

Dennis The – Teaching Statement

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As a teacher, I consider it a privilege to be involved in the training of future mathematicians, scientists, engineers, economists, etc. Teaching is much more than a mere transfer of facts. A teacher's actions carry lasting consequences: at two extremes, he can ignite sparks of enthusiasm or evoke deep feelings of frustration for a subject. My goal is always to give a solid foundation for the given subject material, but also to teach my students that mathematics is interesting, relevant, and fun.

The following key principles underlie my personal approach to teaching:

Engage students: Learning is not a spectator sport. Students must play an active role in their learning, both inside and outside the classroom. On the teacher's part, this begins by encouraging questions, challenging them, and presenting the material in an interesting manner.

Respect students: I treat all questions as valid ones and make sure to never be dismissive. Students should not feel intimidated to ask questions since this is essential to their learning process.

Prepare lectures thoroughly: I have attended many improvised lectures where the teacher was disorganized and ended up confused because of some inadvertent mistake. While small mistakes are forgivable, regular occurrences of mistakes wastes time and can be distracting for students. Thorough preparation helps me to reduce unintentional mistakes and allows me to focus on interacting with students.

Give prompt feedback: It is important to fix misconceptions early, so I ensure that assignments are returned in a timely manner. Common misconceptions are discussed in class. I post solutions on my course website. I encourage students to come to my office hours to resolve any further difficulties.

Set realistic expectations and fair forms of evaluation: It is important to create assignments that are challenging, yet not too difficult so that the student gets intimidated. By the opposite token, assignments and tests should not be too easy, as students would not get any sense of accomplishment out of these. Fairness is of crucial importance in setting grading policies.

I begin every class with a brief recap of the material covered in the previous lecture. One idea which I used in teaching my calculus classes was to start every class with a "warmup" problem. This is typically a very short problem which I put on the board five minutes before the class begins. I choose a question that recalls a basic concept from my previous lecture or targets a topic that I found was a source of difficulty for the students on an assignment or test. This helps students to get into the right frame of mind and encourages them to attempt the problem themselves before I discuss the solution.

Outside the classroom, I truly enjoy interacting with students during my office hours. It is during this time that I can quickly pinpoint any conceptual difficulties or misconceptions and guide the student to correcting them. Moreover, it helps me to keep my own skills sharp and reinforce my own understanding of the subject. I also like asking students about their aspirations and answering their questions about how mathematics might play a role along their career path.

I enjoy course planning because in the process of doing so, I often improve my own understanding of a subject. Designing a course in a way that allows students to quickly get to the heart of the ideas can be a time-consuming task. However, it is a task that is both important and rewarding.

Summary of Teaching Activities

- Instructor, ANU – Math 3228/6213: Honours Complex Analysis (Semester 2, 2013 & 2014)
- Instructor, TAMU – Math 323: Honours Linear Algebra (Spring 2011)
- Instructor, TAMU – Math 602: Methods and Applications of PDE (Graduate course, Spring 2010)
- Instructor, McGill – Math 262: Intermediate Calculus for Engineers (May 2007)
- McGill Graduate Teaching Development Workshop (Jan. 2007)
- Coordinator and tutor at the McGill Math Helpdesk (2005 – 2008)
- Instructor, UBC – Math 180: Differential Calculus with Physical Applications (Spring & Fall 2002)

Some Recent Teaching Evaluations and Student Comments

ANU – Math 3228/6213: Honours Complex Analysis (Semester 2, 2013)

Question	Score (out of 5)
I had a clear idea of what was expected of me in this course	4.3
The teaching and learning activities supported my learning	4.4
I had ready access to the learning opportunities provided in this course (eg. course notes, online materials, library resources, field trips)	3.8
The assessment seemed appropriate given the goals of the course	4.2
The feedback I received during the course supported my learning	4.5
Overall, I was satisfied with my learning experience in this course	4.5

- *Dennis did fun things like the image plot of different functions and the game in class having to guess them. Really nice! Also, he would often ask questions and call out student's names to answer them. The way to go to encourage participation!*
- *The big strength of the course was the organization of the lecturer Dennis. His lectures were highly organized and the notes were so good I didn't have to study from any other textbook but just from the notes in class. This is the first time I've done this in university after having been here for so long! The fact that I could study from the notes taken in class goes to show the high quality of Dennis' lecturing. Really top notch! Also, it was very good that there were heaps of examples and a lot of concrete computations worked out in class. No qualms about the style of teaching at all!*

TAMU – Math 323: Linear Algebra (Spring 2011)

(No questions with numerical responses. All feedback was given in terms of student comments.)

