so that they are aware of who to approach for support. As group work is a key element of the programme, please ensure that processes are in place to mitigate any impact on the group project should a student leave the programme, or any issues arise with team dynamics. The Greenhouse Residency project is an attractive element of the programme and could be highlighted more in the programme overview of the programme specification. This is a unique selling point. As graduates from this programme could go on to create their own start-ups, it may be beneficial to include 'understanding and mitigating start up risks and challenges' as part of the business model teaching. <p>Some additional minor feedback was provided to the programme team. This was optional constructive suggestions for improvement of the student experience but not a quality assurance requirement. This feedback was not preventative in progressing the proposal.</p>
5.2.3	The PC advised that the recommendations above be considered and that the updated documentation be submitted to the Quality Assurance and Enhancement team. Subject to a satisfactory response, the PC recommended that the QAEC approve the proposal.
6	Major Modifications to Existing Programmes
	Faculty of Engineering
6.1	PC.2023.05 Department of Electrical and Electronic Engineering MSc Analogue and Digital Integrated Circuit Design (H6W8)
6.1.1	The PC considered a proposal to permanently remove the elective module COMP60001 'Advanced Computer Architecture' from the programme named above with effect from October 2024.
6.1.2	The PC recommended the QAEC approve the proposal.
6.2	PC.2023.06 Department of Electrical and Electronic Engineering BEng Electronic and Information Engineering (HG65) MEng Electronic and Information Engineering (GH56) MEng Electronic and Information Engineering with a Year Abroad (HG6M)
6.2.1	The PC considered a proposal to permanently remove the elective module COMP60019 'Robotics' from the programmes named above with effect from October 2024.
6.2.2	The PC recommended the QAEC approve the proposal.
6.3	PC.2023.07 Department of Materials MSc Advanced Materials Science and Engineering (J2U3T)
6.3.1	The PC considered a proposal to introduce a new specialism, 'Theory and Simulation of Materials', to the programme named above with effect from October 2024.
6.3.2	The PC recommended the QAEC approve the proposal.
	Faculty of Medicine
6.4	PC.2023.08 Department of Surgery and Cancer MRes Medical Robotics and Image Guided Intervention (A1H6T)

6.4.1	The PC considered a proposal to introduce a new programme stream, 'Clinical Robotics and AI' to the programme named above with effect from October 2024.
6.4.2	<p>The Programmes Committee were supportive of the proposal and agreed upon the following recommendations:</p> <ul style="list-style-type: none"> • Please ensure that consistent terminology is used throughout the programme specification e.g., programme vs course. • Please revisit the CRAI assessment table within the Assessment Strategy section of the programme specification as 1% examination assessment appears inaccurate. 20% of the 7.5 ECTS 'Surgical Data Science and AI' module is assessed by examination, therefore 1.5 ECTS out of the 90 ECTS are by examination or 1.66% of the programme.
6.4.3	The PC advised that the recommendations above be considered and that the updated documentation be submitted to the Quality Assurance and Enhancement team. Subject to a satisfactory response, the PC recommended that the QAEC approve the proposal.
	Faculty of Natural Sciences
6.5	PC.2023.09 Department of Mathematics MSc Applied Mathematics (G1U2, G1U224)
6.5.1	The PC considered a proposal to introduce a new programme stream, 'Scientific Computing and Machine Learning' to the programme named above with effect from October 2024.
