### **Minutes of Meeting**

# University of Bath Faculty of Science



Meeting FACULTY LEARNING, TEACHING AND QUALITY COMMITTEE

Place Microsoft Teams

Date and Time Wednesday 21 October 2020 at 14:15

Present Professor M V Hejmadi Associate Dean (Learning and Teaching) (Chair)

Dr C Bonfield Technology Enhanced Learning Manager (for minute 2959)
Mr T Cheung Postgraduate Taught student representative (Department of

Computer Science)

Miss F Jackson Students' Union Sabbatical Officer (Community)

Professor M Jones Department of Chemistry Dr F R Laughton Department of Physics

Mr K Maharaj Undergraduate student representative (Department of

Computer Science)

Dr F Nemetz Department of Computer Science
Mrs S Paine Programmes Manager (Operations)

Dr P J Rogers Department of Pharmacy and Pharmacology

Mrs M Salter TEL Digital Education Development Manager (for minute

2959)

Dr T Shardlow Department of Mathematical Sciences
Dr C M Todd Department of Biology and Biochemistry

Dr J White Natural Sciences programmes

Mr J Withington Undergraduate student representative (Department of

Physics)

Professor S Ward Associate Dean (International)

In attendance Mrs M L Hallett Faculty Assistant Registrar (Secretary)

Apologies Dr F Bisset Head of Learning Partnerships

Action

The Chair welcomed the following new FLTQC members:

- Dr Fabio Nemetz, Department of Computer Science new Director of Teaching.
- Faculty UG student representatives: Mr Kieran Maharaj, MComp (Hons) Computer Science and Mathematics (Year 3), and Mr Jacob Withington, BSc (Hons) Physics with Placement (Year 4).
- Faculty PGT student representative (MSc Data Science): Mr Tony Cheung.
- Students' Union Sabbatical Officer (Community): Miss Freya Jackson.

#### 2959 THINKING AHEAD

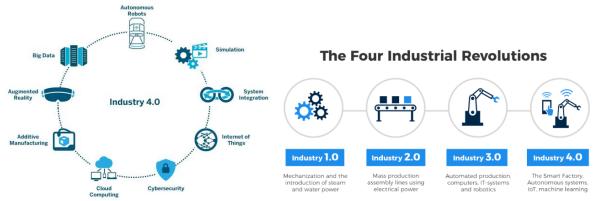
**DIGITAL EDUCATION – A GLOBAL PERSPECTIVE:** Dr Christopher Bonfield and Mrs Marie Salter (20 minute presentation, followed by 10 minute Q&A). Drivers affecting education include:

- Structural Changes to the World of Work (Industry 4.0).
- Increasing demand for flexible, 'relevant' and personalised curricula.
- Industry increasingly offering own training to fill gaps (e.g. AI, Big Data, Cloud Computing).

• Changes to expectations of the student "experience" on and off campus – need to differentiate "services" provided by HE.

### Industry 4.0:

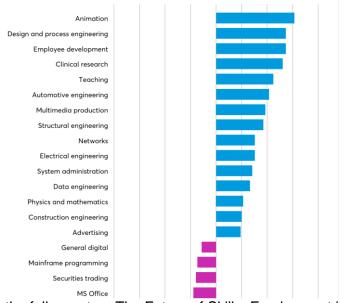
Industry 4.0 is the latest evolution in the industrial revolution; focussed on autonomous systems, robotics, augmented reality.



Headline from BBC News website today from the World Economic Forum: Machines to 'do half of all work tasks by 2025'. The report states that 97 million jobs will be created but that equal numbers of jobs (e.g. routine jobs) will be lost. It will be a changing workforce, adapting to new types of work.

### Skills:

The Nesta report 2017 shows a change in the skills required going forward, e.g. demand for more creative jobs:



See the full report on The Future of Skills: Employment in 2030 at: <a href="https://www.nesta.org.uk/report/the-future-of-skills-employment-in-2030/">https://www.nesta.org.uk/report/the-future-of-skills-employment-in-2030/</a>

Recovery, Skills, Knowledge and Opportunity: A Vision for Universities, Universities UK October 2020:

"Universities are well placed to play a central role in delivering the skills needs of the new economy that emerges after Covid-19, with maximum impact coming from strengthening existing and building new partnerships with employers, colleges, local businesses and the public sector".

"... We are committed to working in partnership across the education system to create the flexibility needed by learners and businesses to meet their workforce needs. We will create opportunities for everyone to develop their skills, including while working, studying part time or through bitesize learning..."

