

Going (Almost) Gradeless: How Removing Grades Can Deepen Student Learning Experiences

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From Idea to Implementation

- Campus book club
- Faculty Learning Communities
- Colleague input and feedback
- Faculty huddles
- Use of ungrading in didactic and skills laboratory courses

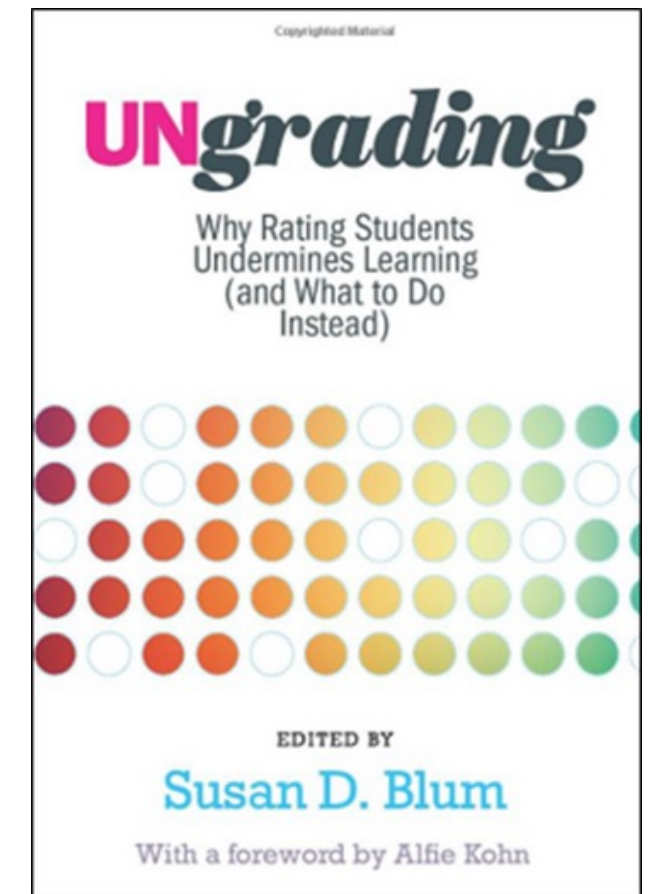




Shifting the Grading Mindset

“Education should be equipped with an endless feedback loop rather than a terminal grade. Start the loop of communication by changing the words you use in conversations about learning, and then learning will become about mastery instead of the bottom line on a report card.”

– Starr Sackstein; UNgrading (Chapter 4)





Pharmacy Practice Laboratory II

Course affords the learner the knowledge, skill set, and resources needed to practice in an institutional setting. Topics include health-system pharmacy; sterile and nonsterile products; compounding; point-of-care testing.

Weekly in-person practice (0 points)

Real-time faculty feedback
Student self-reflection

Required assignments (0 points)

Pass rate of > 90%; multiple attempts
Auto-graded by learning management system

Portfolio (5 points)

Self-assessment (5 points)
Faculty feedback
Managed within learning management system

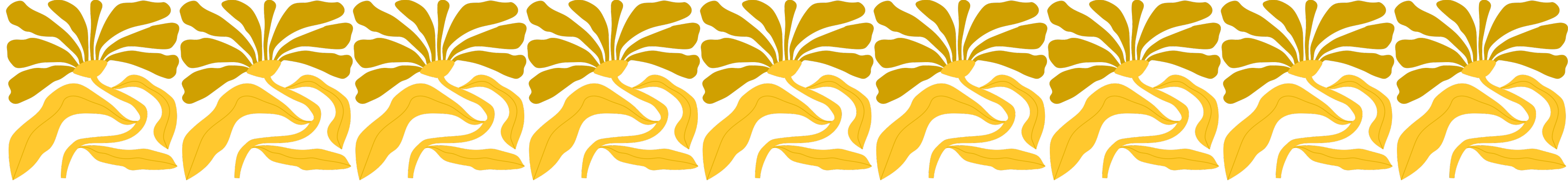
Final Self-assessment (10 points)

Faculty feedback
Managed within learning management system

Performance based assessment (30 points)