6.5.2	<p>The PC were supportive of the proposal however felt that clarity was required on some aspects of the documentation. They agreed upon the following recommendations:</p> <ul style="list-style-type: none"> • Please confirm whether the SCML programme stream is available for entry or via internal transfer only. There are ambiguities in the paperwork about the status of the stream as a separate programme. • Is there opportunity for students to transfer back to the Applied Mathematics once the SCML stream has been selected? • Please be clear in the programme specification and the website that entry to the SCML stream may be limited. What contingencies are in place should applications for the SCML stream exceed project availability and what will be the basis of student selection? • The PC advises against the removal of the SCML programme learning outcomes and expects these to be included on the programme specification. • On perception of fairness would it be a solution if other pathways within the umbrella programme constituted a stream? For example, in finance, mathematical physics, physics, probability? Could you identify 4modules that would constitute each of these streams if taken together with a relevant project? • It would be helpful for the PC to see more in the rationale section about likely demand, research interests of the programme team, or current developments in mathematics. <p>The PC briefly discussed the terminology and requirements of introducing a new 'stream', 'pathway' or 'specialism' and agreed that it would be helpful for the College to agree on a consistent approach.</p>
6.5.3	The PC advised that the recommendations above be considered and that the updated documentation be submitted to the Quality Assurance and Enhancement team. Subject to a further review and a satisfactory response, the PC recommended that the QAEC approve the proposal.
6.6	PC.2023.10 Department of Mathematics

	<p>BSc Mathematics (G100) BSc Mathematics with Mathematical Computation (G102) BSc Mathematics (Pure Mathematics) (G125) BSc Mathematics with Applied Mathematics/Mathematical Physics (G1F3) BSc Mathematics with Statistics (G1G3) BSc Mathematics with Statistics for Finance (G1GH) MSci Mathematics (G103) MSci Mathematics with a Year Abroad (G104) MSc Pure Mathematics (G1U3, G1U324) MSc Applied Mathematics (G1U2, G1U224)</p>
6.6.1	<p>The PC considered a late in-session proposal to:</p> <p>a) Introduce the level 6 module 'Dynamics, Symmetry and Integrability' as an elective module to year three of the BSc programmes named above with immediate effect.</p> <p>b) Introduce the level 7 module 'Dynamics, Symmetry and Integrability' as an elective module to year four (MSci) and the MSc programmes named above with immediate effect.</p>
6.6.2	<p>The PC were disappointed to receive the late proposal and were concerned to see that the module had been advertised to some students ahead of PC approval.</p> <p>The programme team were advised that in future the modification deadline and elective module management should be managed appropriately within the department.</p>
6.6.3	<p>The PC recommended that the QAEC approve the proposal on a temporary basis for one year and that the external examiners should re-review the modules. Additionally, the PC requested re-assurance that if a student had taken the BSc, that they would not be able to take the level 7 version of the module during the MSc.</p>
Items to note	
7.1	PC.2023.11 Chair's Report
	<p>The PC noted the proposals that had been approved by via Chair's action on behalf of the PC since the last meeting.</p>
Faculty of Engineering	
7.1.1	<p>PC.2022.CA25 Department of Computing MEng Computing (G401) MEng Computing (Artificial Intelligence and Machine Learning) (G700) MEng Computing (Management and Finance) (G501) MEng Computing (Visual Computing and Robotics) (GG47) MEng Computing (International Programme) (G402) MEng Computing (Software Engineering) (G600) MEng Computing (Security and Reliability) (G610) - Compulsory MEng Mathematics and Computer Science (GG41) MSc Advanced Computing (G5UO) MSc Computing (Artificial Intelligence and Machine Learning) (G5U10) MSc Computing (Management and Finance) (G5U11) MSc Computing (Visual Computing and Robotics) (G5U13) MSc Computing (Software Engineering) (G5U16) MSc Computing (Security and Reliability) (G5U21)</p> <p>A late major modification to change the learning outcomes and content of COMP70018 'Privacy Engineering'.</p>