- *He was a great instructor. He was always helpful before and after class, during office hours, and while he lectured. He never minded us asking questions. He always paused during lecture to ask if we understood.*
- *Our lectures were a great learning environment.*
- *He was down-to-earth and always wanted us to learn. He was challenging, but he is a great instructor and understands the material as well as the questions we ask.*
- *Yes, I recommend the instructor. It wasn't easy, but he said that upfront. He is willing to help and definitely passionate.*



Course Evaluation
MATH3228 Complex Analysis Honours, Sem 2 2013
 6 Enrolments; 10 Responses

Overall indicators

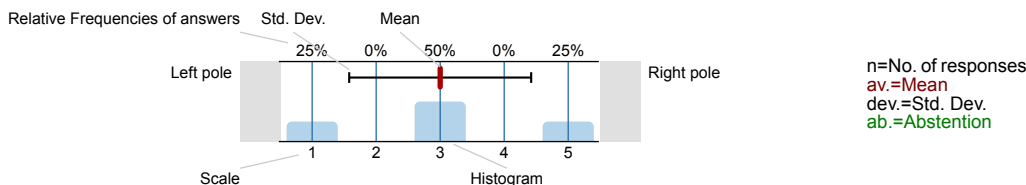
Experience of learning:



Survey Results

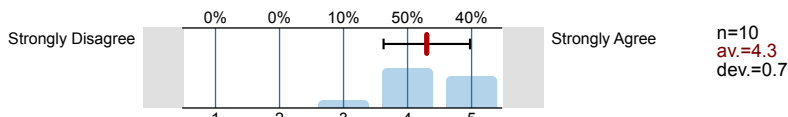
Legend

Question text

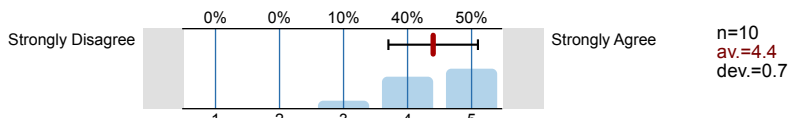


Experience of learning:

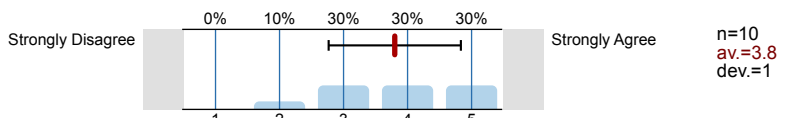
1. I had a clear idea of what was expected of me in this course



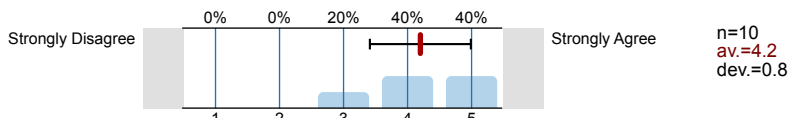
2. The teaching and learning activities (eg. lectures, tutorials, field trips) supported my learning



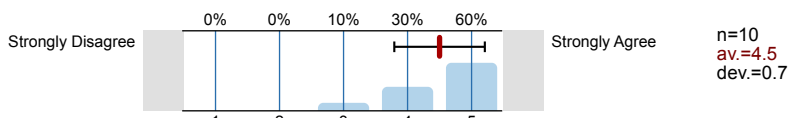
3. I had ready access to the learning opportunities provided in this course (eg. course notes, online materials, library resources, field trips)



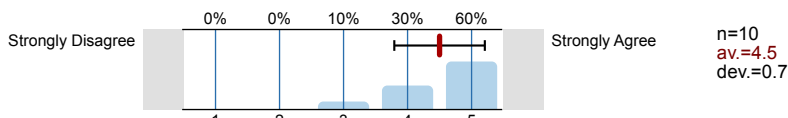
4. The assessment seemed appropriate given the goals of the course



5. The feedback I received during the course supported my learning



6. Overall, I was satisfied with my learning experience in this course



Additional information

Is this a required or elective course for you?



Are you a full-time or part-time student?