Compounded sterile preparation
Student assessed by faculty

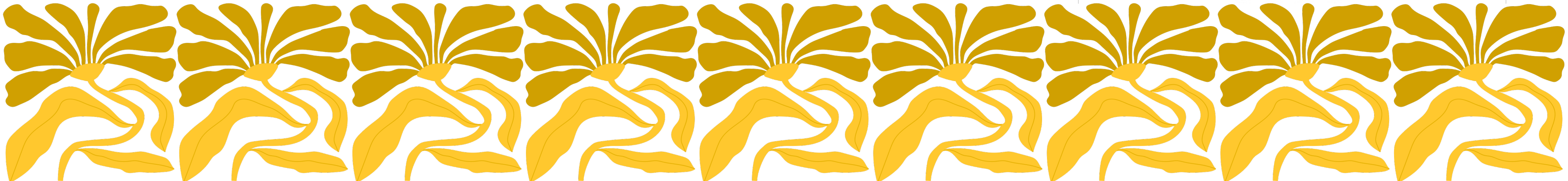
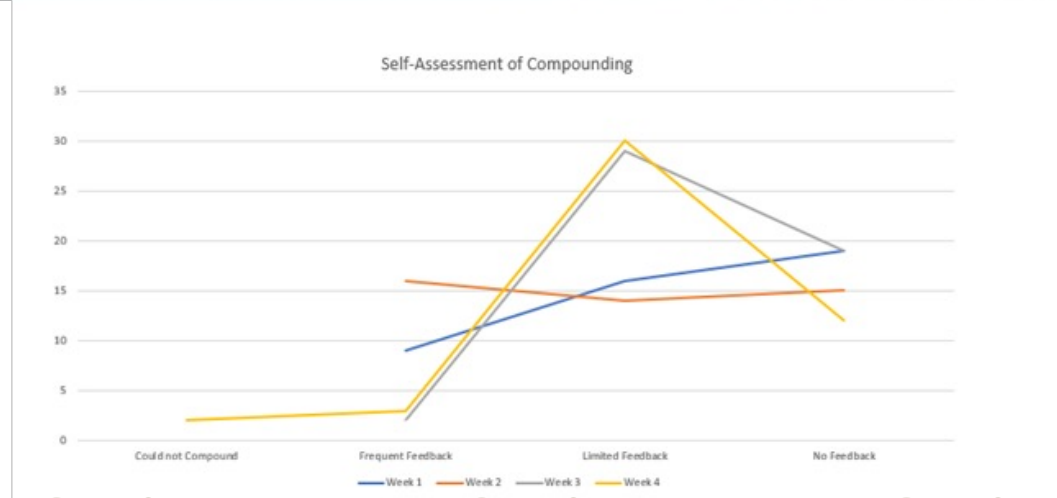
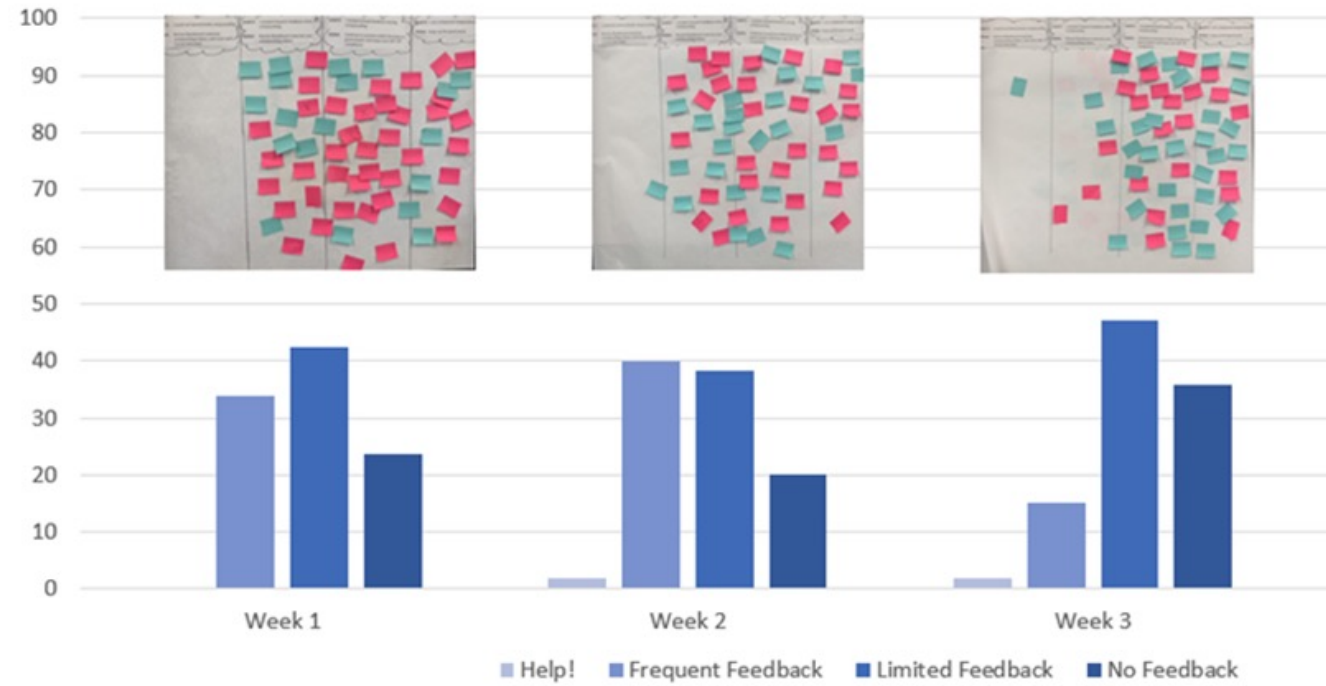




