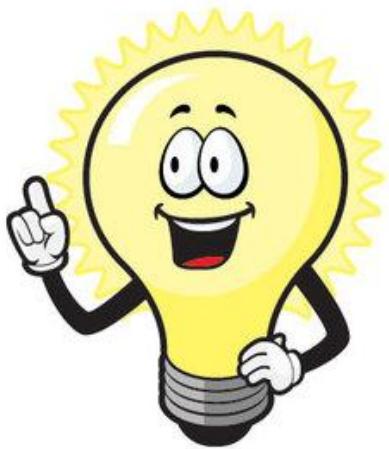


Creating Effective Learning Environments

<https://tinyurl.com/ccti25learn>



Certification in College Teaching Institute
May 7, 2025

Kirstin L. Parkin (she/her)
Associate Professor

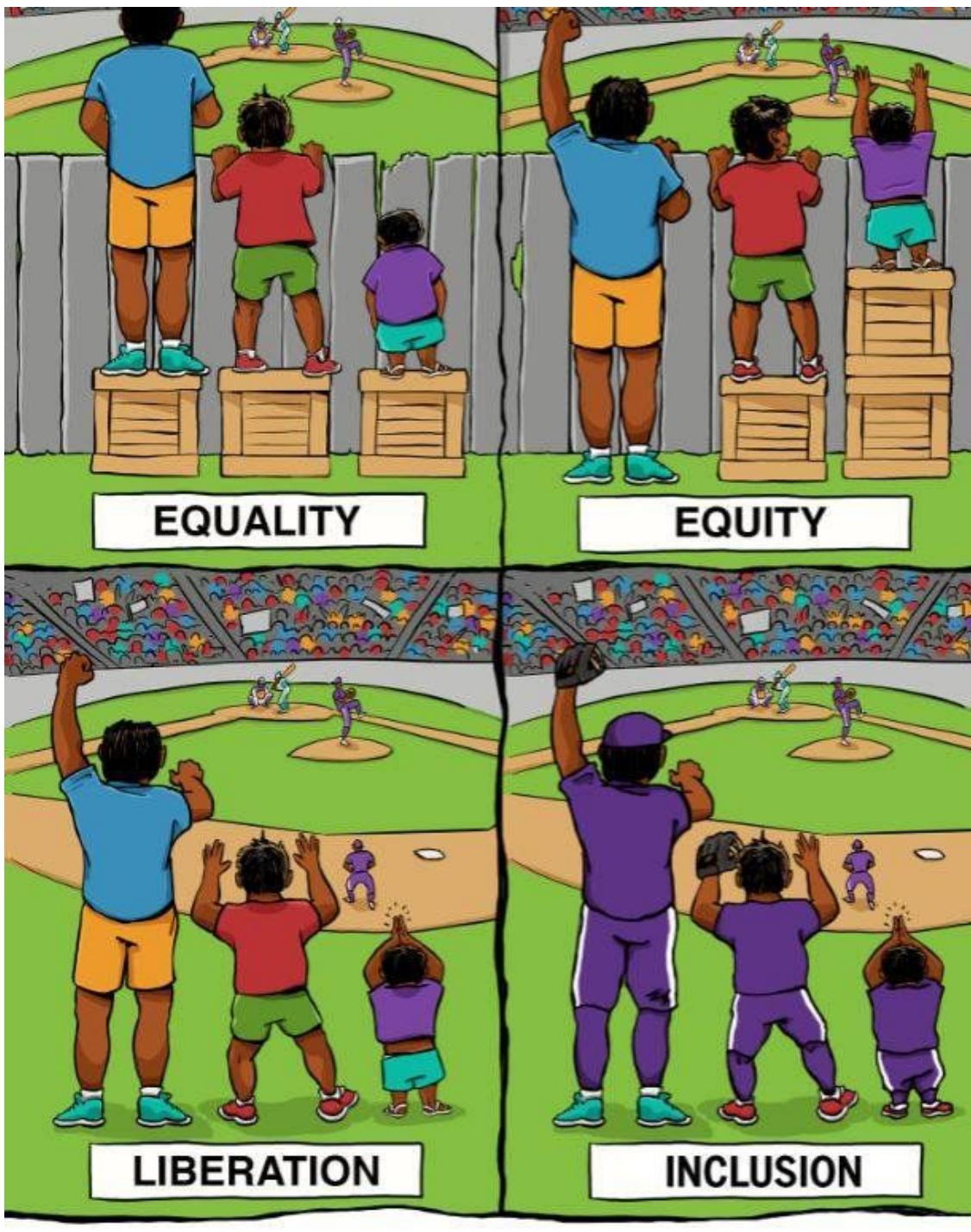
Department of Microbiology, Genetics, & Immunology

