

Guidelines for teachers

In our research and work with capstone staff in higher education institutions there were common questions asked by staff who were new to designing capstones, arising from some of the less familiar capstone concepts. Many of these topics are not unique to capstones, but as with the institutional guidelines have heightened importance in the capstone context. Drawing on the capstone survey, interviews and case studies, as well as feedback from the capstone network and in workshops, we have iteratively refined a set of general guidelines for staff new to teaching capstones. These guidelines respond to questions were particularly step by step or 'how to' in nature. More general or 'what is' questions and topics can be found in the FAQ section and resources pages on the capstone website.

1. Start with the end in mind

When designing your capstone, use discipline threshold learning outcomes and program learning outcomes as the starting point. Although a capstone can't and shouldn't be designed to try to evidence every piece of knowledge or skill in an entire degree, they commonly address most of the higher-level program learning outcomes. They are especially good at meeting the broad capability expectations such as selecting and applying discipline knowledge, planning and organising work, self-management, teamwork, and communication. Starting your capstone learning outcomes by using existing program-level learning outcomes can make the design job much clearer.

2. Choose a model that works for your context

When designing the model you will use, consider the context in which you are working, and the industry or academic environment into which students will move. Not all capstones have to be live consultancies with clients, or complex simulations. Review other cases in a range of disciplines, and test out ideas that seem a good fit for your context. Whatever model you choose, consider the kinds of activities and assessments that will best provide students with opportunities to authentically enact and test a wide range of capabilities they will need in their next life stage.

3. Provide underpinning structure

While whole of program design can be used to ensure that students are prepared for the capstone experience, this may not have occurred prior to capstone design. Students will need structures and steps that assist them to develop independence, and this is especially the case where prior coursework has not provided preparatory experiences. Set stages or iterations that allow them to build capacity over time, be prepared to support students with 'just-in-time' learning, and provide resources to support this process and clarify your expectations. Templates, guides and examples for basic requirements (such as teamwork processes or report structures) can enable students to move quickly from superficial to deep problem focus.

4. Explicitly give students ownership

Taking ownership of the process is an important part of the capstone experience. Students working through the capstone experience should ultimately be able to claim the challenges and resolutions as their own. Not all students will automatically understand, be confident or comfortable with this situation, particularly if it is a new experience for them. It is therefore important to explicitly design the capstone experience as one that they will own, and in delivery as a teacher, to step back from being a purely authoritarian voice to become an expert mentor.

5. Build in regular feedback from a range of sources

Although capstones usually have limited didactic delivery, students still require guidance and ongoing feedback. The more developmental feedback opportunities you can provide the better. These don't all have to be from the lecturer or tutor. Give students the opportunity to critique their own and others' work, to draw on feedback from external partners and to respond to those critiques with improvements in iterations of evaluation and development. Learning to seek out, engage with and respond to constructive feedback is an important long-term skill. Providing feedback to others is a critical activity for developing independent judgement.

6. Recognise the benefit of uncertainty and creativity

Capstones engage students in complex and authentic experiences that are also often inherently messy. This can be a very uncomfortable and confronting experience. Explicitly design activities in which there are no 'right' solutions, encourage students to collaborate with each other, to work through problems and seek creative solutions, and to change paths where necessary. Allow space for products to fail during the process, and even in the final assessment – reward resilience, ongoing problem-solving processes and depth of critical inquiry as much as the degree to which final products are successful.

7. Link to the future

Engaging students in the capstone experience usually requires consistent and explicit links between the learning outcomes, activities, expectations and their possible future roles. While it can seem obvious to us, students don't always know why we consider it important that they, for example, are able to work effectively with others, or examine a problem from multiple perspectives. The more authentic the activities and clearly their purpose is explained, the easier this link will be to make. Bringing in external partners to discuss their roles and expectations can also assist in reinforcing the relevance of the experience.

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