Online Teaching: To Lecture or Not to Lecture

When teaching online, it is impossible to lecture on all course content. This table is intended to help you determine which content requires lecture and which content students can learn on their own through reading, videos, graphs, infographics, or online lessons like Khan Academy. Notice how the course outcome is broken down into three short-term unit outcomes that are also specific and measurable so that each outcome can be communicated to students and assessed.

Example 1: Life Science					
Course Outcome #1 (long-term outcome) Students will be able to construct a basic model of how nerve cells communicate with each other			**Summative Assessment** Create animated video of a reflex arc, using terms correctly Question #s ____, _____, ____, on unit test		
Lesson or Unit Outcomes that lead to course outcome above (short-term outcomes	**Is this content typically challenging for students? If yes, lecture needed?**	**If no lecture, how will students learn on own? (read, watch, collaborate, etc...)**	**Connection to other content and to real world**	**How will you check for understanding?** **([Formative Assessment – Low Stakes](#))**	**What students can do if they don't get it**
Identify 3 basic structures of a nerve cell (neuron) and associate each with input, cell machinery, output (dendrite, cell body, axon)	No	Figure and paragraph in text	Neurons on giraffe neck, human sciatic nerve	Practice quiz - matching structure name to function, using image (multiple attempts)	Refer back to figure and paragraph
Describe the structure of a synapse, using the terms presynaptic, postsynaptic, synaptic cleft and neurotransmitter	No	Figure and section in text and animation available online	Effect of Selective Serotonin Reuptake Inhibitor (SSRI) antidepressants on neurotransmission	Practice quiz - label diagram, questions on life cycle of a neurotransmitter	Refer back to text and animation
Describe the steps of an action potential in terms of flow of ions and cell potential in an action	Yes, recorded lecture on flow of ions and resulting difference in charge across cell membrane	Lecture reinforced with online animations	Predict effects of toxins that affect different ion channels –	Canvas groups predict stages of action potential based on ion concentrations and channels opening/closing	Draw out positive and negative charges moving across the cell membrane, one step at a time

Example #1: Social Science

Course Outcome #1 (long-term outcome)			Summative Assessment		
Analyze self-efficacy (SE) in relation to its four constructs			Analysis of a personal Self-Efficacy example. Students write or use the audio feature to narrate a personal scenario when they felt efficacious and connect it its four constructs.		
Lesson or Unit Outcomes that lead to course outcome above (short-term outcomes)	**Is this content typically challenging for students? If yes, lecture needed?**	**If no lecture, how will students learn on own? (read, watch, collaborate, etc...)**	**Connection to other content and to real world**	**How will you check for understanding?** (**Formative Assessment – Low Stakes**)	**What students can do if they don't get it**
Describe the four constructs of S-E: mastery experiences; vicarious experiences; verbal persuasion; and emotional and physiological states	No	Students review text material on self-efficacy and its four constructs	Students provide examples of persuasion (written instead of verbal) to 3 other students in their Canvas group.	Respond to each member of your group with which example you find most persuasive and why.	Watch video summarizing each construct Read "4-Ways to Build Self-Efficacy"
Compare/ contrast the difference between SE and self-esteem	No	Review the difference between SE and self-esteem with this source that shows a comparison.	This is common human experience. I, as the instructor, will share a personal example.	In Canvas groups, students prepare and post a Venn Diagram to compare/contrast SE and self-esteem.	Provide students with verbs that are applicable for comparisons.
Argue for or against the connections between self-efficacy and academic achievement	No	Students read the article on SE and academic achievement. Students work in pairs to analyze the data in the article, examine the claims made in the article and argue for or against the connections.	All students bring their perceived knowledge of the reasons for academic achievement.	In a group discussion thread, share your understanding of self-efficacy and how it might or might not relate to academic achievement. Respond to one classmate.	Provide a pro/con template for students to use as a starting point if needed.

Your Course

Course Outcome #1 (long-term outcome)			Summative Assessment		
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Your Course

Course Outcome #2 (long-term outcome)			Summative Assessment		
Lesson or Unit Outcomes that lead to course outcome above (short-term outcomes)	Is this content typically challenging for students? If yes, lecture needed?	If no lecture, how will students learn on own? (read, watch, collaborate, etc...)	Connection to other content and to real world	How will you check for understanding? (**Formative Assessment – Low Stakes**)	What students can do if they don't get it

Your Course

Course Outcome #3 (long-term outcome)			Summative Assessment		
Lesson or Unit Outcomes that lead to course outcome above (short-term outcomes)	Is this content typically challenging for students? If yes, lecture needed?	If no lecture, how will students learn on own? (read, watch, collaborate, etc...)	Connection to other content and to real world	How will you check for understanding? (**Formative Assessment – Low Stakes**)	What students can do if they don't get it

Your Course

Course Outcome #4 (long-term outcome)			Summative Assessment		
Lesson or Unit Outcomes that lead to course outcome above (short-term outcomes)	Is this content typically challenging for students? If yes, lecture needed?	If no lecture, how will students learn on own? (read, watch, collaborate, etc...)	Connection to other content and to real world	How will you check for understanding? (**Formative Assessment – Low Stakes**)	What students can do if they don't get it

Continue with your course outcomes...