

# Guidelines for the development of online courses in the School of Informatics

The working group for creating the guidelines for the development of the online courses in the School of Informatics was formed upon the request of the School's Strategy Group in September 2015. The group consisted of the individuals who had been involved in the development of online and distance courses in the schools, had experience in online and distance education research, practice, and institutional support (see Appendix A). The working group reviewed the existing experience and needs of the academic staff members in the school in the development of online courses. The group identified a number of issues that have been faced in the existing experience in the development of online courses in the school - e.g., learning technologies used, pedagogical consideration for student online engagement, quality assurance and models of assessment in online courses, relations with existing online courses, needs to utilize specialized software and hardware technologies in the courses. The group also drew from the experience from the Master of Science in Digital Education (represented by Profs. Sian Bayne and Dragan Gasevic) and Information Services (represented by Amy Woodgate) in the development, support, and delivery of online and distance courses.

The working group produced the following deliverables and recommendations:

- to develop guidelines that will supplement the existing course proposal template used by the Board of Studies. The guidelines will supplement existing and add new questions that are important to be addressed in the development of online courses. These supplemental questions should also guide the developers of new online courses. As an outcome, the working group produced two main deliverables:
  - the process for the development of online course (Appendix B) outlining the major milestones and critical activities to be address.
  - the suggestions for the extension of the BoS template for new course proposals (Appendix C). The suggestions are to guide the process and to be used as a checklist by developers of new online courses and by the BoS.
- to assure that good practice is followed and timely and comprehensive information provided to students and consistent with [Programme and Course Handbooks Policy](#), course handbooks should be produced for each course. Examples of the handbooks used in online programs and courses in other schools in the university (e.g., <http://hub.digital.education.ed.ac.uk/handbooks/>) will be supplied. Likewise, a handbook for online courses in the School of Informatics should be developed similarly as done for other programs (e.g., <https://www.wiki.ed.ac.uk/display/mscdetech/>).

- to set up a platform that will be used for sharing information and experience in the development of online courses in the school. The recommendation to make use the school Dupal site and confluence Wiki (<https://www.wiki.ed.ac.uk/display/Informatics/Distance+Education>).
- to organize a series of events between Information Services, Institute for Academic Development, and the MSc in Digital Education program to create opportunities for the Informatics staff members for professional development in online course development and teaching.
- to create a business case for the appointment of a learning technologist in the school due to the rapidly increasing need to have a professional in instructional design and digital education who will assist and guide school members in the development and delivery of online courses.

The group had initially also considered the inclusion of massive open online courses (MOOCs) in the guidelines for the development of online courses. However, due to the different nature of MOOCs and already available resources in Information Services for their development, the group decided to focus primarily on online courses that will be offered for credit in the school.

## **Appendix A - Working group members**

- Sian Bayne, Moray House School of Education
- Bob Fisher
- Bjoern Franke
- Dragan Gasevic, chair
- Nigel Goddard
- Ewan Klein
- Alan Smaill
- Amos Storkey
- Austin Tate
- Amy Woodgate, Information Services
- Maria Wolters

## **Appendix B - Process of the online course development**

### *Phase 1: Target audience and course scope*

- P1.1 Definition of target audience and the survey of the course demand
- P1.2 Description of how the course contributes to the teaching portfolio
- P1.3 Outline of the relationships with on-campus courses

### *Phase 2: Course design*

- P2.1 Definition of learning outcomes and their feasibility and relevance for the online course delivery
- P2.2 Specification of assessment activities and their relevance for online delivery
- P2.3 Definition of the course activities
- P2.4 Specification of technology requirements to support learning outcomes, assessments, and activities

### *Phase 3: Quality assurance and support*

- P3.1 Quality assurance for the course
- P3.2 Description of content planned to be used in the course
- P3.3 Outline of the copyright considerations
- P3.4 Estimation of tutor/instructor workload
- P3.5 Sharing of content, technology, and experience

Appendix C contains detailed instructions that guide the process of the course development in each of the three phase and provides specific questions that need to be addressed in the development process.

## **Appendix C - Supplement to the BoS Course Proposal Template for Online Courses**

### *Target audience and demand (supplement to question 1b) - P1.1*

- Provide a brief rationale for this course taking place in online delivery mode
- Provide a description of the target audience for the online course
- Report on the findings of the market demand for the online course. This activity should be completed in collaboration with Information Services.