Real-Time Error Checking & Self-Assessments



Every student received personalized feedback on their performance and final product from faculty





Revise and Resubmit Assignments

- Required assignments were to be completed with a score of > 90%
- If assignments were not completed on time and with a score of > 90%, the student was expected to take a comprehensive written exam with a passing score of > 70%

Frenzel J, Cernusca D. Alternative Assessment Practices, Grading Less, and Learning More in a Health Professions Skills Laboratory Course. InEdMedia+ Innovate Learning. Association for the Advancement of Computing in Education. 2022.

Frenzel J, Kleven S, Cernusca D. Less Points, Less Stress, Better Learning in a Skills Laboratory Course Using Alternative Grading. American Journal of Pharmaceutical Education. 2024;88(1):100620





Learning Portfolio Options

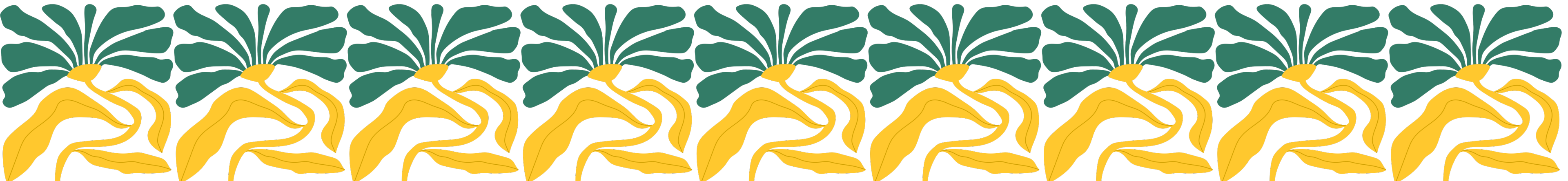
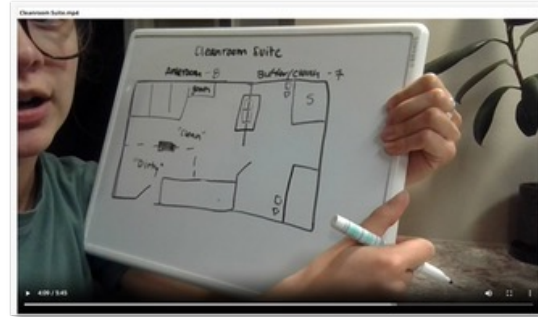
