ANNUAL FACULTY REVIEW, 2018

Faculty Member's Statement

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TEACHING

Course Load

Spring 18:	No teaching
Fall 18:	MATH 170-003, Honors Calc I 4 credits 26 enrolled

Issues from 2017 Evaluations and Proposed Actions for 2018

In Honors Calculus, particularly first semester, there is usually a small group of students with no prior Calculus experience. This group can be disadvantaged by the default course structure, which is almost exclusively active learning with very little direct instruction.

Proposed Actions:

- At the beginning of the term survey students to find out their level of prior calculus experience.

- Provide supplemental support, aimed mostly at mastery of basic skills, for students lacking prior Calculus experience.

- Complete this reflection before Spring 2019 courses begin.

Actions Taken in 2018 and Observed Results

I executed the plan laid out in last year's reflection:

- I was able to identify all students who were new to Calculus.

- I was able to monitor them closely throughout the semester.

- I was able to either provide additional in-person instruction or direct them to other resources.

The result was not, by any means, perfect. The situation improved, in the sense that at least all of my students were able to successfully complete and pass the course, but gaps remain in learning outcomes and course satisfaction. I also feel that there was less *use* of supplemental resources than there were resources available.

I did not teach in 2019, so completing this review before my Spring 2019 teaching became moot.

Recap and Review of 2018 Evaluations

Numerical data from Fall 2018 Honors Calculus I are summarized in Table 1, including comparisons to benchmarks for all MATH 170 and all MATH courses. The evaluation included additional questions common to Honors courses. My scores, with Honors-wide comparisons, are in Table 2. Response rate was decent at 88%.

I'm very pleased with the numbers. These are probably the highest numerical scores I've received in some time, even relative to other honors courses that I've taught. Only one is below a benchmark (honors specific). My score for timely return of homework is pleasantly in line with other scores. In the past this score has been slightly low. The only potential issue lies (as usual) in the two categories that are most likely to attract lower scores due to the non-lecture course structure. Those are "student questions" and "clear presentation". The former is the lowest score, and probably needs continued monitoring if not immediate corrective action. The latter is not a concerningly low score. My responsiveness to student questions is covered again in the honors specific question, where again my score is a touch low – not in absolute terms, but notable as the only instance of my score coming in below a benchmark.

Fall 2018   Honors MATH 170   n = 23 of 26 (88%)

Question	Max	My score	MATH 170	All MATH
Prepared	5	4.7	4.2	4.3
Fostered learning	5	4.6	4.0	4.2
Clear assessment plan	5	4.8	4.1	4.2
Clear objectives	5	4.7	4.0	4.2
Class organization	4	3.8	3.3	3.4
Effective use of time	4	3.9	3.2	3.4
Clear presentation	4	3.6	2.9	3.2
Student questions	4	3.4	3.4	3.4
Critical thinking	4	3.9	3.5	3.5
Grading system	4	3.9	3.5	3.5
Feedback	4	3.7	3.0	3.1
Homework returned	4	3.8	3.4	3.4
Fairness	4	3.7	3.4	3.6
Classroom atmosphere	4	3.7	3.3	3.3
Assignments	4	3.6	3.3	3.2

Table 1: Fall 2018 Honors Calculus I Evaluation Scores

Fall 2018   Honors MATH 170   n = 23 of 26 (88%)

Question	Max	My score	All Honors
Clear delivery	5	4.5	4.4
Interesting delivery	5	4.3	4.1
Effectively answered questions	5	4.3	4.4
Instructor prepared	5	4.5	4.5
Understand assignments	5	4.6	4.3
Understood grading	5	4.7	4.3
Instructor rating	5	4.5	4.5
Personal preparation	4	3.4	3.2

Table 2: Fall 2018 Honors Specific Questions

Long-form responses affirm what I conclude from other sources. First, the slight dip in scores regarding my response to student questions is paralleled by a small number of comments that indicate some frustration with my style of answering questions with a prod or question of my own. Second, there are no long-form comments that indicate dissatisfaction with the low level of direct instruction, which is in line with the numerical score being fine. Finally, a small number of comments reinforced my supposition that the course structure can disadvantage students with no prior Calculus experience. This was commented on by at least one student who had prior experience, and by at least one without.

Responding to student questions will always require judgment and balance. My strong preference is to use students' questions as opportunities to induce them to find their own resolutions. But this semester, once again, provides evidence that I can err on the side of too much prod and too little clear answer. I will recommit to monitoring my own response patterns and to try to include more direct answers in the mix of responses. I will also commit to an attempt to judge the emotional tenor of the interaction so that if the frustration level is high I can use that as a signal to prioritize direct answers over open-ended suggestions.

It will also continue to be the case that Calculus I, especially Honors Calculus I, will have a wide range of student preparation and background. My experience this semester confirms this, and does not change my plan to address it – namely, identify these students and provide them with additional resources and/or instruction as needed. It is not clear that this situation can be remedied completely without a placement mechanism that separates the two groups of students. I believe that I can increase both the amount of supplemental support that I make available, as well as my aggressiveness in steering the students towards accepting the support.

Proposed Actions for 2019[*]

[*]My work schedule for 2019 is already set and precludes any teaching. However, I will still lay out my intended adjustments for whatever course(s) I next teach.

- Repeat my plan to identify students in Calculus I who may be at a disadvantage. Once identified, repeat my interventions from this year, but perhaps increase the level of attention. I intend to restrict this

to Calculus I, since I've yet to observe the corresponding issue in any other course, but I will apply this in non-honors classes.

- Commit more strongly to a mix of direction answers vs. suggestions in response to student questions. Apply better judgment to the emotional tenor of each such interaction.