

Faculty of Engineering & Design

Meeting: FACULTY BOARD OF STUDIES
Date and Time: Thursday 22nd November 2018 at 2.15 pm
Venue: 2 East 3.4

Present: Prof Gary Hawley Dean (*Chair*)
Dr Kirill Cherednichenko Faculty of Science, Dept. of Mathematics
Dr Andrew Cookson Dept. of Mechanical Engineering
Dr Jos Darling Dept. of Mechanical Engineering
Dr Marianne Ellis Associate Dean L&T, Dept. of Chemical Eng.
Prof. Stephen Emmitt Dept. of Architecture & Civil Engineering
Dr Adrian Evans Dept. of Electronic & Electrical Engineering
Dr Jeff Gavin Dept. of Psychology, Faculty of H&SS
Mr Jack Kitchen Students' Union Education Officer
Prof. Gary Lock Dept. of Mechanical Engineering
Prof Tim Mays Dept. of Chemical Engineering
Dr Francis Robinson Dept. of Electronic & Electrical Engineering
Dr Maria Valero Dept. of Electronic & Electrical Engineering
Dr Mike Wilson Dept. of Mechanical Engineering

In Attendance: Mrs Rachel Summers Faculty Assistant Registrar

Apologies: Apologies for absence were received from Dr Florin Bisset, Dr John Chew, Dr Sally Clift, Dr Mark Evernden, Dr Vaggelis Giannikas, Mr Raj Haria, Prof. Davide Mattia, Mr David Stacey, & Mr Daniel Wong.

ACTION**1571 APOLOGIES**

Apologies as detailed above were noted.

1572 MINUTES OF THE PREVIOUS MEETING (FE2018-19/037)

The unreserved minutes of the meeting of the Board of Studies held on 10 October 2018 were approved as a correct record of the proceedings with a minor correction to the attendance list.

1573 DEAN'S BUSINESS

The Dean noted that the Faculty's TeamBath Racing electric (TBRe18) student team were en route to China to compete for the first time internationally, in Zhuhai, at the FS Electric China competition. This opportunity is a result of TBRe18 securing the sponsorship of SAIC Motor Technical Centre UK which has provided student placements at SAIC as well as supporting the team in getting to China. The Dean and colleagues from the Dept. of Electronic & Electrical Engineering will be attending the competition and will also be hosting an engineering Alumni event in Hong Kong, an

early conversion event and making tailored school visits to promote Engineering at Bath.

1574 CURRICULUM TRANSFORMATION

Heads of Department had been asked to provide brief verbal reports on Curriculum Transformation activities within their respective departments with particular reference to three positive outcomes, *from the student perspective*, that will be achieved from the CT process.

Professor Lock (Mechanical Engineering) identified the following as being key objectives,

- a) **A reduction in the overall volume of assessment to encourage deeper learning.** The CT team in mechanical engineering is looking at delivering the curricula via fewer units with fewer examinations which it is hoped will reduce student stress and exam anxiety. Members of the Board commented that a better understanding of what contributes to and creates high levels of stress amongst students is required – is it clear for example that fewer summative exams reduces stress? Mr Kitchen (SU) agreed that whilst a large volume of assessment is definitely a key contributing factor for students, reducing the total number of exams is not likely, on its own, to be a magic bullet – it's a more complex issue. For example bunching of assessments is a factor too, as is students' natural tendency to prioritize summative over formative assessments, and there is also the unintended consequence of fewer exams leading to students feeling that they have to revise and remember more content for individual exams rather than it being spread across a number of papers. As part of CT, the department is mapping all assessments (both formative & summative) across the programme lifecycle so a clearer more transparent picture of assessment is available. Dr Ellis commented that formative assessment opportunities could be very positive particularly where the design of formative assessment is linked to associated summative assessments. Through formative assessment, students get a clearer idea of what they need to do which can alleviate stress. The vanguard CT programmes have had input from Student Services with the aim of providing mental health sessions in parallel with professional skills.
- b) **Graduate attributes & learning matched to the needs of the modern industrial workplace.** Work on CT has included a comprehensive skills review, with the team consulting with both students and industry via the department's Industrial Advisory Board (IAB). Feedback from students has highlighted a keen interest in sustainability, which aligns with the expectations of industry for Bath graduates to be creative and responsible engineers.
- c) **To align teaching and learning with the Department's research strengths.**

Dr Evans (Electronic & Electrical Engineering) identified the following as being key objectives,

- a) **Reduction in assessment.** Similar to the Department of Mechanical Engineering, this a key aim for the Elec Eng CT Team.
- b) **Holistic approach to assessment and curricula across the programme lifecycle.** The Elec Eng CT team are developing a clear matrix for students, which illustrates how the curricula and learning outcomes are linked across units, and throughout the programme e.g. how year one learning informs the subsequent years of the degree.
- c) **Embedding and integration of transferable skills throughout the curricula.** Learning outcomes for all units will also be more explicitly described and aligned to the Engineering Councils' UK Standard for Professional Engineering Competence (UK-SPEC).

