Teaching statement

Amod Agashe

In this article, I describe my teaching experiences briefly and outline my teaching philosophy.

My teaching experiences:

**Florida State University**, 2005 – present:
*Assistant Professor*: Taught Applied Linear Algebra (undergrad) in Fall 2005, Calculus III (undergrad) in Spring 2006, two graduate courses in Fall 2006 (“Groups, rings and vector spaces I” and “Advanced topics: Elliptic curves”), the graduate course “Groups, rings and vector spaces II” in Spring 2007; currently teaching the graduate courses “Groups, rings and vector spaces III” and “Advanced topics: Algebraic number theory” in Fall 2007.

**University of Missouri at Columbia**, 2003–2004:
*Assistant Professor*: Taught Calculus II, Discrete Mathematics (both twice), and graduate courses titled “Elliptic curves and cryptography” and “Algebraic Number theory”.

**University of Texas at Austin**, 2001–2003:
*Instructor*: Taught the calculus course “Sequences, series, and multivariable calculus” thrice, an upper-division undergraduate course “Discrete Mathematics” twice, and a graduate course “Number theory and cryptography”.

**NSF sponsored IAS/Park City Mathematics Institute, Utah**, July 1999:
*Teaching assistant*: Led problem sessions for the Graduate Summer School courses titled “Elliptic curves” and “Open problems”.

**University of California, Berkeley**, Aug 1994–Dec 1999:
*Graduate student instructor*: Led discussion sections for at least 8 lower-division Mathematics classes, including two head teaching assistantships. Courses include Calculus for social sciences majors, Calculus for science majors, and Honors Linear Algebra.

**Summer Institute in Mathematical Sciences, Berkeley**, Summer 1997:
*Teaching Assistant*: Led discussion sessions for the course “Computational Linear algebra”, part of a summer program for women undergraduate students in mathematics from all over the United States.

My teaching philosophy:

The principles that I discuss below arose partly out of a course on teaching that I took at U. C. Berkeley, partly out of my experiences in teaching and observing others teach, and partly out of feedback from students.

Preparation and organization:
I prepare the material well so that I can use the class time effectively. I give considerable thought to the organization of the course, e.g., deciding the dates of the midterms. I also maintain a course webpage where I post office hours, homeworks and other important announcements (for example, see http://www.math.fsu.edu/~agashe/grv3.html or http://www.math.fsu.edu/~agashe/calc3.html).
Presentation:
- I pay attention to the efficient use of the blackboard, legibility of handwriting, clarity of speaking, and the pace of the presentation. One novel thing I do is to write down sufficient information on the board (e.g., certain reminders, remarks, etc.) so that if a student is late or was momentarily not paying attention, he/she can get back on track.
- When I am lecturing, I motivate the concepts by starting with an example. For example: to introduce differential equations, I discuss the problem of computing how long it takes an object to reach the ground when dropped from the top of a building (this leads to a differential equation coming from Newton’s law of motion). Also, after stating the definitions and propositions, I often illustrate them with examples (and counterexamples).
- When I am teaching, I try to be fair to everyone and not just target the weakest or the strongest students (e.g., when deciding the pace of presentation of the material).
- Whenever possible, I use modern presentation technologies in class. For example, a few times when I taught Calculus courses, the lecture hall had a computer-projector system, and I used it to demonstrate Calculus concepts by using software available on the internet (e.g., graphing in polar coordinates). Also, in the summer course on computational linear algebra mentioned overleaf, I demonstrated how to use MATLAB to solve linear algebra problems.

Involving the audience:
- I try to create interest in the subject by connecting it to real life (if possible): even if the mathematics that is being discussed may be somewhat dry, it becomes interesting when applied to real life problems.
- In order to check that the students are following me when I am lecturing, I pause frequently and ask them if they have any questions. While working out a problem in class, I often ask the students for their input, to keep them interested, and to check that they are not lost.
- I encourage students to ask questions. I believe teaching should be a dialogue: the more the interaction, the better.

Student-Teacher interaction:
- I strive to build a good rapport with the students, by being friendly and helpful. I have found that students appreciate it when the teacher cares about their concerns and addresses their problems.
- I encourage people to come to my office hours and make sure I am accessible. I consider it important to help even the weakest students, treating them with patience, and making them feel comfortable.

