Course Design:
Key points and considerations in Informatics
June 2021

This document borrows heavily from the “key points” listed on the IAD page on Course and Programme Design. Other links on that page are less relevant for what most SoI staff will need. Instead, we suggest that you read through the School’s Course Proposal form early in your design process, as it includes brief guidance and links to relevant external resources, many of which expand on the general points below. If you are new to the School, we also suggest you talk to a colleague (or several), to get a better idea of typical delivery and assessment patterns.

First steps and big picture

- First, consider: Who is the course targeted at? Who else might also take it? What do these students need and what are the likely enrolment numbers? The answers to these questions should inform your learning outcomes, design and scaling of activities and assessment, as well as the content. Have you done any preliminary consultation with students to gauge interest? If your course is a re-design or re-factoring of existing course(s), how are you taking into account feedback from students in prior years?
- Next, ask: Where do you want your students to be at the end of the course? E.g., do you want them to think like a researcher? To better understand diverse needs and perspectives? To be more informed and critical citizens? To be prepared for a changing workplace?
- Once you’ve got the big picture, aim to draft clear and helpful learning outcomes. These outcomes should say what students will be able to do at the end of your course. Then you can design backwards from these outcomes to make sure your assessment really tests what you want students to learn and your teaching fits with this picture. (This brief guide to writing Learning Outcomes explains the form these should take.)
- Remember to design in inclusion for all students from the very beginning. Are all of your students’ backgrounds represented in your course materials? Are you following University guidelines for mainstreaming learning adjustments? The University recommends that Schools involve the Student Disability Service and disabled students and staff during the course and assessment design process to make sure designs are inclusive from the outset.

As you are starting to consider the questions above, please make sure you (or the coordinator of your group, if your proposal is part of a larger set) contact the DDoLT(Curriculum) with the information listed on p2 of the Course Proposal Form. This can save everyone a lot of time by helping to determine whether a full proposal makes sense.

If you are continuing with your proposal, please review the Course Proposal form and relevant Board of Studies deadlines to help you target your planning. The questions below
are additional prompts and guidance to help you as you work on the proposal. These need not be approached linearly, you’ll probably need to iterate and refine.

**Context and consultation**

- Think carefully about progression and how your course fits with previous and later courses. How will your students be able to use the feedback or skills gained from your course to feed into later courses?
- Ask around for existing information about students in your context. Is there feedback on other related courses which will give you a sense of students’ needs? Can you learn more about your students’ prior learning experiences? What can you find out about important dimensions of student diversity in your area?
- Can you meaningfully include other academic staff or ILTS learning designers in your course design?
- Can you invite some current or previous students to a focus group to ask for their perspectives and ideas for the course, or specific aspects of it?

**Planning learning activities and course content**

- Learning is usually best where students are actively involved in processing and making sense of what they are learning and where the learning feels authentic and meaningful for them. What will your students do during your course? Can you include learning activities that mirror authentic practice in your field?
- A common mistake is to focus planning too much/too soon on content (what topics must be covered) and to be overly ambitious (pack too much in). Try considering instead: what is the absolute minimum set of topics you need in order to reach your learning outcomes, and how does each topic contribute to those outcomes?
- Remember that to maintain a 35-40h work week, we can only expect students to spend 6-7h/wk in total for each 10pts, including contact hours. Many of our 10pt courses are overloaded with content and assessment: a 10pt course can really only be a taster, not a comprehensive treatment of an area!\(^1\)
- Although a detailed week-by-week plan is not required at the stage of course proposal, please do consider what a student’s typical week would look like in your course. How many hours will be spent on attending lectures, labs, or tutorials? Working through exercises or preparing for tutorials? Reading, self-tests, keeping up with class forum, etc? Once you’ve considered all non-assessed activities, how much time is actually left to work on assessments? If need be, consider making more room by reducing other time commitments in some weeks or allowing more time between release and submission. Even better, make your assessments short!

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\(^1\) You may have heard that a 10pt course is 100h, but that is misleading. The 100h includes programme-level activities and overheads, such as induction week, and assumes full use of the exam diet, which is often impossible. 80-85h for a 10pt course is more realistic.
Planning assessment and feedback

In Informatics, we tend to have too much summative assessment: lots of practical assignments, which overburden both students and markers. Students are also often unhappy with the timing and/or quality of their feedback. Please consider the points below to help address these issues.

- Think carefully about assessment and feedback design from the outset and aim to address assessment as, for and of learning in each course. (See Engaged in.. assessment and feedback (PDF) for more details). Will your students understand how their feedback is relevant? Will your students get to practice new forms of assessment before they become high stakes?
- Consider also IAD’s Five basic principles for feedback and Tips for improving feedback.
- In general, 10pt courses should have at most one summative coursework (or two, if no exam), and 20pt courses should have at most three (or four, if no exam).
- Can you make your assignments simpler and shorter for both students and markers? Could students work together on an early formative coursework (or test) that has a similar style to the summative coursework (or exam), and/or review and discuss each other’s written solutions or code, with reference to marking criteria?
- If you’re calibrating the amount of time students will spend on coursework, remember that they haven’t yet learned all the material (or tools). It will take them many times longer than it might take you or your TA!
- Prompt feedback is important for learning, yet due to large class sizes and students with extensions and learning adjustments, it is often impossible to return feedback on summative assessments quickly. This is another reason to think about well-designed formative assessment, whether it covers different material than the summative work but has a similar style, or provides early feedback to students on a preliminary version of work that will eventually be summative he assessed (e.g., an early outline, draft, or design document).