Professor Emmitt (Architecture & Civil Engineering) commented that the CT process

had provided a great opportunity to engage with students and ensure that their priorities are pivotal to the transformation of the curricula. Similar to the objectives already highlighted by Mechanical and Elec. Engineering, Architecture & Civil Engineering intend that students will benefit from redesigned degree courses, the introduction of **fewer but larger teaching blocks (units) with improved content, fewer assessments, structured feedback opportunities** and with the curricula more explicitly linked to needs of industry. At PGT level the dept. is planning a **'platform approach'** which will provide students with greater opportunities to meet from across degree courses with a shared common unit in project management. Professor Emmitt pointed out that CT is requiring a considerable amount of work from both academic staff and students but that it is absolutely worthwhile.

Professor Mays (Chemical Engineering) noted that the department's undergraduate curricula had led the way on CT, having been part of the vanguard; Phase 3 (the final approval stage) is due to be completed in Spring 2019. Three key features from the student perspective are

- a) **Clearer connections across the curricula from the first year right through the course.**
- b) **Fewer summative assessments.** Broader & deeper understanding has been the driver with the objective of moving away from 'memorization' towards students demonstrating their ability to connect and apply their knowledge
- c) **Problem based and project learning activities.** Mindful of the feedback from industry on the attributes and skills they are looking for in a graduate engineer the curriculum has been designed to provide opportunities for students to develop these skills.

The Board noted that Departments need to be sensitive and mindful of our current, existing students and ensure that they also benefit from the ideas which are emerging from curriculum transformation e.g. the alleviation of assessment burdens. We need to be proactive in managing the perceptions and expectations of current students and ensure that they understand that our current degrees are acknowledged to be 'good products' but they can nevertheless be enhanced, for example by introducing more Problem Based Learning opportunities.

The Chair asked Mr Kitchen whether there were any common priorities from across the student body that they would like to see coming out of CT. A clear priority for all students was a reduction in assessment and increased opportunities for group work. Students also feel strongly that their courses should reflect the issues faces wider society – sustainability, inclusivity and accessibility. The Chair encouraged student representatives to bring forward to future meetings themes and ideas for general discussion by the Board.

1575 DELEGATION OF POWERS (FE2018-19/042)

APPROVED: delegation of responsibility for minor and intermediate changes to the Faculty Learning Teaching & Quality Committee for the 2018-19 academic year.

APPROVED: delegation of minor changes only to Departmental Learning Teaching & Quality Committees for the 2018-19 academic year.

1576 BOARDS OF EXAMINERS MEMBERSHIP (FE2018-19/043)

The Board received the membership of the Board of Examiners for Units (BEU) and

APPROVED the membership of the Board of Examiners for Programmes (BEO) for the collaborative provision of licensed programmes: the FdSc & BSc (Hons) in Motorsport Engineering, Wiltshire College.

1577 STAFF STUDENT LIAISON COMMITTEES (SSLC) MEMBERSHIP & TERMS OF REFERENCE 2018-19 (FE2018-19/044)

The Board approved the terms of reference and membership of Staff Student Liaison Committees (SSLCs) as detailed in paper FE2018-19/044 and listed below

- a) Department of Architecture & Civil Engineering
Meetings scheduled for 24 October, 5 December, *3 March & *17 April 2019
*separate SSLC meetings are to be held for Architecture and Civil Engineering students.
- b) Department of Chemical Engineering
Meetings scheduled for 19 October, 9 November, 30 November, . 22 February, 15 March, 5 April 2019
- c) Department of Electronic & Electrical Engineering
Meetings scheduled for 31 October, 5 December, 20 February & 10 April 2019
- d) Department of Mechanical Engineering
Meetings scheduled for 23 October, 13 November, 4 December, 12 February & 2 April 2019
- e) Learning Partnerships Office (LPO) – Motorsport Engineering
Meetings scheduled for 23 October, 11 December, 5 February & 26 March 2019

1578 FACULTY LEARNING TEACHING & QUALITY COMMITTEE MINUTES (FE2018-19/046)

The unreserved minutes of the Faculty Learning Teaching & Quality Committee meeting held on 17 October 2018 were received and noted.

