Backward design

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Where to begin with teaching?

• Decide the topics and activities of the course?
• Decide the assessments of the course?
• Decide the objectives of the course?
Understanding by Design

What should students be able to do?
Big ideas and skills

How will you know students can do X?
Assessment

How do students learn to do X?
Activities that provide necessary knowledge & skills
Examples (note the verb)

• Design and complete a semester-long research project that is both quantitative and original.
• Use a variety of scientific tools to measure coastal and water column properties.
• Make reasoned predictions based on scientific data.
• Explain how feedback loops can stabilize or exacerbate change in the ocean.
• Distinguish between gradual, oscillating, and episodic variability in the ocean.
• Compare multiple natural and anthropogenic influences on ocean change.
• Evaluate coastal hazards and resources of the U.S. Northeast, Gulf, West, and Caribbean coasts and assess their relative risk resilience.
• Apply systems thinking to make connections between marine science, history, policy, and literature, in the broad context of sustainability.
Write a course goal

• Needs to be MEASURABLE* and CLEAR
• Make it for introductory students, stated as something you expect them to be able to DO at the end of the course.
• Pick something that is relevant to being a professional in your field
  • could be very specific or a transferable skill

*Note: which of these could you observe students doing?
- knowing
- understanding
- appreciating