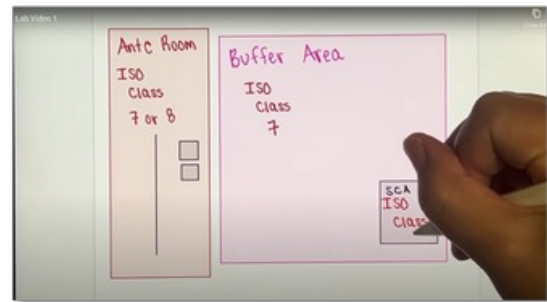
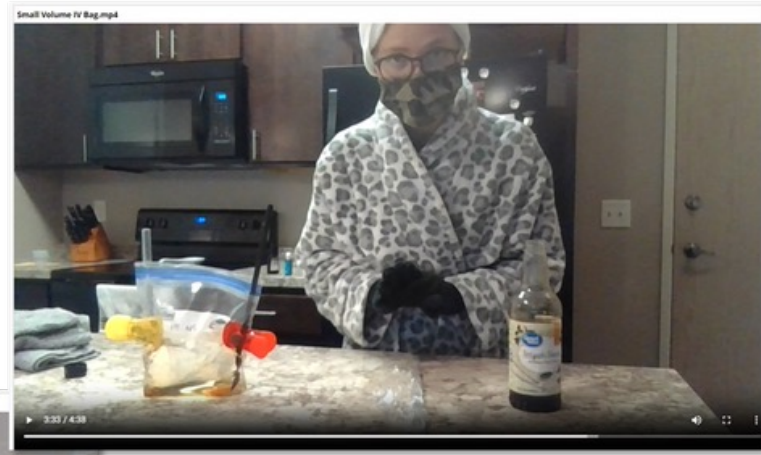
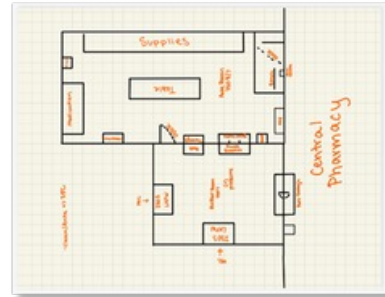
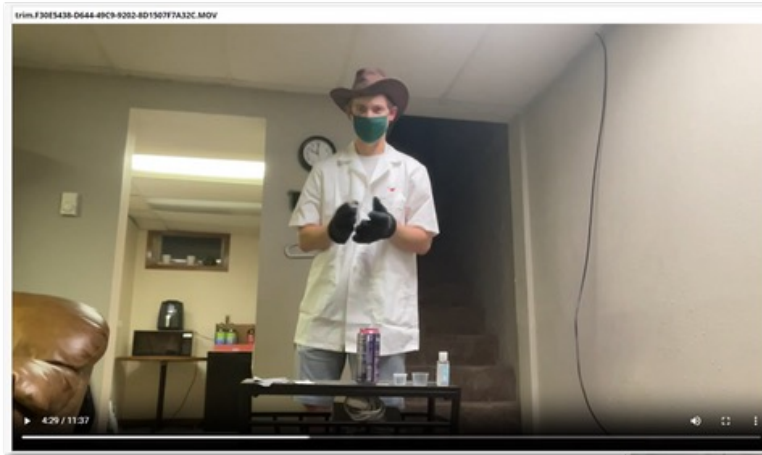
Students chose three institutional pharmacy based projects from a menu of five projects

1. Write **annotated bibliography and reflection** for readings of choice from a hospital and health-system pharmacy text
2. Write **annotated bibliography and reflection** for American Society of Health-System Pharmacists guidelines of choice
3. Write **weekly reflections** of both lecture and laboratory experiences
4. **Record self drawing** a floor plan for a compounding suite used to compound non-hazardous medications and **create a compounding tutorial** using household items for garb and equipment
5. Produce a **podcast**



Compounding Suite Floor Plan
non-hazardous





Effects of Alternative Assessment

Table 1. Change in Knowledge Mean Scores from Pre to Post Grading Strategy Treatment.