1579 FACULTY DOCTORAL STUDIES COMMITTEE MINUTES (FE2018-19/49)

The unreserved minutes of the Faculty Doctoral Studies Committee meetings held on 2 May, 30 May, 20 June, 25 July and 5 September 2018 were received and noted.

1580 REPORTS FROM ASSOCIATE DEANS & DEPARTMENTS

- a) Prof Mays (HoD Chemical Engineering) was pleased to report that Stephen Salve Doliente, a PhD student in the Dept, had been awarded First Prize in the Sustainable Engineering Forum Poster Competition at the 2018 AIChE Annual meeting, held in the US. In staffing matters, the department has recently appointed new staff to three lecturer positions; a further post, Lecturer in Environmental Engineering. to support the new MSc programme, will be advertised to start in September 2019 – Prof Mays noted however that the continued pressure on suitable office space was an issue to be resolved. The department has seen a drop in the number of UG applications for 2019 entry and has responded by beefing up marketing and providing additional academic visit days. The department is awaiting the outcome of four CDT submissions.
- b) Prof Emmitt (HoD Architecture & Civil Engineering) was pleased to report that the department's Athena Swan silver application was ready to be submitted. With regards to academic staff vacancies, three civil engineering positions

have been re-advertised with a closing date in mid-December.

- c) Prof Lock (HoD of Mechanical Engineering) reported that Dr Elies Dekoninck was the new Head of Group for Design and Manufacturing. Mr Richard Brooks, Director of Human Resources had visited the Department to talk about the #NeverOK campaign. In staffing matters, Dr Alan Hunter had been promoted to Senior Lecturer and Mr Andrew Avent had been promoted to a grade 8 role. Dr Jon Du Bois and Dr David Cleaver had been awarded an EPSRC grant for £246k. The following new lecturers had been appointed: Dr Sophie Parsons (internal), Dr Anna Young (Cambridge) and Dr Alexander Lunt (Oxford). Two lectureships were currently being advertised.
- d) Dr Adrian Evans (HoD Electronic & Electrical Eng.) advised that the department's Athena Swan bronze application would be submitted at the end of the month. Dr Sinan Li, a new lecturer in Power Electronics, would be joining the department in early February and the department is considering the appointment of a Teaching Fellow (or possibly a Senior Teaching Fellow) to lead undergraduate Group Business Design Project activities. The Department is also considering the development of an EIP unit for EE students (currently only available for IMEE students). The Chair commented that cross-faculty multi disciplinary project teams ought to be a key feature of our undergraduate provision and that the successes and strength of the student Team Bath Racing teams owed a great deal to this multidisciplinary approach. Dr Evans noted that the TBR Electric team were en route to China to participate in the Formula Student Electric China event (the sole UK Team present at the event). He noted that some of last year's graduating students had taken unpaid leave from their jobs in order to participate, such was their commitment to the project. Dr Evans was pleased to report that the Dean had recently approved £71k investment in a battery charging and build facility in support of TBR Electric.
- e) Dr Ellis (Associate Dean Learning & Teaching) advised that a review of QA33 Personal Tutoring was being carried out and that a paper would in due course be submitted to ULTQC. The ownership of promoting the NSS and PTES surveys is to be transferred to departments. Dr Ellis noted that the University would not be participating in UKES this year. The new job descriptions for Directors of Teaching and Directors of Studies had recently been approved by Senate (Secretary to circulate to Board members) .

1581 LIBRARY MATTERS

In the absence of Mr Stacey there were no specific library matters to report other than an update on the While You Were Away Campaign – further details were available online at <http://www.bath.ac.uk/library/gen/WYWA-2018.pdf>.

1582 DEPARTMENTAL SSLC MINUTES (FE2018-19/050-054)

The Board received the minutes of the Staff Student Liaison Committee (SSLC) meetings as detailed below,

- (i) Architecture & Civil Eng. UG SSLC 7 March & 25 April 2018
- (ii) Chemical Eng. UG SSLC 20 April 2018
- (iii) Electronic & Electrical Eng. UG SSLC 20 April 2018
- (iv) Mechanical Eng. UG SSLC 17 April 2018
- (v) Faculty PGT SSLC 28 Feb & 9 May 018

1583 ANY OTHER BUSINESS

There were no other items of business