

ANNUAL FACULTY REVIEW, 2008

Faculty Member's Statement

Doug Bullock

Department of Mathematics

TEACHING

Course Load

Spring 08: Math 170, Calculus I

Fall 08: Math 464, Mathematical Modeling

Review of 2008 Written Evaluations

I only have evaluations for the Fall semester Math 464 course. Of 17 students, 16 returned written responses. There were two problem areas. Students commented on insufficient preparation and structure of the course, and also that I was not very available out of class. Both of these are legitimate and expected. The cause appears to be that I have once again attempted to take on more teaching that I can reasonably balance with other work.

My solution to this will be to return in 2009 to courses that I can manage with a minimum of prep time (Calculus), and these courses I will also team teach if possible. I've already started this with Spring 2009 and the team teaching aspect has kept me on schedule with class prep and homework grading. I have attempted to address availability by restructuring my schedule to include posted office hours.

Actions in Response to 2007 Evaluations

There were two problems identified in my 2007 evals. One was late return of graded homework, for which my plan was to restructure the type or amount of graded homework to fit my available time. I managed this to some extent in my Math 170 class, reducing to no more than one or two pages of graded student homework per week. Math 464 was not so successful. In fact, since

the real problem seems to be me overestimating how much teaching I can actually do, I made the same mistake as I did in 2007.

The other problem from 2007 was a lack of precision in the language I used in teaching Calculus. I do not recall what, if anything, I did differently in my Calculus class in 2008. Unfortunately, I also don't have student evals for that semester.

Review of 2008 Numerical Evaluations

Question	Respondents	Average
Organized and prepared	16	1.63
Clarity of expression	16	1.25
Encourages critical thinking	16	1.00
Respect for questions	16	1.19
Available out of class	14	1.71
Clear objectives	16	1.31
Value of homework	16	1.13

This is an upper division course for Math majors and other interested students. The course is not one that forces students through a requirement that they might be resistant to. It should be no trouble to reach these students and generate consistently high evaluations.

Given the setting, I was disappointed in these numbers but not terribly surprised. The 1.63 for organization and the 1.71 for availability mirror the written evaluation comments. My plan for addressing this is as above.

On the positive side, every student gave the top score for "encourages critical thinking and analysis." This was a welcome confirmation that my approach to Math 464 – no lectures; almost all class time devoted to exploration – is achieving at least one of my goals.

RESEARCH/CREATIVE ACTIVITY

Research on the effects of using ALEKS continues to generate results. Last year's submission was accepted. The results were presented at the 2008 Annual ASEE Conference by one of the co-authors. Two new papers were in progress in 2008. Abstracts of both have been accepted for presentation at the 2009 ASEE Conference.

Articles Accepted for Publication

- J. Callahan, S.Y. Chyung, J. Guild, W. Clement, J. Guarino, **D. Bullock**, C. Schrader, *Enhancing Precalculus Curricula with E-Learning: Implementation and Assessment*, ASEE Annual Conference & Expo, Pittsburgh, PA AC 2008-1703 (2008).

Papers in Preparation

- **D. Bullock**, J. Callahan, A. Alhgren, C. Schrader, Y. Ban, *The Implementation of an Online Mathematics Placement Exam and its Effects on Student Success in Precalculus and Calculus*, ASEE Annual Conference & Expo, Austin, TX AC 2009-1783 (2009).

Note: Abstract has been reviewed and accepted for presentation.

- J. Callahan, S.Y. Chyung, J. Guild, K. Bridges, **D. Bullock**, C. Schrader, *Improving Students' Learning in Precalculus with E-Learning Activities and through Analyses of Student Learning Styles and Motivational Characteristics*, ASEE Annual Conference & Expo, Austin, TX AC 2009-1783 (2009).

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PROFESSIONALLY-RELATED SERVICE

- Science Competition Day (scoring only, no committee work).
- Chair, Math Department.