Cohort	Mean (SD) pre	Mean (SD) post	t statistic	P value
2020–2021 cohort 1	70.16 (11.90)	81.90 (10.31)	t (64) = -7.87	<.001
2021–2022 cohort 2	64.86 (10.81)	78.96 (12.16)	t (58) = -6.83	<.001
2022–2023 cohort 3	62.96 (9.54)	68.95 (9.70)	t (50) = -3.71	<.001

Table 2. Change in Confidence Mean Scores from Pre to Post Grading Strategy Treatment.

Cohort	Mean (SD) pre	Mean (SD) post	t statistic	P value
2020–2021 cohort 1	3.17 (0.70)	4.27 (0.64)	t (56) = -12.14	<.001
2021–2022 cohort 2	1.94 (0.71)	3.26 (0.33)	t (58) = -15.76	<.001
2022–2023 cohort 3	3.09 (0.76)	4.44 (0.36)	t (48) = -13.47	<.001



Student Perceptions of Ungrading for Pharmacy Practice Laboratory II (n=23)



	Strongly Disagree n (%)	Disagree n (%)	Neither Disagree or Agree n (%)	Agree n (%)	Strongly Agree n (%)
Use of real-time feedback and checking by faculty after compounding a sterile preparation in place of reviewing a graded itemized rubric after compounding a sterile preparation helped my skill development.	3 (13%)	0 (0%)	2 (8.7%)	10 (43.5%)	8 (34.8%)
Use of sticky notes to indicate my confidence in compounding a sterile preparation helped me gauge my skill development weekly.	3 (13%)	2 (8.7%)	6 (26.1%)	6 (26.1%)	6 (26.1%)
Assignments with unlimited attempts helped my understanding of the course content.	1 (4.3%)	1 (4.3%)	2 (8.7%)	8 (34.8%)	11 (47.8%)
Compared to other graded courses, the use of ungrading in this course better supported how I learned course materials.	2 (8.7%)	1 (4.3%)	4 (17.4%)	10 (43.5%)	6 (26.1%)
Compared to other graded courses, the use of ungrading in this course reduced the stress associated with assignment points and letter grades.	3 (13%)	3 (13%)	10 (43.5%)	7 (30.4%)	7 (30.4%)



Pharmacotherapy Capstone

Course requires students to utilize clinical practice guidelines, current scientific literature, and pharmacotherapy concepts to evaluate integrated patient case scenarios.

It is designed to use multiple active learning strategies to help students develop clinical reasoning skills, integrate concepts learned throughout the curriculum prior to rotations.

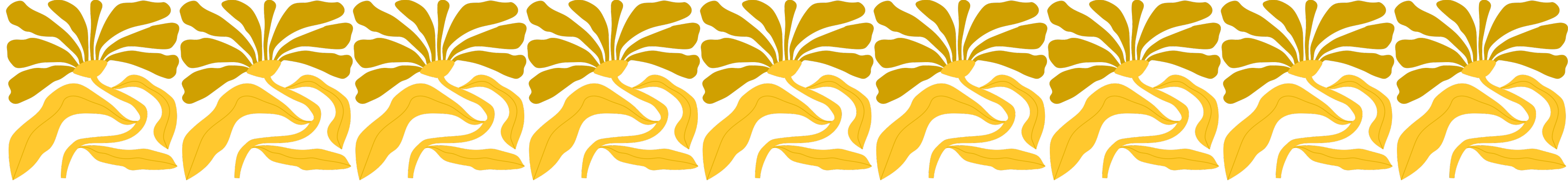
Prior to 'ungrading' implementation:

- Assignments turned in prior to class discussion.
- Points allocated to every detail during grading.