### Two General Trends in Education:

Education is in the exploration stage but there are two emerging global trends (particularly in the US, Australia, Singapore and China). Universities are:

- Making services and campuses 'Smarter', e.g. automated marking.
- Making learning personalised, bite-sized (modularised) and flexible (outside normal academic calendar).

### Predictions / Disruptors to HE (pre-Covid):

1-3 Years:

Big Data (to evaluate student activity), Learning Analytics, Personalised Apps and Student Wellbeing.

Digital Curriculum /Skills / Education.

• 3-5 Years:

Smart / 'Sticky' Campus, whereby buildings / spaces recognise your presence, e.g. students walk into the library and their reading list appears on their mobile phone (rather than them having to access the reading list via their VLE course page). A balance is needed between personalised learning and spoon-feeding. 'Sticky' campus means a campus on which students want to stick around, e.g. campuses that provide informal learning spaces.

5+ Years:

Artificial Intelligence embedded into teaching and learning. This has implications for privacy laws around an individual's own data, e.g. school children having their brainwaves monitored to ensure engagement with teaching.

### Our Research:

Dr Bonfield and Mrs Salter have published recently with colleagues at Deakin University in Australia (a digital pioneer): https://doi.org/10.1080/23752696.2020.1816847

Smart Campus (Design):

Smart Spaces. Hybrid teaching spaces for in-person and remote learners.

In the UK (e.g. Northampton and Staffordshire) small group work-spaces are the trend. Monash University has purpose built desks with swivel seats in tiered lecture theatres, group work spaces within atrium / foyer areas with electrical charging sockets, large rooms (600 student capacity) that can be divided into both wet and dry labs, containing table terminals with cupboards underneath storing the equipment required for that group, and round teaching rooms with whiteboards around the outside that can be used to throw images from the whiteboards to i) screens in the centre hanging from the ceiling or ii) small group tables. Nanyang Technological University (NTU) in Singapore replaced all its lecture rooms with small group teaching spaces within 1 year.

Smart Campus (Services):

Deakin University created the Deakin Genie App: <a href="https://www.deakin.edu.au/life-at-deakin/why-study-at-deakin/deakin-genie">https://www.deakin.edu.au/life-at-deakin/why-study-at-deakin/deakin-genie</a> which is linked to the University's email, timetable, calendar, assessment dates, library loans and lists, access to student support, induction events and referencing help. 20,000 out of 40,000 of the University's students use the App currently. The App can auto answer some questions and flags others to members of staff for a response. Many of the questions being asked, particularly by students for whom English is a second language, were welfare and wellbeing questions. The App brings all the information available into one space.

In Asia in particular robotics have been introduced into the classroom to do repetitive tasks, e.g. teaching students English grammar and syntax; students were more comfortable asking a computer the same question many times than they were a member of staff, because the computer was not seen to judge the students.

In UK universities HoloLens and augmented reality are being used for teaching purposes, e.g. medical schools for training in operations on patients.

 Bite-sized Degrees and end of Single Disciplines (in favour of a multi-disciplinary concept / problem / grand challenge idea, e.g. climate emergency)?

An increasing number of companies offer flexible / personalised education and industry qualifications, e.g. Amazon offer universities a plug-in (small, bite-sized, focussed chunks of education) for their students to prepare them for cloud computing, etc.

Future Learn, Coursera and edX started off offering short, online courses (MOOCs) and now offer micro-credential programmes, i.e. a combination of a number of related short courses, in which students are assessed for credit which can be built towards a full online degree. Coventry University plans to offer 50 UG and PGT online degrees through Future Learn within 5 years. Coventry has launched an MSc in Cyber Security with the Institute of Coding and is also working with Deakin University to offer global joint degrees in which different institutions offer different modules on the same programme.

### Lifelong Learning:

Singapore has created a platform called My Skills Future which offers bite-size courses relating to Education 4.0 and Industry 4.0 from different HE providers across the country to postgraduates. Singapore gives each Singaporean citizen \$1500 for lifelong learning, and universities often provide a top-up with alumni credits.

NTU's face-to-face offering includes:



Tomorrow's Education Delivered Today?

https://www.myskillsfuture.sg/content/portal/en/index.html

Singapore Polytechnic offers a Certificate in Lab Management and Statistics as a bite-size face-to-face course outside of a normal degree programme; could slot into a degree or be offered as a stand-alone unit to be completed as lifelong learning credit.