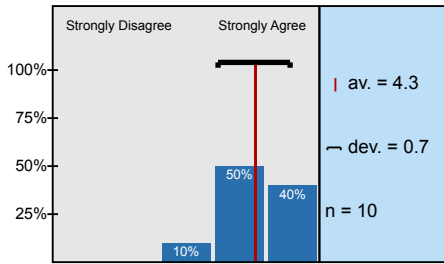


Are you a domestic or international student?

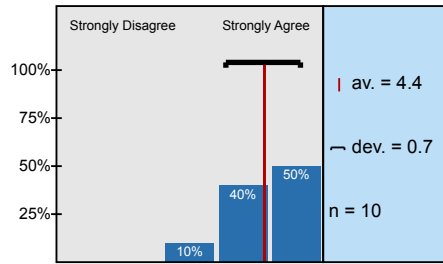


Histogram for scaled questions

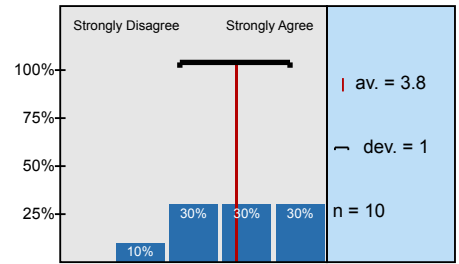
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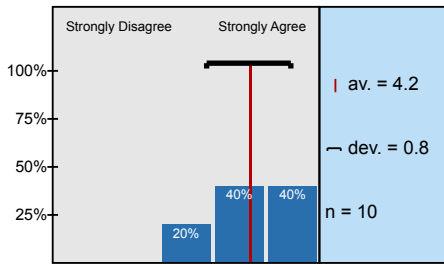
2. The teaching and learning activities (eg. lectures, tutorials, field trips) supported my learning



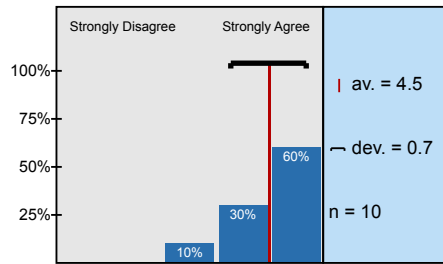
3. I had ready access to the learning opportunities provided in this course (eg. course notes, online)



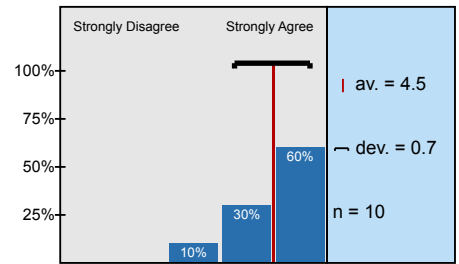
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Comments Report

Additional information

What were the most notable strengths of the course?

- *The structure of the course was very clear and thematic
 - * the content was cool
- -Engaging, informative, useful lectures
 - Regular and relevant homework problems
- I really enjoyed taking Complex Analysis this semester, mostly due to Dennis's enthusiasm for teaching the subject. I found him very approachable and easy to talk to. Dennis sought different ways to interest us and was very patient in answering questions, which he actively encouraged being asked. Classes had a relaxed atmosphere and were enjoyable.
- The big strength of the course was the organization of the lecturer Dennis. His lectures were highly organized and the notes were so good I didn't have to study from any other textbook but just from the notes in class. This is the first time I've done this in university after having been here for so long! The fact that I could study from the notes taken in class goes to show the high quality of Dennis' lecturing. Really top notch!

Also, it was very good that there were heaps of examples and a lot of concrete computations worked out in class. No qualms about the style of teaching at all!
- The course went very well in depth into the concepts.
- Was able to get feedback from previous assignments throughout the course.
 - Was able to get a lot of support from the lecturer during office hours.
 - Worked examples allowed more learning and a better understanding.

What suggestions for improvement would you like to make?

- *A "road map"(like the one on wattle) would have been useful in the very beginning of the course too-something outlining the main ideas/theorems in the course (without detail) and the links between the ideas, so we know where the course is heading
 - *Writing on the board is a good idea-but copying down notes sometimes makes it hard to absorb the content as you go, especially when the lecture is really dense and there aren't many chances for the lecturer to pause and explain the intuition
- - A set of course notes
- In future, it would be good if the course covered material like analytic continuation which we didn't do. That was the only downside. Also, I found Dennis a little pedantic in his marking, he would take marks off for the most trivial of things!
- More course notes made available through wattle.
- More tutorials and non assessed problem sets.
- Smaller syllabus.