7.1.2	PC.2022.CA26 Department of Computing MEng Computing (G401)

	<p>MEng Computing (Artificial Intelligence and Machine Learning) (G700) MEng Computing (Management and Finance) (G501) MEng Computing (Visual Computing and Robotics) (GG47) MEng Computing (International Programme) (G402) MEng Computing (Software Engineering) (G600) MEng Computing (Security and Reliability) (G610) MEng Mathematics and Computer Science (GG41) MSc Advanced Computing (G5UO) MSc in Computing (Artificial Intelligence and Machine Learning) (G5U10) MSc in Computing (Management and Finance) (G5U11) MSc in Computing (Visual Computing and Robotics) (G5U13) MSc in Computing (Software Engineering) (G5U16) MSc in Computing (Security and Reliability) (G5U21) MSc Computing (G5U6) MSc Artificial Intelligence (G5T1)</p> <p>A late modification to change the learning outcomes of COMP70006 'Computational Finance', and COMP70024 'Software Reliability'.</p>
7.1.3	<p>PC.2023.CA03 Department of Electrical and Electronic Engineering MEng Electronic and Information Engineering (GH56)</p> <p>An in-session proposal to add the existing Computing module COMP70006 'Computational Finance' to year four of the programme named above with immediate effect.</p>
	Faculty of Medicine
7.1.4	<p>PC.2022.105 Short Course XR in Healthcare Education and Clinical Practice</p> <p>The revised documentation in response to the recommendations made at the PC meeting held on 25th July 2023.</p>
7.1.5	<p>PC.2022.97 New programme proposal MSc Bioscience Futures: Communication, Innovation and Entrepreneurship</p> <p>The revised documentation in response to the recommendations made at the PC meeting held on 25th July 2023.</p>
	Faculty of Natural Sciences
7.1.6	<p>PC.2022.CA24 Department of Life Sciences MSc Computational Methods in Ecology and Evolutions (C1B2) MSc Ecosystems and Environmental Change (C1G1) MSc Ecological Applications (C1U7) MSc Taxonomy, Biodiversity and Evolution (C1U8) MRes Computational Methods in Ecology and Evolution (C1Y9) MSc Ecology, Evolution and Conservation (C1Z8)</p> <p>A late modification to update the following:</p> <p>a) Change all modules (apart from project) from core to compulsory.</p> <p>b) Minor updates to the programme specs to outline correct assessment balance across programmes.</p>
7.1.7	<p>PC.2023.CA01 Department of Physics BSc Physics (F300) BSc Physics with Theoretical Physics (F325) MSci Physics (F303) MSci Physics with Theoretical Physics (F390)</p>

	<p>MSci Physics with a Year Abroad (F309)</p> <p>A late in-session proposal to update the following:</p> <p>a) Change the ECTS value and allocation of study hours of the spring term elective module PHYS60008 'Principles of Instrumentation' (from 5 to 7.5 ECTS).</p> <p>b) Update the assessment regime (from Exam 80%, CW20% to Exam 75%, CW 25%).</p>
	Imperial College Business School
7.1.8	<p>PC.2022.91 Curriculum Review MRes Business 1 year (N1UQ)</p> <p>The revised documentation in response to the recommendations made at the PC meeting held on 16th May 2023.</p>
7.1.9	<p>PC.2022.92 Curriculum Review MSc International Health Management (N1EG)</p> <p>The revised documentation in response to the recommendations made at the PC meeting held on 16th May 2023.</p>
7.1.10	<p>PC.2022.100 Major modification MSc Management (N19J)</p> <p>The revised documentation in response to the recommendations made at the PC meeting held on 25th July 2023.</p>
7.1.11	<p>PC.2023.CA02 In-session modification Full time MBA (N1UD)</p> <p>A proposal to change the assessments and assessment strategy of the compulsory module BUSI70297 'Business Analytics' with immediate effect.</p> <p>Subject to full student consultation taking place and evidence to confirm their support of these changes.</p>
7.2	<p>Quality Assurance and Enhancement Committee (QAEC)</p> <p>The PC noted the minutes from the previous QAEC found on the College webpages: www.imperial.ac.uk/about/governance/academic-governance/senate-subcommittees/quality-assurance-enhancement-committee/</p>
Any Other Business	
8.1	<p>PC.2023.12 Department of Computing MSc Computing (Management and Finance) (G5U11)</p>
8.1.2	The PC considered a proposal to suspend the programme named above for one year with effect from October 2024 entry.
8.1.3	The PC recommended the QAEC approve the proposal.
8.2	Committee members were thanked for their contributions and the meeting was closed.