The Committee agreed that a review of how these investments impact on learning and teaching should inform the University's digital and employability strategies. Dr White and Professor Jones flagged that bite-sized / modularised education does not fit with Curriculum Transformation and the ethos of moving to larger units.

### 2960 MINUTES OF PREVIOUS MEETING

The Committee approved the minutes of the previous Faculty Learning, Teaching and Quality Committee (FLTQC) meeting held on 4 June 2020 (Paper 1).

### 2961 MATTERS ARISING

The Committee considered a matters arising update paper (Paper 2) which reported the following:

### **M2945 CHAIR'S BUSINESS**

• Curriculum Transformation (CT):

The Committee noted that UG Chemistry CT would be delayed for a 2023/24 start, to align with all UG courses, enabling plans to reaccredit the existing programmes to proceed in the meantime.

Dr White sought clarification as to the expectations on Departments to proceed with CT. The Chair explained that some Departments had implemented changes proposed (e.g. reduced assessment, larger units) as part of CT through Resilient Curriculum. The Committee noted that, at its meeting next week, ULTQC\* would consider plans for CT, and unit/programme changes in the meantime, in light of lessons learnt from the flexibility afforded by no detriment and blended learning and the implications of this for a future Assessment Framework. The software to support future curriculum development (CMIS / CT App / Curriculum Planner) would also be reviewed as part of that discussion.

Dr Laughton highlighted the need for clarity regarding new courses introduced as part of CT and expressed concern that positive CT initiatives might now be abandoned, e.g. adopting a course-wide view to streamlining teaching and assessment. Dr Rogers flagged the need for clarity, at the earliest opportunity, as to whether the move from ECTS to CATS will still proceed, and, if so, on what timescale, given the need to ensure continued compliance with PSRB requirements and alignment with Natural Sciences and other collaborations. \*Recently renamed Education, Quality and Standards Committee (EQSC).

### 2962 CHAIR'S BUSINESS

The Chair brought the following matters to the attention of the Committee:

- Resilient Curriculum / Bath Blend work over summer.
- SU Top Ten 2020/21. The SU are calling on the University to:
  - Commit to sustainable investment practices and divest from all companies with links to the fossil fuel industry.
  - Create and commit to a specific action plan for decolonising the curriculum.
  - Enact a universal Trans Policy, developed with students and staff.
  - Provide additional, sustainable staff resource to ensure the delivery of Mental Health First Aid training to at least 10% of students and staff.
  - Ensure good supervision practice through provision of training to all supervisors.
  - Enhance case management of Report and Support to provide a swift and effective resolution to cases.
  - Introduce a policy for all students to be able to access recordings of all their lectures.
  - Produce clear guidance and communication with our placement students to ensure that impacts due to Covid-19 are mitigated as much as possible.
  - Design a specific support plan for students from low-income backgrounds in order to provide jobs and support in light of Covid-19.
  - Create a list of additional costs from the University experience and look to reduce these costs on an annual basis to ensure equity of experience.
- Student Advisory Panel & Student Remote Working Panel.
- No detriment measures in 2020/21:

A planned approach to 2020/21 through Resilient Curriculum / Bath Blend means a broadbrush approach to 'no detriment' is no longer needed. Instead a targeted approach to nodetriment policy can be taken, with specific measures designed to support individual students who experience disruption to assessment:

❖ IMC will no longer be applied to the whole cohort for a whole semester; individuals will be expected to submit IMC requests for disrupted assessment. The IMC Working Group will be consulted on IMC timescale, claim processes and evidence expectations.

- ❖ No detriment deferral of exams will continue to be allowed, and extensions to submission deadlines for coursework and dissertations / projects. A light-touch notification process for students needing to defer their exam to the supplementary period will be established.
- Policy on treatment of late or incomplete submissions due to technical issues will be reviewed by ULTQC, alongside academic integrity policy.
- There will be no classification safety net for the 2020/21 year (although Semester 2 IMC and safety-net for 2019/20 will continue to be applied for subsequent finalists).
- Maximum period of study / registration regulations can continue to be disregarded for 2020/21.
- Examination parameters for Semester 1 2020/21 (Paper 3):

Each exam has a 24-hour window in which it can be completed (but is designed to be completed within a normal exam timeframe), with up to two exams being sat within the same 24-hour period (and not normally more than three within a 48-hour period). This option was approved by ULTQC because it is not dependent on Inspera (the new assessment platform) being ready (i.e. Moodle can be used instead). Also it was the approach used in Semester 2 and the Supplementary period and any lessons learnt can be applied to the 2020/21 academic year.