Ungrading strategies:

1. Early Assessment
2. Homework Case Revisions
3. Rubric Grading
4. Peer-Feedback
5. End of Course Reflection





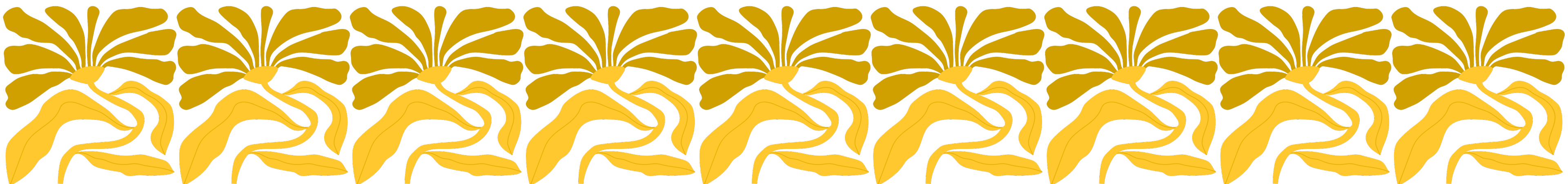
Early Assessment

Day 1: Introduce syllabus including the use of “ungrading” in the course.

Day 2: “Assessment Zero” = 0 points

Day 3: Practice self-assessment and peer-feedback

“The first independent in-class case submission will not be graded (case zero). It will serve as an opportunity for learning – learning the format of the in-class assessments, learning the pace that you will need to work to complete in-class submissions, learning how homework cases will help you prepare for the assessments and learning how feedback will be given.”



Homework Case Revisions

- Students prepare homework cases ahead of class
- Small group discussion
- Large group discussion
- Revise homework after class
- End of Block – turn in 1 homework case determined by instructor





Rubric Grading

- 5 grading criteria
 - Example on right of one grading criteria.
- 3 levels
- **Focuses on feedback**

Grading Criteria	Level 1: Direct observation required or did not demonstrate. (0 points)	Level 2: Requires assistance, frequent correction, or feedback. (1 point)	Level 3: Trust learner to complete the task. Requires limited correction or feedback. (2 points)
1. Compile a prioritized health-related problem list for a patient.	<ul style="list-style-type: none"> - Misprioritized problem list - Misaligned goals of therapy - Few or no drug therapy problems identified 	<ul style="list-style-type: none"> - Inconsistently identifies most important priorities within a patient case - Selects and applies evidence-based goals of therapy, but only in some cases - Is not able to consistently analyze and classify drug therapy problems 	<ul style="list-style-type: none"> - Evaluates a patient case and identifies most important priorities within a given scenario - Accurately selects and applies evidence-based goals of therapy - Critically analyzes and classifies drug therapy problems



Peer-Feedback


Prompts

Describe two things that you think are particularly strong about this case submission.

Identify two aspects of the draft that are currently weak, problematic, or ineffective. Please provide specific examples.

If this was your case submission, what is one thing that you would do to revise it prior to final submission?

Identify one thing from this case submission that you would like to incorporate into your notes going forward.





Final Self-Assessment/Course Reflection

“The final self-assessment gives you the opportunity to reflect on your learning experience. To do so, you should **collect and present evidence** from the work that you’ve done over the course of the semester in Capstone.”

1. Did you achieve the course objectives outlined in the syllabus?
2. Where have you shown the most growth?
3. What changes did you make to your work based on the peer feedback that you gave or received?
4. Based solely on the amount that you have learned this semester, what grade do you feel like you have earned for this course? (Do not consider current point breakdown)
5. What is one piece of advice that you would share with students taking this course in future years? (no supporting evidence required)



Student Perceptions of Ungrading for Pharmacotherapy Capstone (n=67)



