

PSEUDO-UNGRADED CALCULUS EXAMS

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CONTEXT

- Small religious liberal arts university
- Calculus I Fall 2020: ~60 students, mostly first-semester engineering majors
- Planned F2F with hybrid options for students in quarantine/isolation
- **REALITY**: F2F until Thanksgiving, then online to finish the semester

ADAPTING MY ORAL EXAM FORMAT

- Used in upper-division courses
- ~10 problems distributed at least a week ahead of time
- ~Three per student assigned 48 hours before exam time
- Written draft due 24 hours before exam time
- Exam: discuss solutions with the student
- Used prior to Spring 2020; transitioned well to Zoom

UNGRADING

- Instructor gives extensive feedback on student work
- No scores or evaluative assessments (often until absolutely necessary)
- Student reflection and self-assessment

IN-CLASS CALCULUS ASSESSMENTS

- Nine high-level learning targets borrowed from Justin Dunmyre (Frostburg State)
 - E.g.: “In this course, students will utilize the techniques of calculus to find minima and maxima of functions.”
- Learning targets assessed via **LEVEL ONE** (straightforward) / **LEVEL TWO** (more complex) questions via in-class assessments

POST-ASSESSMENT

- Written **FEEDBACK** given post-assessment, but no numerical scores or other judgments made.
- Students then:
 - modify their work based on feedback (if they deem necessary)
 - respond directly to feedback, discuss thinking and learning, and self-assess in a short written reflection
 - attend a 10-minute Zoom meeting to discuss their work/reflection
- Final assessment: **LEVEL 2 PASS/LEVEL 1 PASS/NOT YET**

NOTES

- Students were allowed a limited number of “re-interviews” to improve their evaluations
- This sequence was carried out three times during the semester
- Course grades assigned in part based on the number of **LEVEL ONE/LEVEL TWO** passes earned

OBSERVATIONS AND A QUESTION

- Again: this was **NOT** an ungraded course
- Students' self-assessments were generally in line with my assessments of their work
- Student feedback generally positive
- This was **A LOT** of work
- **QUESTION:** When/for whom is structure in a grading system helpful?

THANKS!

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