Department exemptions will be considered if an exceptional case is made, to be approved by the Director of Academic Registry, in consultation with the Deans. The Department of Mathematical Sciences has submitted an exemption request to allow a more limited fixed time window (3 or 3.5 hours) for Mathematics examinations (synchronously on Moodle or asynchronously on Inspera).

### Chair's action approval of:

- Special Programmes of Study / Assessment Arrangements (see Reserved business).
- Retrospective minor change to the assessment pattern for Semester 2 unit CM50282 for 2019/20 (approved 26 June 2020).
- Extension of availability of PA50235 (ECTS unit), associated with programme code TSPA-ADT10, until the end of February 2021 due to Covid-related delay to enrolment on the unit (approved 30 July 2020).
- Retrospective minor change to the assessment pattern for Semester 2 unit CM50262 for 2019/20 (approved 4 August 2020).
- Assessment changes to CM10310, CM30141, CM50279, MA10201, MA10202 and MA50258 for 2020/21 (approved 14 October 2020).

# 2963 DEPARTMENT LEARNING, TEACHING AND QUALITY COMMITTEE (DLTQC) MINUTES

The Committee noted the minutes of the meetings held on:

**Department of Mathematical Sciences:** 5 August 2020 (Paper 10).

Department of Physics: 9 March (Paper 11A) and 21 April (Paper 11B) 2020.

**Department of Pharmacy and Pharmacology:** 8 July (Paper 12A) and 7 October (Paper 12B) 2020.

### 2964 ANY OTHER BUSINESS

There was none.

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Present Professor M V Hejmadi Associate Dean (Learning and Teaching) (Chair)

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Professor M Jones Department of Chemistry Dr F R Laughton Department of Physics

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Mr J Withington Undergraduate student representative (Department of

Physics)

Professor S Ward Associate Dean (International)

In attendance Mrs M L Hallett Faculty Assistant Registrar (Secretary)

Apologies Dr F Bisset Head of Learning Partnerships

Action

# 2965 MINUTES OF PREVIOUS MEETING

The Committee approved the minutes of the previous FLTQC meeting held on 4 June 2020 (Paper 1), and there were no matters arising.

## 2966 NATIONAL STUDENT SURVEY (NSS) 2020

The Committee considered NSS 2020 (2019/20) headline results (Paper 4A), NSS 2020 results by Department (Paper 4B) and NSS Assessment and Feedback rankings (Paper 4C).

Bath came joint 7<sup>th</sup> in the UK and joint 2<sup>nd</sup> in England, with an overall satisfaction score of 88.32%, up by 1% on last year. Astronomy and Pharmacology performed very well for Overall Satisfaction, being ranked first out of the institutions with those subject groupings. Computer Science and Others in Biosciences are within the top five institutions for that subject grouping (and appear in the top 20% of the sector).

Student satisfaction with Assessment and Feedback was 66% which is significantly lower than other key categories and continues a downward trend over the past few years. Bath's performance is also poor when compared across the sector. An institutional level Task Group on Assessment and Feedback will be established. A TDF project focussed on enhancing staff and student understanding, engagement, and acting upon feedback has been funded for 2020/21 led by CLT and academic staff from several departments and involving student participants.

The Faculty needs to consider taking a more radical approach to changes to Assessment and Feedback. This has been a perennial problem with little progress made. In Paper 4C above the red line Departments would be in the upper half of their subject ranking. This has been flagged with HoDs at Faculty Executive.

The Chair asked the student representatives for their comments on Assessment and Feedback. Mr Withington explained that the main issue is timeliness and quality of Feedback. Mr Maharaj added that more detailed feedback helps students to improve for future assessments.

The Chair explained that staff need to ensure that i) assessment and feedback is appropriate, timely and good quality and ii) students are able to communicate their expectations of Assessment and Feedback. The Chair suggested creating a Student Advisory Board, involving students from across Departments, to advise DoS/Ts on Assessment and Feedback issues, barriers and synergies across the Faculty, and where to focus improvements.

