SoI Course Proposal Review Form

Version: Nov 2021

Reviewer Name: Michael Herrmann

Name of Proposed Course: Knowledge Graphs

Date of review: 24/11/21

Instructions to reviewers: please read through the course proposal and answer the reviewer questions below. Return your completed review form to iss-bos@inf.ed.ac.uk by the review deadline. If you are new to the School or to reviewing course proposals, it may help to read some of the guidance provided to course proposers, mostly included as prompts in the course proposal form itself (including links to external reference materials).

1 Course overview and case for support (Sec 1 of proposal)

1.1 Course name and acronym

Given the course description, are the name and acronym appropriate, or would you suggest any changes?

This seems to be a fascinating course that I recommend accepting. The title is should be consistently "Knowledge Graphs", and the acronym is fine.

1.2 Summary and Description

Do the Summary and Description make the course sound attractive, including a student-friendly overview of the learning aims, content, and style of the course, and (if need be) who the course is aimed at? Are there any issues with content or wording that you feel should be addressed?

"machines" may be too much of an insider term, also it is not clear to what extent machines are going to be used in the course. "An underlying feature of many AI systems concern*s* ..." can be formulated more clearly. The expression "used extensively by most of the world's leading IT companies" can be motivating, but I don't think should be used in the course summary. Can the summary include a sentence that explains briefly what a knowledge graph is (e.g. compared specifically to semantic network or, more generally, to databases or to knowledge representation)? The abbreviations may not be helpful for the students, and also the expectations may not need to be mentioned here (perhaps rather in the prerequisites: Students are expected to be able to study from a textbook etc.)

1.3 Target audience and contribution to the School's curriculum

Please comment on the case made for this course and its contribution. For example,

- Is there good evidence that it would attract students, or is otherwise necessary (e.g. strategically)?
- Do you have any concerns about how it would fit in with other courses (or even concerns about other courses that come to light here)?

- Is the description of the target audience consistent with the requested SCQF level? Are there any cohorts of students (degree programmes or years) that may not have been considered, including students from outside the School?

Note that even if a course is academically sound, BoS can still reject it if the case for support is not convincing (ie if developing and delivering the course is unlikely to be a good use of resource).

The course seems to be a good reinforcement of the ILCC teaching.

1.4 Learning Outcomes

Please comment on the Learning Outcomes. Questions to consider include:

- Are the verbs specific enough that it is clear what type of assessment could be used for each Learning Outcome, and what level of cognitive skill/understanding is needed (e.g., Bloom's taxonomy low levels such as recalling or defining, medium levels such as applying or explaining, high levels such as evaluating or designing)?
- Are the Learning Outcomes appropriate to the level of the course, and at an appropriate level of generality?
- Are there any LO's that you feel are missing, or other suggested changes?

Here the abbreviations are less critical. Perhaps it could be mentioned as a 5th outcome to what applied work the students would be enabled by this course.

1.5 Other comments

Do you have any other comments about anything in Section 1 of the proposal?

It seems that the CW does not involve working with a computer, is this correct?

2 Course delivery, assessment, resourcing (Sec 2 of proposal)

2.1 Use of time

After reviewing the proposed content, use of timetabled activities, and plans for assessment, please comment on the use of time, in light of the guidance to use no more than 6-7h/week for a 10pt course, or 13-14h/week for a 20pt course, including all course activities. For example,

- Does the course appear to be keeping within those guidelines, is it over-ambitious, or is that difficult to determine based on the proposal so far (and if so, why)?
- Is the balance of activities reasonable (e.g., will students have enough self-study time outside of timetabled activities and assessment)?
- Do plans for support activities (labs, tutorials, etc) look appropriate or could they be improved?
- Are there any inconsistencies between what is stated in the text, and the "breakdown of activities" table? (This table is notoriously confusing; if you're not sure just say so.)

Given the variability in the students' prior programming experience it may be useful that there are more lab or drop-in sessions available, but this will depend on how the CW is structured and prepared. Also, a revision session might be considered to be included in the teaching activities.

2.2 Assessment and feedback

Aside from the amount of time spent on assessment (discussed above), are there any other issues with the plans for assessment and feedback? For example,

- Is the number of items of assessment reasonable (normally, no more than 1 summative coursework for a 10pt course, or 2-3 for a 20pt course)?
- Is it clear which learning outcomes are assessed by each piece of assessment, and that all LOs are covered?
- Are there any concerns about whether the assessment will scale effectively if the class is larger than expected, or whether the assessment design will make it difficult to align marks with the Common Marking Scheme (e.g., due to automarking)?
- Do the plans require tight turnaround times which may not be feasible?

It is appreciated that "raw marks will be given", which, if I understand it correctly, should be the standard for all courses.

2.3 Decolonisation, inclusion, and ethics

Are you satisfied with the plans for making the course inclusive and decolonising the content and delivery (including designing for accessibility; gender, racial, cultural, and other issues)? Do you have any suggestions for improvement in these areas?

It should be considered to what extent the course is shaped by the interests of the world's leading IT companies, and whether the introduced methods reflect appropriately also legitimate interests of users (e.g. related to data safety, privacy, and avoidance of biases).

If the course proposal does not already mention social or ethical issues related to the course topic, should these be addressed in the course somehow? This is especially relevant for 20pt courses. If so, please provide suggestions if possible. *(Note that if others agree, the proposer may be asked to modify the course description, Learning Outcomes, and/or Graduate Attributes, as appropriate.)*

As a 10 point course the above-mentioned ethical concerns should be considered only marginally, but it could be discussed with lecturers of the institute how ethical aspects are covered by the course portfolio.

2.4 Resource requirements and other comments

For now we will mainly have SG and/or BF evaluate the resourcing section, but if you have any comments about that, or anything else to say about Sec 2, please say so here.

Can the marking for CW and exam be done in a total of 1h? If the CW is for single students and the number of tutorials/lab sessions is small, it may be useful to think about a more interactive element in the course.

3 Sample course materials and publicity (Sec 3 of proposal)

Do you have any comments about this section? *(You may wish to consider whether the materials provided teach or assess the types of learning outcomes listed in Section 1.)*

As the learning outcomes are all formulated as Understanding (plus other outcomes), it would be good to see how this understanding is achieved and evaluated by the proposed form of assessment.

4 Requisites, timetabling, and other details (Sec 4-5 of proposal)

4.1 Delivery period and requisites

Do the delivery period and co-/pre-requisites present difficulties for any particular cohort of students? If so, who? *(Consider all years/degrees for whom the course is intended, both UG and PGT. Note that most PGT students will not have taken any of our UG courses, so "other requirements" or recommended prerequisites should often be used instead of required prerequisites).*

I'm not able to comment on this.

4.2 Other requirements

For courses open to PGT students or other courses without formal prerequisites, does the "other requirements" box provide sufficiently specific guidance about required background in mathematics, programming, or other areas, and is it reasonable to expect most target students to have this knowledge? Please highlight any concerns.

Given the different background of the students, it may be useful to think about some specification of prerequisites. Also, if the course is qualified as programming-light, it may be attractive to students without much programming experience, so it should be made clear whether students can get a reasonable mark without programming or a good understanding of the course content without a good understanding of the main principles of programming.

4.3 Tags

If this is a level 9-10 course, do the chosen tags (Sec 5) seem appropriate? If not, please suggest changes. (SG will also review this section, in case you're not sure.)

n/a