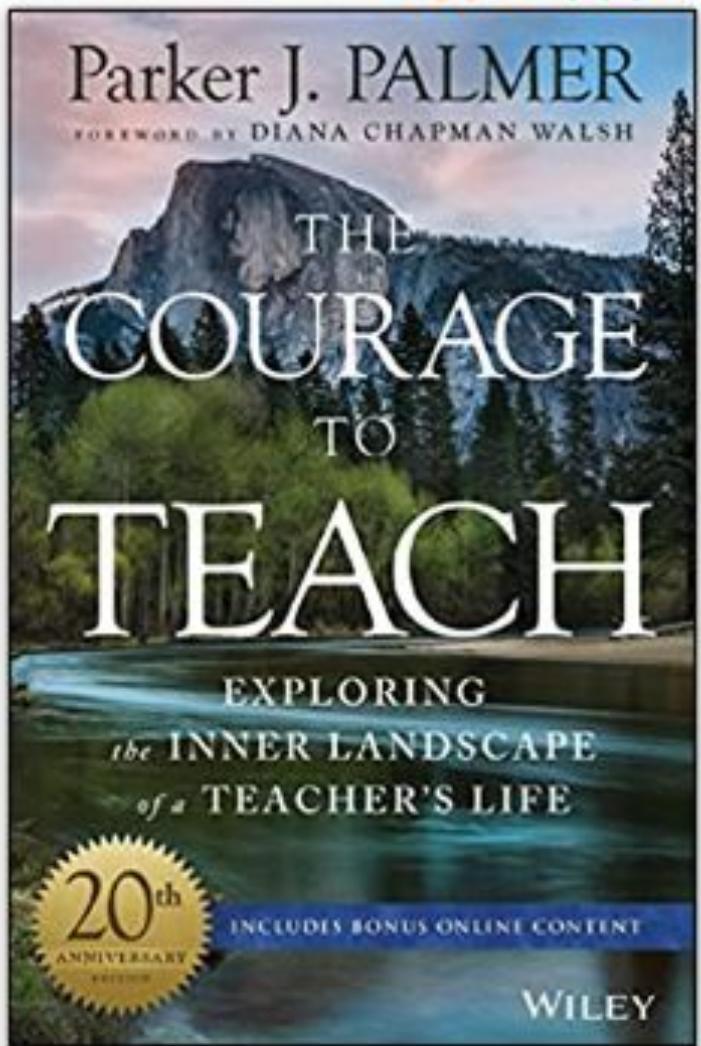
Make a copy &
follow along!



How do we lower the barriers to learning and create a positive learning experience?

<https://www.storybasedstrategy.org/the4thbox>





Be Reflective....

"When I do not know myself, I cannot know who my students are. I will see them through a glass darkly, in the shadows of my unexamined life – and when I cannot see them clearly, I cannot teach them well."

Let's get to know each other...



College of Human Medicine
MICHIGAN STATE UNIVERSITY



Tell me a little
about you!



