Dean James McLeod, College of Arts and Sciences

Dean Ralph Quatrano, School of Engineering and Applied Science

Dear Dean McLeod and Dean Quatrano:

I am writing to both of you concerning this semester's offering of the course Differentia1 Equations, which I believe is Math 217, in which my son, a sophomore in XXX Engineering, is currently enrolled. While T realize that the course is offered by the Department of Mathematics, in the College of Arts and Sciences, I note that it is also a required course in the degree programs offered by the School of Engineering and Applied Science, which thus has a vested interest in ensuring that the course is properly taught and administered.

Let me preface my remarks by saying that my son does not know that I am writing this letter, and I do not plan to tell him about it or discuss 1ts contents with him. I therefore request that you not discuss it with him, either, nor divulge my identity to the course's instructor.

Before discussing my concerns with the way in which Differential Equations is being taught this semester, I must note that my own academic training and professional experience are relevant to those concerns. f am a licensed Professional Engineer my degrees (in mechanical engineering and nuclear

engineering) are from [famous engineering school]. f am, therefore, well aware of the rigorous nature of

undergraduate engineering curricula in general-and the subject of differential equations specifically. In addition, I was a member of the faculty of the Nuclear Engineering Program at XXXX for several years, and am thus familiar with the challenges of teaching technical courses, including preparing and grading

exams, and determining how to allocate letter grades to the class based on the students' performance on those exams.

Over the course of this semester, my son and I have discussed the way in which Differential Equations is being taught and graded. He has told-d me that the instructor is not teaching the course in a manner consistent with the assigned textbook; rather, he is using on-fine resources to supplement the .Lectures and as the basis for homework assignments. The lack of correspondence between the text and classroom coverage-which includes differences in terminology-apparently makes it difficult to use the textbook as a study aid in learning the material. He has also told me that the instructor has been asked to work examples in class to illustrate certain key concepts, and that he has simply refused to do so.

Overa11, my impression is that the instructor is not doing a very effective job of communicating essential concepts to the students.

While I am concerned about the quality of instruction, I am troubled even more by the information I have been given about the instructor's grading policy. An exam was administered in the past week, and I have been told that the average class grade was 47 out of 100. in my view, a class average below 50? indicates a problem with the exam-it was too long to be completed in the allotted time; or it was unrealistically difficult; or there was a significant disconnect between the material- on the exam and the material- covered 1n class. in any case I do not think that an exam of that level of difficulty provides a fair assessment of a student's mastery of the concepts being tested. Moreover, f have been told that

the instructor has decided that he will not curve the grades on the exam, which would appear to mean that students scoring even somewhat above the class average would-d receive a failing grade. l do not know what Washington University's (or your respective division's) policies are with respect to grades, but in al-l- of my experience as both a college student and a professor, I have never heard of such a

grading structure. fn the courses I taught, my goal was for class averages (or medians) on exams to be in the range of 60-70?, and class average was around a C+ or a B-, depending on the difficulty of the course. Grades were always curved around the average/median score.

While I am obviously concerned about my son's performance and the grades that he receives, T am al-so writing this letter as a "customer." I pay the tuition biffs for my son's education, and as such, I have an expectation that the courses that he takes will- be fairly and competently taught. Based on what f have heard about this semester’s offering of Differential Equations, I must seriously question

whether that is true.

I have encouraged my son to seek assistance via the other means available, such as tutorials. However, this does not address the fundamental issues that are the subject of this letter. f encourage you to look into these issues and to determine if my concerns are merited. If you find that they are, I hope that you

will take appropriate action to ensure that the students taking Differential Equations this semester get the quality of education consistent with the high standards of Wash. U.

Dr. Getty,

My name is XXXXXXX, and I am a sophomore in the school of Engineering and Applied and I would like to discuss with you my concerns about this semester's differential equations class .

I had been discussing this matter with my father for quite a while (he is a former professor, himself), and he decided to take it upon himself-f to send an email- to Dean Quatrano of the engineering school, who, as you are aware, contacted you. It was originally my father's intention to not share the fact that he had sent an email with me, as I specifically asked him not to do so -- I do not wish my parents to fight my battles for me. He decided, however, to let me know of his actions after he received a response requesting feedback from the students. This is what has prompted me to write to you this evening.

I decided I would wait about one week after receiving the email from my father to allow any changes to take place, and then report back. Unfortunately, I believe Professor Feldman has made very Iitt1e improvement, and there are still- several areas in which I have major concerns.

First of all, it is my understanding that his teaching methods were too theoretical and needed to be brought down to Earth a bit. This has not changed much, as many of classmates , including myself, are still very confused by several topics. My suggestion would be to introduce a topic, and do basic, and progressively more difficult examples of the types of problems we would run into on an exam. Prof. Feldman refers us to an online open course-ware from an MIT differential equations class from several years ago (which I will go into more depth on, shortly) , where the professor does just that; he is very good at teaching, but it is extremely difficult to learn a math course online.

While the MIT OCW site has its benefits, I believe I t is far overused in the class. Almost all of the homework sets assigned are the set posted to the website, which, while relevant, are not the best practice, as they are very dissimilar to the questions we see on exams. There is also a major discrepancy in the way he teaches the class vs. the way it is taught in the MIT lectures vs. the way it is taught in the book. His teaching style is based upon his own notes which appear to have complet.ely neglected the book's style of teaching, which makes me question why I bought the book, as I rarely use it, and as I mentioned before, it is far too conflicting to supplement his teaching with video lectures. There is also a huge problem with his notes in that they almost entirely theoretical, with very basic examples worked in every now and again, to which he often only writes a general solution, without working through the

problem, almost as if he assumes we already know how to do this and his examples are meaningless.

As of this past week he had promised to do several days of pure examples of problems, but has yet to deliver on that promise.

With Exam 3 coming up next week, I am extremely concerned about my ability to perform on the test, as this is what would appear to be the most difficult course material. What I believe would be beneficial to the students would be an exam outline (something he has thus far refused to make), and a practice exam, if not at least several practice problems that would be typical- of what we may see on thls

exam.

As it sits now, f currently have a 'D' in the course and I am sure that I am not the only one. I would estimate, from looking at the distributions of the first two exams, that it could be up to 1-/5 or more of the class which is currently in my position or worse. I feel, at least personally, that this grade does not reflect my understanding of the course, nor does it the time that I have spent working on it. I have taken advantage of the TA recitations, and they have a positive, but limited impact on my understanding of the material.

I do not wish to arbitrarily complain about every small thing in feel that these are problems that urgently need to be corrected large portion of the class in jeopardy of either not passing, or

their respective GPAs.

Thank you for taking an interest in the matter, and I am hoping use to you as you continue to try and improve this course.

Sincerely,