	Strongly Disagree n (%)	Disagree n (%)	Neither Disagree or Agree n (%)	Agree n (%)	Strongly Agree n (%)
Allowing homework cases to be edited following discussion (prior to grading) helped my understanding of the course content.	0 (0%)	0 (0%)	2 (3%)	20 (29.9%)	45 (67.2%)
Giving and receiving written and verbal peer feedback helped my understanding of the course content.	5 (7.5%)	4 (13.4%)	11 (16.4%)	22 (32.8%)	25 (37.3%)
As a result of my effort in this class my enthusiasm for the content increased.	0 (0%)	3 (4.5%)	13 (19.7%)	34 (51.5%)	16 (14.2%)
A final self-reflection helped my understanding of the course content.	19 (28.8%)	20 (30.3%)	10 (15.2%)	10 (15.2%)	7 (10.6%)
Compared to other graded courses, the use of ungrading in this course better supported how I learned course materials.	0 (0%)	4 (6%)	12 (17.9%)	28 (41.8%)	23 (34.3%)
Compared to other graded courses, the use of ungrading in this course reduced the stress associated with assignment points and letter grades.	2 (3%)	8 (11.9%)	7 (10.4%)	23 (34.3%)	27 (40.3%)
As a result of ungrading I feel more prepared for APPE rotations.	1 (1.5%)	4 (6%)	11 (16.4%)	30 (44.8%)	21 (31.3%)



Pharmacy Practice Improvement and Project Management

Students gain a basic understanding of practice improvement and projects they would be expected to complete on experiential rotations or as a new practitioner.

All assignments mapped to course objectives

Assignments meet or do not meet expectations

Students awarded a grade based on number of course objectives met

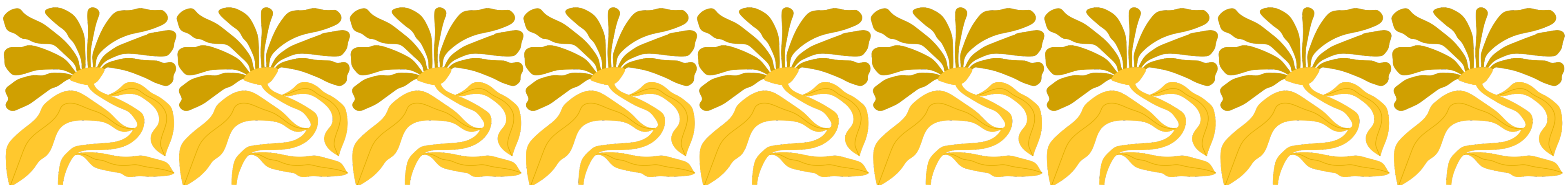
Also incorporated choice of assignments, peer feedback and final reflection (previously covered)





Assignments Mapped to Course Objectives

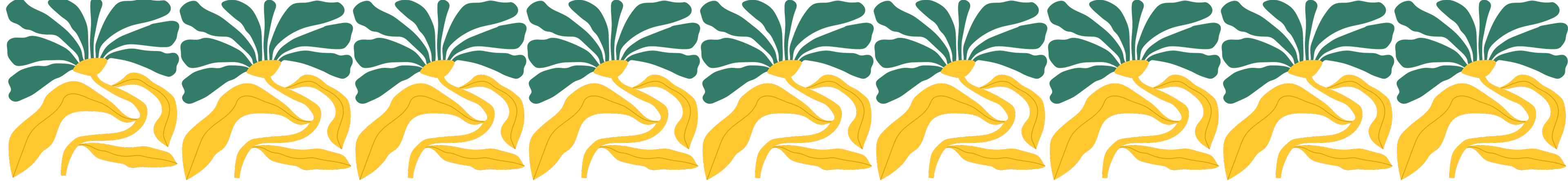
Course Objectives: At the end of the course, students should be able to:

- 1. Demonstrate (Apply) ability to take ownership of learning (topic discussions, individual project, reflection)**
 - 2. Analyze a problem and provide appropriate recommendations for solutions (in class activities)**
 - 3. Develop, implement, and assess (Create) a pharmacy-related project as part of a team (longitudinal research project)**
 - 4. Produce (Create) technical information to educate and assist practitioners (research project abstract)**
 - 5. Apply effective communication strategies to patients and health care professionals (topic discussions, individual project)**
 - 6. Produce and modify (Create) plans for personal and professional development (portfolio, group project, individual project, reflection)**
- 

