

# Reconsidering Assignments & Assessments

Alternatives for remote instruction

Janet Rankin, Director - TLL

# Questions & Concerns

- Balance between collaborative and individual work
- Advantages and disadvantages of long (3 hour) exams
- Pset due dates (frequency & alignment)
- Substituting psets for exams
- Creating student projects based on theoretical material

**Why use  
alternative  
assessments?**

# Why use alternative assessments?

- Some activities that work well in a traditional classroom or lab may not work well remotely
- Some assessments may differentially negatively impact students in particular learning environments:
  - Time-zone issues
  - Internet connectivity
  - Living situations
- It's a pandemic

You may not be measuring what you think you're measuring...

# Why use alternative assessments?

You may not be measuring what you think you're measuring...



**Start with your  
goals for student  
learning**

**Start with your  
goals for student  
learning**

Identify the TYPES of  
assessments that  
realistically & accurately  
measure that learning.

# Choose the TYPES of assessments that support your ILOs

	<b>ILO #1</b> I.D. phases on a phase diagram	<b>ILO #2</b> Generate phase diagrams using a given solution models	<b>ILO #3</b> Explain the relationship between S & U	<b>ILO #4</b> Calculate products and amount from a set of reacting species
<b>Assessment A</b> TD software project				X
<b>Assessment B</b> Problem set	X	X	X	X
<b>Assessment C</b> Exam 2 (oral)	X			
<b>Assessment D</b> Pre-Class Q			X	



# Questions & Concerns

- Balance between collaborative and individual work
- Advantages and disadvantages of long (3 hour) exams
- Pset due dates (frequency & alignment)
- Substituting psets for exams
- Creating student projects based on theoretical material

# Individual v. Group work

- Peer feedback form
- 2-stage exams

# Peer feedback

**Peer Group Assessment Template**

<b>Criteria</b>	<b>Name</b>	<b>Name</b>	<b>Name</b>	<b>Name</b>	<b>Name</b>	<b>Total</b>
Commitment to group goals						
Level of participation						
Quality of work produced						
Meeting deadlines						
Work together as a group						
<b>Total</b>						

**Figure 1. Peer Group Assessment Template**

<b>Criteria</b>	<b>Name</b>	<b>Name</b>	<b>Name</b>	<b>Name</b>	<b>Name</b>	<b>Total</b>
Commitment to group goals						
Level of participation						
Quality of work produced						
Meeting deadlines						
Work together as a group						
<b>Total</b>						

# 2-Stage Exams

- **Stage 1:**
  - Individual, between  $\frac{2}{3}$  and  $\frac{3}{4}$  of the examination time;
  - a standard formal examination that students complete working alone.
- **Stage 2:**
  - After students turn in their individual exams - small groups solve similar or identical problems during the remainder of the examination time.

# Oral Exams

- Use well-structured questions w/clear criteria
- Explicitly link to learning goals
- Takes longer to administer - but far less time to grade

# Project Lab in Mathematics

Haynes Miller, Susan Ruff



<https://ocw.mit.edu/courses/mathematics/18-821-project-laboratory-in-mathematics-spring-2013/>

# General overview of options

[Reconsidering Assignments & Assessments](#)



# Discussion

Follow-up, additional info?  
→ [jrankin@mit.edu](mailto:jrankin@mit.edu)