Example Questions for Introductory Surveys

- How would you like to be addressed? How do you pronounce your name?
- What unique aspect of yourself and/or your life would you like to share with me/our teaching team?
- Please describe a positive learning experience in your life and explain what made it different from other learning experiences
- After reading the syllabus, what aspects of the course present the most challenges?

Creating an inclusive learning environment

- Introduce yourself using pronouns
- Provide locations of bathrooms, including gender neutral bathrooms
- Create student song request list to play before class and during work sessions



Be relatable

- Share your learning experiences with your students
 - Acknowledge challenges you've faced
- Reflect on your own learning experiences and share a positive experience with your group members
- What made the experience stand out in your mind? Are there common themes among your group members' experiences?

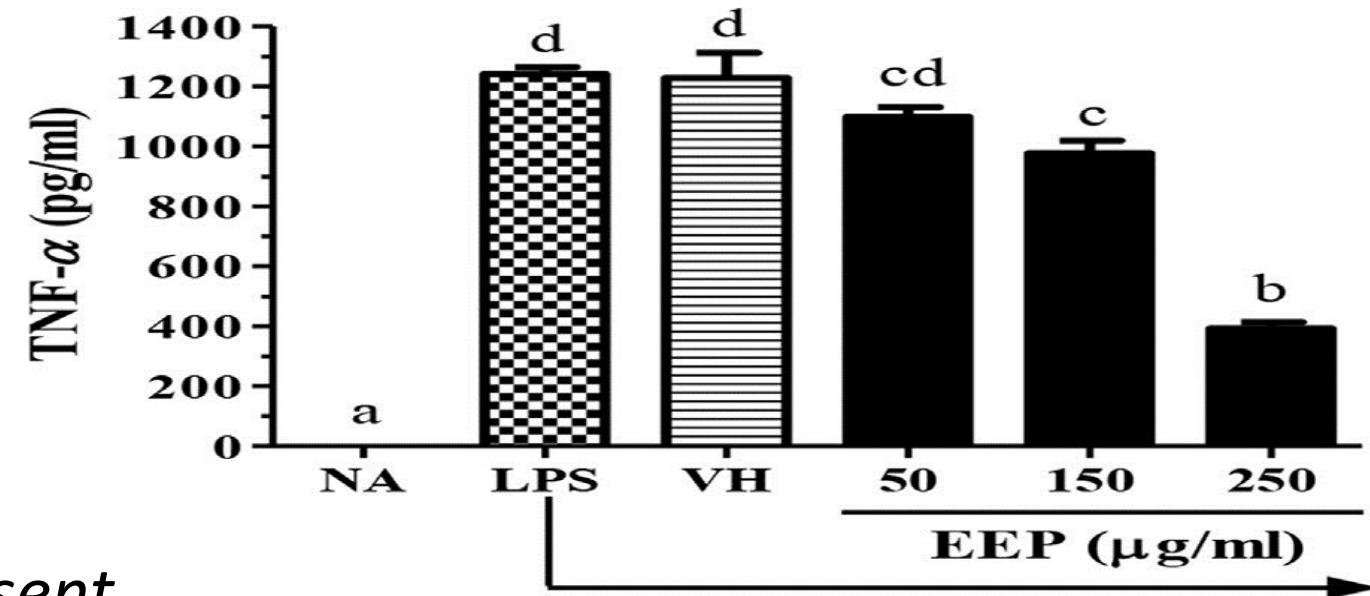
Provide students with a clear visual of what they are working towards

What does being successful at _____ look like?
(the topic you're teaching)



Provide examples of “final products” from faculty and students at your institution as learning materials

Create learning goals directly related to the final product



Goal: Be able to represent data about the immune response in graph format

Find an example of a “finished product” in your discipline and show it to your group.

