EPCC Submission to Board of Studies

1. EPCC-specific course codes (see below)

As discussed with SG, to better distinguish 'true' Informatics courses from EPCC courses we propose to create replacement course catalogue entries for all EPCC courses using the following schema:

- EPCC prefix for all on-campus teaching
- EPCD prefix for all online teaching (to reflect INFD split as already exists)

Not only will this make the distinctions easier for Students and Student Support teams for course selection, but it also provides a better distinction for QA processes.

This would affect all of the following course codes as currently exist and would thus require swapping them like-for-like on existing DPTs:

INFD11021	Performance Programming
INFD11022	Advanced Message-passing Programming
INFD11023	Advanced Parallel Techniques
INFD11024	Design and Analysis of Parallel Algorithms
INFD11025	Numerical Algorithms for High Performance Computing
INFD11026	Project Preparation (HPC and HPC with Data Science)
INFD11027	Project Preparation (DSTI)
INFD11028	Dissertation (HPC)
INFD11029	Dissertation (HPC with Data Science)
INFR11163	Message-Passing Programming
INFR11164	Dissertation (HPC with Data Science)
INFR11166	Dissertation (HPC)
INFR11167	Performance Programming
INFR11168	Parallel Design Patterns
INFR11169	Advanced Message-passing Programming
INFR11170	Advanced Parallel Techniques
INFR11171	Data Analytics with High Performance Computing
INFR11172	Software Development
INFR11173	Project Preparation
INFR11174	Numerical Algorithms for High Performance Computing
INFR11175	HPC Architectures
INFR11176	Fundamentals of Data Management
INFR11177	Programming Skills
INFR11178	Threaded Programming
INFR11179	Design and Analysis of Parallel Algorithms

No further changes to DPTs are proposed except for one, see point 3, below and no major changes are proposed to these courses which otherwise requires a New Course Proposal. Some minor changes are proposed (see below).

2. Changes to EPCC mid-Semester assessment

In response to COVID-19 disruption during Semester 2 of 2019/20, EPCC, at the encouragement of then School of Informatics Director of Teaching Prof. Stuart Anderson, introduced a number of Class Tests as coursework to break up high-stakes end-of-Semester exams worth up to 100% of the course. The model was implemented by in effect setting one question from the final exam as a short answer question coursework.

While the model has had some success in providing further opportunities for formative feedback, it has unfortunately caused a major dip in student engagement with classes in the middle of the Semester due to a perceived need to revise for these class tests (despite them not being written to require revision for students up to date with class material). This has in fact worsened the student feeling of a 'crunch' at the end of the Semester, rather than improving it, as students spend Weeks 7-9 catching up with Weeks 4-6 in order to make meaningful headway with end of Semester 1 coursework.

We have identified 4 issues via discussion with student reps and review following January's exam board, which we propose to address:

1. Class Tests being worth 25% is too high as a weighting as this causes students to feel pressured by these. For courses where suitable we propose to reduce the class test weighting to 10-15% and increase the weighting of the final exam.

2. Some courses do not lend themselves as easily to such a 'modified' Class Test model as they are more modular. Instead we propose alternative assessment instead of the class test via submission of existing practical exercises (which should already be undertaken) for assessment.

3. While additional assessments (even formative) are intended to spread the student workload out, additional assessments do appear to make student time management more difficult. Therefore, reducing the overall number of submissions is seen as beneficial to better enable students to 'see the big picture'.

4. The Programming Skills and Software Development courses (both compulsory) in Semester 1 and Semester 2 respectively both have a great deal of material relevant to the other. Students acknowledge their importance in the programme, but feel that the Programming Skills assessment in Semester 1 requires more time than Semester 1 allows to be of best benefit to the students (see point 3, below). External students, however, feel the opposite and that the assessment is very well placed in their schedules.

We propose to deliver exact proposals for this to the next Board of Studies (changes as if existing courses).

3. New programme-specific 20 credit integrated Programming in Software Projects course

In effect this is simply a running together of two 10-credit courses into a single 20-credit course. We propose:

1. Leaving the existing 10 credit options available for external students (greatly increasing capacity for students from Informatics, PPLS, Biological Sciences, Physics and others – many of whose students have been turned away due to capacity issues in recent years (even pre-COVID). This also enables student on HPC/HPCwDS with potential to take a DPT concession for only one 10 credit course to still do so and to just take the other 10 credit course rather than the full 20 credit course.
2. All existing material will be fully covered and all existing Learning Outcomes will be fully assessed by the single 20 credit course, however:
    a. Additional case studies relevant to HPC/HPCwDS may now be used
    b. Fewer submissions overall as all Learning Outcomes may be assessed by a single assessment with submissions across Semesters 1 and 2 rather than split artificially into two separate courses.
    c. Assessment submissions can be better spread out to avoid the 'peak' periods at the end of the Semesters.
    d. When Programming Skills used group assessment (prior to 2018/19), student feedback was that it was a really good way to meet and mix with classmates in Semester 1, but since then (when the groupwork element switched to SoftDev as its material better lent itself to group assessment) students have been less keen on this. This approach gets the best of both worlds without majorly increasing overall programme exposure to group-work and ensuring group marks on a transcript are offset by individual contributions within the course.
3. Submitting a final course proposal for this for March's Board of Studies (once we have had time to finalise the proposal).