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	For completion by External Examiner:		
Name of External Examiner:	Martyn Dade-Robertson		
Home Institution / Employer of External Examiner:	Newcastle University		
Programme and / or Modules Covered by this Report	Computational Methods in Architecture		
Academic Year / Period Covered by this Report:	2019/20	Date of Report:	19/06/20

Please complete all information in the spaces provided and submit within **six weeks** of the Examining Board (the dissertation stage Examining Board in the case of postgraduate Master's programmes).

Please return this Report, in a **Microsoft Word format**, by email to: [externalexaminers@cardiff.ac.uk](mailto:externalexaminers@cardiff.ac.uk).

**Please note this form will be published online and should not make any reference to any individual students or members of staff in accordance with the General Data Protection Regulation (2018).**

Please extend spaces where necessary.

**1. Programme Structure** (curriculum design, programme structure and level, methods of teaching and learning)

The programme remains a strong one with the ethos of 'rigorous creativity' shown in the work. There is a very good range of modules on offer which provide an excellent skills base – crossing between engineering, computer science and architecture as well as challenging more able students. The range of students, in terms of disciplinary background gives the course additional vibrancy and the studio-based approach fosters a sense of community with students noting the provision of a shared space as being very important (in the pre-Covid period). The module levels also seem to be appropriate and the length of assessment projects seems appropriate for module weighting.

Covid-19 has clearly posed challenges for the students and teachers, however, in terms of the amount and level of teaching – it appears that the course has adapted very well with a relatively seamless transition to the online mode and this has not affected the quality of outcome or the learning objectives for the students. The only module which seems to have been adversely affected is the CMT811: Computational Design for Fabrication with, for obvious reasons, students unable to access fabrications facilities. However, appropriate mitigations have been put in place and while the student experience this year has clearly

suffered the student's I spoke to emphasised how flexible and communicative the module tutors and course leadership has been throughout.

A couple of points for consideration but which do not require a response:

- In conversation with the students for the past two years a consistent concern has been raised about the relevance of a number of the modules taught externally to the Architecture School. In particular CMT115: Python for Computation. Not all modules taken by students are going to be obviously or immediately relevant but ensuring some clear linkages and assessments which build towards a common purpose is worthwhile. I recognise that this was a comment I made last year and that the programme leadership responded that they need to draw on a range of modules throughout the university. However, the basic data processing task being offered in this module could be exchanged for something more architectural or design based. A number of students suggested that there were a number of optional modules which should be compulsory and some compulsory modules which could be optional. I can't comment further on this but these issues are worth keeping under review.
- When reflecting on distance learning the students (in line with similar comments we are getting from students on our own programmes) have suggested that there are elements of online teaching that are worth considering making permanent. This seems especially true in areas such as technical teaching in programming and software where the ability to follow step by step tutorials online at their own pace is beneficial and where this frees up tutor time for one to one contact, project development and theoretical background of the processes they are learning.

**2. Academic Standards** (comparability with other UK HEIs, achievement of students, any PSRB requirements)

The grades which I saw seem in line with national and international standards. I asked to see examples of high middle and low grades and these were in line with my expectations. There are some blind spots - which I will reflect on below, so I make this comment with caution. I was not able to review high middle and low grades for all modules and was not able to see the feedback in the samples given to me.

**3. The Assessment Process** (enabling achievement of aims and learning outcomes; stretch of assessment; comparability of standards between modules of the same level)

The assessments seem fair. I am not able to comment on the process as I didn't not receive any information on module specific policies for, for example, double marking, blind marking etc. However, I can confirm that there is both comparability between modules and that the assessments offer a level of stretch for the students with some very good quality of the work.

**4. Examination of Master's Dissertations (if applicable)** (sample of dissertations received, appropriateness of marking schemes, standard of internal marking, classification of awards)

NA – Dissertations will be reviewed at the end of 2020.

## 5. Year-on-Year Comments

[Previous External Examiner Reports are available from the Cardiff University Website [here](#).]

In my first year – I made a comment about the provision of review materials which was hampered by technical problems and left me a relatively limited time to review the work during the examination. This year the process was much more straightforward, and folders were set up which contained (in many cases) examples of High Mid and Low assignments as well as module and assessment descriptors as I had requested.

This was undoubtedly a challenging year and my comments recognise that the full 'examiner experience' was not possible this year with a substantially increased workload for both academics and PS staff. My requests were rapidly responded to – especially around updates to the documentation, my requests for mark sheets, and to have the opportunity to meet (virtually) the students.

However, I did feel that there was information that I need to fulfil my role which was missing. It is important for me to establish a minimum requirement in terms the documentation and access made available by default. As a rule I would like to:

- Always have the opportunity to talk to students on the program - *this was available this year but only after request.*
- All module outlines and descriptions of assessments - *this was available to me this year.*
- An example of top, middle and bottom grades for the assessed work - *this was only partially available to me with:*
  - no assignments for CMT811 or CMT115 (which I recognise may be covered by a separate external examiner);
  - only a medium assessed assignment was given for ART805;
  - only a 'high' assignment was given to me from ART804 with the second submission marked as "unknown".
  - ART801 I was given two 'high' and one low.
  - ART042 I received a high and low but no medium.
- Examples of feedback sheets (ideally related to the samples of work) – *this was not available to me this year.*
- Grades for the cohort of students – *this was made available to me this year but only on request and not for all modules.* Ideally this would also be given in a format that allows me to make quick comparisons across different modules – to detect where, for example there may be modules where performance seems have dipped or seems over generous compared to other modules.
- An explanation of the marking strategy for different modules including information on the use of double marking and anonymised assessment – *this was not available to me this year.*

While I am in my second year and so now have some familiarity with the program a brief overview presentation from the course director would also be welcome. In theory it is possible for me to obtain all the information I need on the structure and changes to the course from the published materials, however, inevitably this is difficult to wade through and a 'refresher' on the overall structure of the course would be welcome in the June examination period.

**6. Preparation for the role of External Examiner (for new External Examiners only)** (appropriateness of briefing provided by the programme team and supporting information, visits to School, ability to meet with students, arrangements for accessing work to review)

NA

**7. Noteworthy Practice and Enhancement** (good and innovative practice in learning, teaching and assessment; opportunities for enhancement of learning opportunities)

There are examples of exemplary practice that are related especially to the programme. The fact that the course accommodates engineers and designers from a broad range of backgrounds is a particularly strong aspect of the programme and was highlighted by the students as an important part of their experience. Before lockdown the provision of studios was also seen as a key strength of the project and this allows the development of cohort identity and rich interdisciplinary interactions.

I think that the response of the leadership team to the crisis is also worthy of note. That I can detect no real decline in standards of learning outcomes is a key measure. In addition the students have commented on the accessibility and responsiveness of the team overall.

**8. Appointment Overview (for retiring External Examiners only)** (significant changes in standards, programme/discipline developments, implementation of recommendations, further areas of work)

NA

**9. Issues for Response**

To assist with a timely and detailed response to your report, we would be grateful if you could briefly summarise any issues referred to above that you would like to be specifically addressed in our institutional response.

1. Action to ensure comments on provision of important materials for future examinations (see section 5).