

How Course Design Affects Learning

Science of Learning

Best Practices for Teaching and Learning

Course design has a lasting consequence on learning. What we decide to cover or not cover in our courses, for instance, can influence the approach that students takes to learning. Courses that cover too much content leave little time and room for students to organize knowledge meaningfully. There is not enough time to cover concepts in depth.

When breadth is emphasized over depth, the highly rich and contextualized mental frameworks that characterize deep understanding cannot be built. Without connections, knowledge exists mostly in the context in which it's learned. This leaves students with the inability to transfer concepts to novel situations.

Therefore, structure your course so there's a greater emphasis on conceptual understanding, rather than the amount to be covered. To accomplish this, start by thinking about the seminal concepts that you would likely students to be able to know and demonstrate by the end of the course. This process is called Backward Design, and we will cover in depth during this session on Creating a Course and Constructing a syllabus.

Backward Design leads to the prioritization of content, which will facilitate your ability to cover fewer concepts more deeply. Design assignments and assessments that emphasize deep understanding and encourage students to approach the subject as deep learners. If during our lectures we emphasize conceptual understanding, but our assignments and exams do not require students to think deeply, then our students will tend to approach the subject as surface learners. In the session on Constructing Effective Problem Sets and Exam Questions, we will demonstrate how to design questions that encourage deep learning and critical thinking skills.

Now that we have had time to explain strategies for implementing current theories on learning, think first on how you will implement at least two of the learning theories covered in the pre-session readings and in today's session. Then identify and describe specific activities or assignments that you would implement and explain how they are supported by the research findings and learning theories. Work first on your own for five minutes. Then discuss your answers with your immediate neighbor. Provide a description of the strategies and activities or assignments that you identified in this activity on the course's online forum.