### *Contribution to the teaching portfolio (supplement to question 1c) - P1.2*

- Outline how this online course contributes to the overall teaching portfolio of the school

### *Relationships with on-campus courses (new question 1c) - P1.3*

- Are there any on-campus courses this proposed online course builds upon?
- Are there any relationships between this proposed course and some existing/in development on-campus courses (e.g., reuse of some of the content, some shared activities, and shared instructional/tutorial time)?
- If this online course builds on the existing on-campus one, what considerations and arrangements are planned for this online course (e.g., content is reused and interaction between on-campus and online students is planned)?

*Learning outcomes (supplement to question 2e) - P2.1*

- Specify if and, if so, how the online course complements learning outcomes if there is an existing on-campus course
- A good example of guidelines how to write learning outcomes and which verbs to avoid (e.g., understand) can be found here:  
<http://www.library.illinois.edu/infolit/learningoutcomes.html>

*Assessment (supplement to question 2e - Assessment Information) P2.2*

- Outline formative additional assessment and feedback opportunities provided to students
- Describe collaborative assessment activities and how they will be organized in the online delivery mode
- Outline formative and summative feedback students will received in the course assessments in the online delivery mode
- Specify the connections of the planned online assessments with specific learning outcomes

*Activities (supplement to question 2e - Breakdown of Learning and Teaching Activities) - P2.3*

- Describe each activity planned for the students in the online delivery model
- Outline the engagement strategy planned to be used in the course, given the differences in the mode of interaction in online courses
- Describe what synchronous (if any) and asynchronous engagement activities are planned with the students in order to increase their sense of belonging to the course group, reduce sense of isolation, and stimulate regular and systematic engagement throughout the courses.
- Provide the breakdown of the workload specific for students for each of the planned activities (including readings and regular engagements) and assessments planned in the online course delivery

*Technology requirements (new item under question 2e - Technology Requirements<sup>1</sup>) - P2.4*

- Specify which technologies will be used in the online course (e.g., Learn) for each specific online activity outlined in the course
- Briefly outline the pedagogical value for the use of each of the individual technologies
- Outline which technologies will be used for assessments in the online course
- Describe course-specific software/technology (e.g., development platform or compiler) that goes beyond commonly used learning technologies that will be used in the course (in any)

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<sup>1</sup> to be included right after the Breakdown of Learning and Teaching Activities item

- Outline if any specialized hardware will be used in the online course
- For any specialized technology/hardware outline if some special requirements are needed (e.g., students need to acquire hardware in advance).

*Quality assurance (new item under question 2e - Quality assurance<sup>2</sup>) - P3.1*

- Outline quality assurance strategy for the online component of the course followed in the course regarding activities (e.g., regularly engage students), assessment (e.g., provide formative feedback, authenticate students for examination, scheduling of the exams), and content and technology planned to be used in the course

*Content (new question 3e) - P3.2*

- Describe what content will be used in the online course and how this is suitable for the online course delivery
- Outline considerations made for online learners to adopt content and activities if some content and/or activities from the related on-campus courses will be reused (e.g., lecture recordings).
- Describe whether students are expected any purchase of books and/or technology necessary for this online course and what arrangements will be needed through E-reserve  
(<http://www.ed.ac.uk/information-services/library-museum-gallery/using-library/request-resources/ereserve>)

*Copyright (new question 3g) - P3.3*

- Describe if there are any copyright and licensing considerations for this online course (e.g., access to an e-textbook, publications, or source code)
- Outline whether the resources developed for the use the online course will be made available as open open and what licensing will be pursued (CC-BY is recommended as the default licence ).

*Tutor/instructor workload (supplement to question 4c) - P3.4*

- Provide a breakdown of the anticipated additional workload for the course instructor/tutor in the online course delivery - both in relation to the course development, activities planned, regular engagement with the students, and assessments planned

*Sharing content, technology, and experience (new question 4d) - P3.5*

- Share the course proposal form approved by the Board of Studies and the course handbook via <https://www.wiki.ed.ac.uk/display/Informatics/Distance+Education>
- Share how resources are used and what experience is gained in the development and offering of any new/existing online course with the colleagues in the school via <https://www.wiki.ed.ac.uk/display/Informatics/Distance+Education>

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<sup>2</sup> to be included right after the Technology Requirements item