Assignments rubric mapped to course objectives

CO 1, 6 Reflection Meets Expectations	Reflection Does Not Meet Expectations
<ul style="list-style-type: none">● Reflection is completed by the deadline (CO1)● All questions are answered (CO1)● Evidence of growth based on portfolio or peer feedback (CO6)● Evidence of challenging yourself, pushing out of your comfort zone and/or exceeding your own standard (CO6)● Reflective responses (CO6)	<ul style="list-style-type: none">● Reflection is submitted late● Not all questions are answered● No evidence of growth based on portfolio or peer feedback● No evidence of challenging yourself, pushing out of your comfort zone and/or exceeding your own standard● Listing responses, not reflective





Grades Based on Course Objectives Met

Letter Grade: Final grade will be determined as follows:

FOR PHRM 570 Number of Course Objectives (CO) Meeting Expectations **must meet ALL expectations listed for the CO to be considered meets expectations**	Letter Grade
5 or 6	A
4	B
3	C
2	D
1	F



Title: The Effect of a Non-Contact Boxing Class on the Social Connectedness of a Pharmacy School Cohort

Title: Impact of a Screen Free Period on Pharmacy Student Sleep and Well-Being

Assessing Pharmacy Student Loan-Related Anxiety Before and After a Video Intervention

Title: The Impact of Daily Walks on the Stress Levels of NDSU Pre-Pharmacy and Pharmacy Students

NDSU Pre-Pharmacy and Pharmacy Students



Student Perceptions of Ungrading for Practice Improvement Project Management (n=59)



	Strongly Disagree n (%)	Disagree n (%)	Neither Disagree or Agree n (%)	Agree n (%)	Strongly Agree n (%)
Individual presentations that were not graded for points allowed me to be more creative and take more risks in my presentation.	2 (3.4%)	7 (11.9%)	6 (10.2%)	23 (39%)	12 (35.6%)
Giving and receiving written and verbal feedback helped my performance in the class.	5 (8.5%)	9 (15.3%)	11 (18.6%)	24 (40.7%)	10 (16.9%)
A group research project that was not graded for points helped my understanding of the research process.	3 (5.1%)	6 (10.2%)	8 (13.6%)	32 (54.2%)	10 (16.9%)
As a result of ungrading I feel more prepared for experiential rotations.	1 (1.7%)	4 (6.9%)	18 (31%)	29 (50%)	6 (10.3%)
Compared to other graded courses, the use of ungrading in this course better supported how I learned course materials.	4 (6.8%)	8 (13.6%)	14 (23.7%)	27 (45.8%)	6 (10.2%)
Compared to other graded courses, the use of ungrading in this course reduced the stress associated with assignment points and letter grades.	4 (6.8%)	8 (13.6%)	12 (20.3%)	19 (32.3%)	16 (27.1%)

College of Health Professions Faculty Perceptions of Grades (n=41)

	Strongly Disagree n (%)	Disagree n (%)	Neither Disagree or Agree n (%)	Agree n (%)	Strongly Agree n (%)
Getting a good grade in a course means the student will remember the content one year from now.	8 (19.5%)	17 (41.5%)	8 (19.5%)	7 (17.1%)	1 (2.4%)
In general, students are too concerned with what grade they receive and not concerned enough with what they actually learn.	0 (0%)	2 (4.9%)	7 (17.1%)	23 (56.1%)	9 (22%)
I would prefer evaluating an assessment that did not require an assigned grade, but rather provided the student with qualitative feedback on how they did and how they could improve.	1 (2.4%)	5 (12.2%)	16 (39%)	11 (26.8%)	8 (19.5%)



Students Perceptions of Grades (n=107)

	Strongly Disagree n (%)	Disagree n (%)	Neither Disagree or Agree n (%)	Agree n (%)	Strongly Agree n (%)
Getting a good grade in a course means the student will remember the content one year from now.	22 (20.6%)	37 (34.6%)	37 (34.6%)	9 (8.4%)	2 (1.9%)
In general, students are too concerned with what grade they receive and not concerned enough with what they actually learn.	1 (0.9%)	2 (1.9%)	4 (3.7%)	42 (39.3%)	58 (54.2%)
I would prefer evaluating an assessment that did not require an assigned grade, but rather provided the student with qualitative feedback on how they did and how they could improve.	2 (1.9%)	5 (4.7%)	13 (12.1%)	54 (50.5%)	33 (30.8%)





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