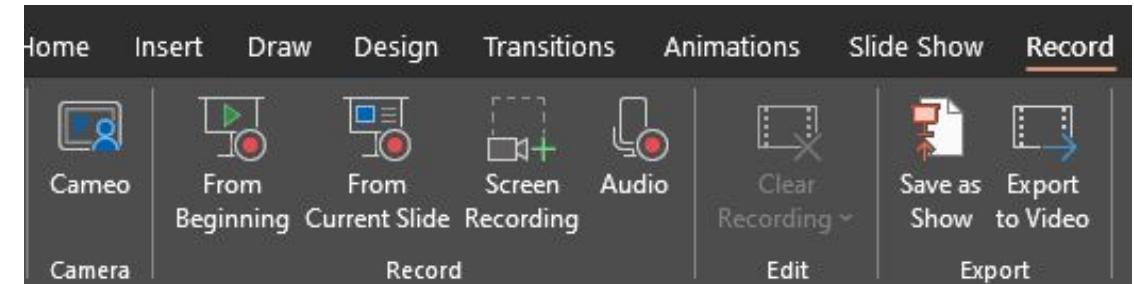


- What do they have questions about?
- Is there anything they already recognize/relate to?
 - If not, why? What background information is needed?



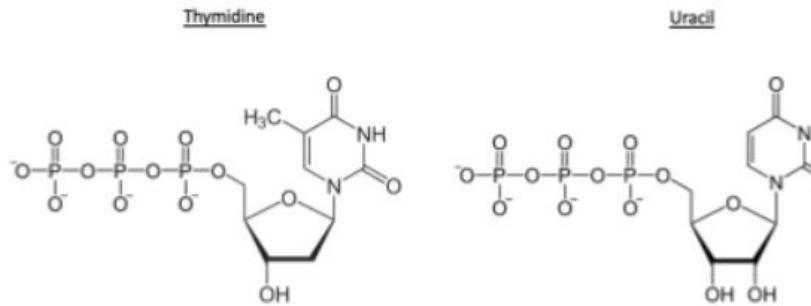
Prep work for class should have a low cognitive load

- 5-10 minute videos
 - YouTube/Kahn Academy
 - Powerpoint recording
- Focused reading assignment
- Pre-class worksheet to provide guidance and give students confidence coming to class
 - Tables to help organize concepts
 - Important Figures
 - 1-2 pages



Advantages to using Google Docs

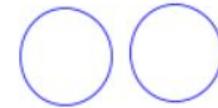
- Use link to add to D2L
- Document “lives” outside of D2L so easy to edit
- Students make copy and add to their files, then complete activities
- Versions are automatically saved
- Provides practice with the tools they will use in class (i.e. google drawings)



Move the **labels** to the appropriate locations

DNA nucleotide Sugar Phosphate
RNA nucleotide Nitrogenous Base

Move the **circles** to the show the difference in sugars between DNA and RNA nucleotides



Move the **arrows and labels** to the appropriate locations on one sugar

↗ 5' carbon
↗ 3' carbon

Class time is for activities with higher cognitive load (the brain workout!)

Practice + Feedback = Success

- Create activities that are clearly linked to the overall goals of the course and the “final product”
- Link in-class activities to pre-class activities
 - Students are learning the words before class
 - In class, students are creating new sentences with the words they’ve learned



Create an environment where students feel safe making mistakes and can learn from their mistakes

- Create shareable documents that students can work on with a group but can also create their own copy for later
 - Google docs/google drawing/One Drive files
- Use in-class response systems to provide feedback with no effect on final grade
 - iclicker, Kahoot (great for multiple choice)
 - Crowdmark (great to give later feedback on free response questions)



Working in groups

- Use CATME survey to organize students into groups of 4 people
- Same group for whole semester (*with exceptions based on feedback*)
- Groups assigned to specific location in classroom
- Teaching team visits designated section of classroom
 - Rotating schedule so each group will meet all members of teaching team
- Working in groups is a way to get feedback while practicing. Student grades are still based on their own individual performance in the class