Feedback:
- I take teaching very seriously, and I care for the students and their performance. On the very first day of every course, I tell the students to feel free to make suggestions for improvement at any point during the course.
- I try to take continuous feedback from students, e.g., by holding a mid-term survey, and change my styles based on what they find best and what I think is good for them. For example, in one of the Calculus courses, the students pointed out that my writing speed on the board was too fast for them to copy the material being presented, so I slowed down my writing pace. My main objective is to make sure that the students benefit as much as possible from my teaching.

Why I enjoy teaching:
I love interacting with students, and it gives me immense satisfaction to be of help to others. Also, teaching gives me a chance to contribute to the society.
Sample Teaching Evaluations
Amod Agashe

From my teaching assistantship at the Summer Institute in Mathematical Sciences, Berkeley 1997:

7. Please comment on the TA’s teaching effectiveness and rapport with you.

Amod’s a good guy. He was always willing to help the students out in class and with the computers. Amod and I developed a good rapport. I noticed that he was very devoted to the program and dedicated to the notion of getting to know the students.

7. Please comment on the TA’s teaching effectiveness and rapport with you.

The TA’s teaching is very effective, and the TA is very friendly and helpful. The important thing is that the TA is willing to help me. The TA never made me feel that I am a stupid person asking stupid questions. The TA is always willing to help every student. He is a very good TA.
STUDENTS’ EARLY FEEDBACK

Math 175  SECTION 8  INSTRUCTOR Agashe  EVALUATION DATE 9/12/03

A. MY INSTRUCTOR

<table>
<thead>
<tr>
<th></th>
<th>ALWAYS</th>
<th>MOST OF</th>
<th>OCCASIONALY</th>
<th>NEVER</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Presents the information in a clear and well-organized manner</td>
<td>9</td>
<td>11</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Uses class time effectively</td>
<td>14</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Is well prepared for class</td>
<td>18</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Uses good examples &amp; illustrations</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A. Encourages and answers students’ questions</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A. Is easy to understand, speaks clearly &amp; audibly</td>
<td>9</td>
<td>10</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Writes and draws at the board legibly</td>
<td>8</td>
<td>11</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Is available and willing to help during office hours</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>A. Starts class on time</td>
<td>20</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Dismisses class early</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

11. How would you rate the overall effectiveness of your Instructor on the scale below?

Excellent  Good  Average  Poor  Very Poor

10  9  3  (continued on back)
Instructor: Amod Agashe
Department: MATHEMATICS
Course: MAC2313 (CALC W/ANLYT GEM III)  Section#: 03  Ref#: 06518
Forms Ordered: 43 Responses: 31 (72%)
Procedural Discrepancies:

Section A Demographics
1. What is your year in school?

2. What is your overall cumulative GPA?

3. What grade do you expect to receive in this course?

4. Is this a required course for you?

Section B Course & Instructor Details
1. This course challenged me to think deeply about the subject matter.
2. The course materials (e.g., textbooks, course pack) helped me better understand the subject matter.
3. The course assignments helped me better understand the subject matter.
4. The instructional techniques engaged me with the subject matter.
5. The instructor was concerned about whether the students learned the subject matter.
6. The instructor was enthusiastic about the subject matter in the course.
7. The instructor was enthusiastic about teaching this class.
8. The instructor clearly communicated what was expected in this class.
9. The instructor expressed ideas clearly.
Spring 2006 SPOT MAC2313 03, Amod Agashe

Section B Course & Instructor Details (continue)

10. The instructor provided helpful feedback on my performance.
11. The instructor evaluated my work fairly.
12. The instructor treated students with respect.
13. Students were able to get individual help.

Section C Overall Course & Instructor Assessment

1. Overall, I learned a great deal from this course.
2. If a friend were taking this course, I would recommend this instructor.
3. If I were taking another course in this subject area, I would choose this instructor again.
4. Overall, considering its content, design, and structure, this course was
5. Overall, considering the constraints and opportunities inherent in the subject matter, this instructor was

Section D SUSSAI (State University System Student Assessment of Instruction)

1. Description of course objectives and assignments
2. Communication of ideas and information
3. Expression of expectations for performance in class
4. Availability to assist students in or out of class
5. Respect and concern for students
6. Stimulation of interest in the course.
7. Facilitation of learning.
8. Overall assessment of instructor.