Members suggested the following initiatives to help improve Assessment and Feedback:

- Further streamlining of assessment.
- Provision of regular formative feedback to help students improve for the future (as is the practice in Maths & Physics). It was acknowledged however that this increases staff workload, and student engagement with formative assessment can be low.
- Routinely returning marked exam scripts to students, rather than providing students with the opportunity to view their scripts, which is administratively burdensome and often has poor uptake by students, and/or providing generic feedback. This would encourage markers to improve the quality of annotations on scripts. It was acknowledged however that, again, this would increase staff workload. It was suggested that, to avoid potential issues with marked exam scripts being taken away by students, so being in the public domain, students be provided with exam feedback but without giving them back the exam script itself. B&B provided exam feedback (a short justification for the mark) for S2 this year in an Excel spreadsheet. Dr Rogers explained that for S2 in P&P this year some students (and External Examiners) were able to view annotated exam scripts in Moodle after results were released. Dr Rogers added that it would be useful to know what software platform and functionality will be available in the short and long-term to enable provision of exam feedback but without having to type feedback into an Excel spreadsheet / Word doc since this is clunky and brings with it risk of error. The Committee noted that feedback can be provided using a bank of frequently applied comments.
- Improving consistency of feedback. The Committee agreed that this requires an institutional approach.
- Communicating to students that degree outcomes prove Assessment and Feedback is effective.
- Ensuring feedback maps clearly to explicit marking criteria, e.g. through use of marking rubrics.

The Chair suggested that SCoPE, or another forum, could share ideas on improving Assessment and Feedback based on SSLC feedback on positives and negatives and top 3 aspects students would like changed.

The Chair reported that Stuart Redhead had been appointed to a temporary position to manage Inspera. By early November a decision will be made as to whether Inspera will be ready for Semester 1 assessments. The Chair confirmed that exams would remain as being over 24 hours regardless of whether Inspera is available. Therefore, Depts should continue with their assessment preparations as normal (the deadline for exam papers is 11 December); there will be little difference in terms of implementation whether it is Moodle or Inspera that is used.

The Committee noted that, while the 50% response rate threshold will remain, the Student Engagement Team will not be actively promoting, or asking Departments to promote, NSS next year.

### 2967 POSTGRADUATE TAUGHT EXPERIENCE SURVEY (PTES) 2020

The Committee considered PTES 2020 (2019/20) headline results (Paper 5). The Committee noted the low response rate (24.31%) but that this was above the national response rate (20%). There was a fall of 4.5% in Overall Satisfaction between pre- and post-lockdown responses. Bath's Overall Satisfaction for 2019/20 was 71%, down 6.5% from 2017/18 (Bath did not participate in PTES in 2018/19 as it instead participated in the Office for Students' pilot, trialling an NSS-style survey for postgraduate students, data from which is yet to be released). For the first time this year, Advance HE provided each institution with detailed rankings of their position and that of a selection of student demographics and cohorts for each of the survey sections. Out of 68 institutions ranked, Bath was ranked at the lower end.

## 2968 GENERAL PHARMACEUTICAL COUNCIL (GPhC) REACCREDITATION

The Committee noted the GPhC reaccreditation report for the Independent Prescribing programme (Paper 6A), the Department's response (Paper 6B) and confirmation from the GPhC that the conditions of reaccreditation have now been met (Paper 6C).

### 2969 FEEDBACK FROM COMMITTEES

### **Academic Programmes Committee (APC)**

The Committee noted the minutes of the meeting held on 23 July 2020 (Paper 7), in particular approval of:

- Withdrawal of BSc and MSci (Hons) Pharmaceutical Sciences and Drug Development with immediate effect (Chair's action approval on 28 February 2020).
- Renewal of the Collaborative Arrangement for the International Foundation Year contract / Programme Agreement with Bath College, from 1 September 2021 until 31 August 2023 (Chair's action approval on 2 June 2020).

### **Courses and Partnerships Approval Committee (CPAC)**

The Committee noted the minutes of the meeting held on 1 July 2020 (Paper 8), in particular approval of:

- Completion of conditions for approval of MSc Mathematics with Data Science for Industry for 2021/22 (Chair's action approval on 10 June 2020).
- Renewal of the Collaborative Arrangement for the International Foundation Year contract / Programme Agreement with Bath College, from 1 September 2021 until 31 August 2023.

### **University Learning, Teaching and Quality Committee (ULTQC)**

The Committee noted the minutes of the meetings held on 5 June (Paper 9A) and 21 July (Paper 9B) 2020.

### 2970 ANY OTHER BUSINESS

There was none.