Technology can help with learning...but be cautious

- My favorites:
 - iPad pro
 - Crowdmark
 - Create comments to use as feedback during blind grading
 - iclicker
 - Polls and assignments
 - Students have a copy of the question in their records and can create a quizlet
 - D2L intelligent agents
 - Identify batches of students based on selected criteria and send out personalized message

D2L checklist – helping students stay organized

Make it easy
for students to
find what they
need



Table of Contents > Class Checklists > Material for Exam I > 002 Bonds and forces

002 Bonds and forces ▾



To do before class



- ✓ Review the learning objectives for the class day



Add Due Date

[Click here for the Learning Objectives module](#)

- ✓ Open the pre-class activity



Add Due Date

[Click here to access the preclass activity.](#)

- ✓ Watch the recorded lecture, take notes, and complete the preclass activity



Add Due Date

[Click here for a link to the slides and recorded lectures.](#) Watch the recorded lecture and take notes on the slides and information to the pre-class activity. Use the assigned text reading to fill in details.

- ✓ Submit your completed pre-class activity



D2L Intelligent Agents

Providing personalized feedback

Course Administration

Category	Name
----------	------

Communication

 Announcements

 Chat

 Intelligent Agents

Release Conditions

Attach Existing

Create and Attach

 Remove All Conditions

To access this item, users must satisfy

All conditions must be met ▾

Has not completed an attempt on the quiz: 003-004 RIQ Gene expression I and Gene expression II 

2. Actions

Repetition

- Take action only the first time the agent's criteria are satisfied for a user
 Take action every time the agent is evaluated and the agent's criteria are satisfied for a user

Which Action Repetition setting should I use?

Send an Email

- Send an email when the criteria are satisfied

Name that the emails come from: Kirstin Parkin

Reply-To address for responses: <parkinkr@mail.d2l.msu.edu>

[How can I change the default From and Reply settings?](#)

To: *

{InitiatingUser}



Cc:



Bcc:



[What special email addresses can I use?](#)

Example of e-mail with D2L intelligent agent

Dear {InitiatingUserFirstName} ,

According to the records in D2L, you did not complete an attempt on the BS161 Gene Expression Review and Integration Quiz (RIQ 3-4). These quizzes are the best way to practice and get feedback on exam style questions. To succeed in the class, it is very important to prepare for these quizzes the same way you prepare for an exam. Past students have provided us feedback on how they prepared and succeeded in the class. One of the key study techniques they used was to print out/download a clean copy of the ICAs at the end of the week and completed what they could without any notes around. Then, they compared their answers to the posted answer key on D2L and wrote in any correct information they had left out in a different color ink. This gave them an idea about which concepts they needed to review and work on before taking the Review and Integration Quiz.

The Review and Integration Quizzes are still available to take again, so you can get practice on the timing and style of questions that will be asked on the upcoming exam. We know from years of research that the more practice and feedback students have on their activities, the more they will learn and be successful on the exams.

Please come to the [biosci](#) help room with questions (schedule and links listed on our D2L page) and/or send your questions to me through e-mail. We want to know what concepts are confusing so we can help to make this class a more positive learning experience.

Sincerely,

Dr. Parkin

Equitable Grading

“Grading must use calculations that are mathematically sound, easy to understand, and correctly describe a student’s level of academic performance”
– Joe Feldman

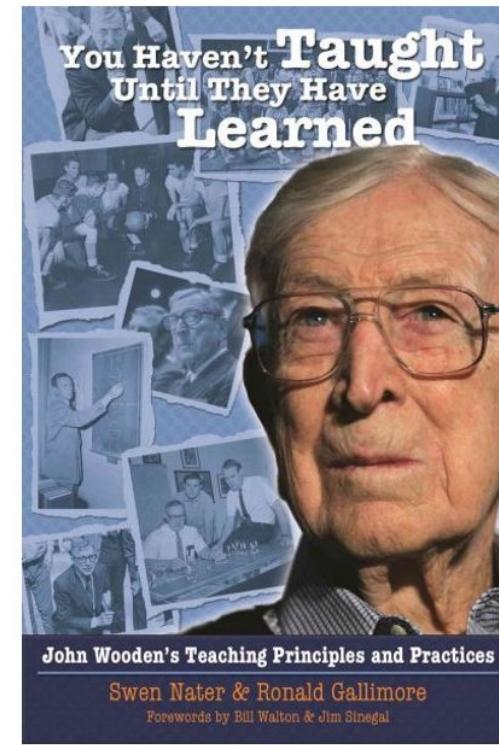
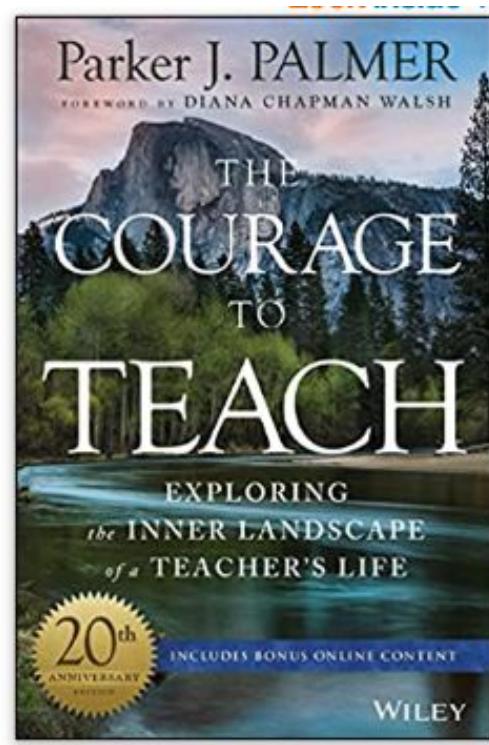
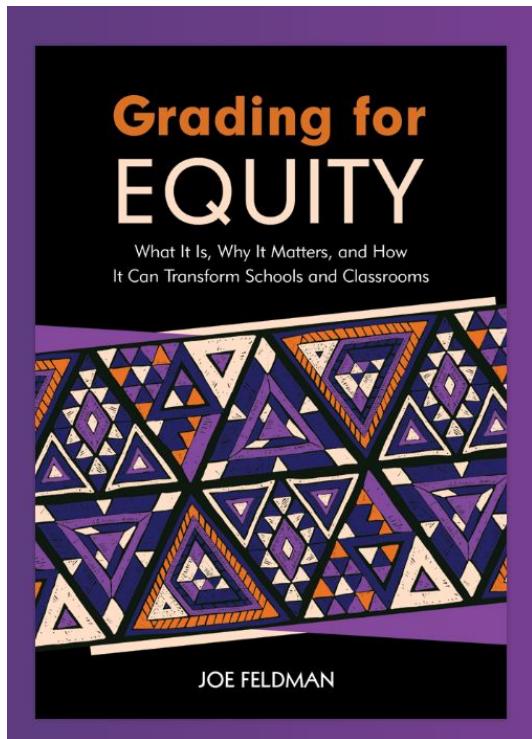
- Bias grading practices:
 - Providing extra credit
 - Penalizing for tardiness/late turn in
 - Punishing cheating in the grade
 - Evaluating student behaviors
 - Including homework in the grade



References

Fuentes, M. A., Zelaya, D. G., & Madsen, J. W. (2021). Rethinking the Course Syllabus: Considerations for Promoting Equity, Diversity, and Inclusion. *Teaching of Psychology*, 48(1), 69–79. <https://doi.org/10.1177/0098628320959979>

<https://gradingforequity.org/>



Seven Strategies to Infuse Diversity, Equity, and Inclusion into Teaching



Robey B. Champine, PhD, MS, MPH, is an Assistant Professor in the Master of Public Health Program

<https://mph.chm.msu.edu/news-items/faculty-and-staff/418-faculty-voice-seven-strategies-to-infuse-diversity-equity-and-inclusion-into-teaching>