"This class increased my interest in math as a possible minor."

"I worked the most in this class than in any of my other classes"

"I enjoyed the 'hands' on approach to the class, learned lots."

From the response scores and feedback from the students, I feel that this course was a success. I will continue to incorporate active learning as a vital component of the course and will experiment at varying some of the topics by switching out two at a time. Course structure will remain the same. Another thing I am considering is analyzing a real world problem like data mining for example where one is searching for a pattern in some real world data. An example can be making predictions on stock pricing based on previous data or finding statistical patterns in population data of a predator prey system from biology. I would then choose the topics of the course that correspond to this given central problem. We would then learn the mathematics necessary to solve this problem by the end of the class. One idea is to have the students work as teams and as a final project, submit their approaches and solutions. This would be a great way for the students to gain quantitative skills while tackling a real world data dependent problem. The interdisciplinary nature of such a project will be useful for their work in their respective majors. I am very excited at the prospect of such an endeavor with the Whittier students.

2.2.4 Math 141B Spring 2013

Math 141B is the second part of a two course sequence of calculus courses. From the course catalog, the description follows:

> **Math141 A,B Calculus and Analytic Geometry I-II** First two semesters of a three-semester unified course in analytic geometry and calculus: progresses from functions of one real variable, their derivatives and integrals, through multivariate calculus; topics from infinite series and differential equations. Prerequisite: 85 or sufficient score on math Placement Exam. Two semesters, 4 credits each.

This course had 16 total students, 8 of which were from my previous 141A course the previous semester. There was lecture 4 days a week and a lab portion that meets once a week. The lab utilized MATLAB much as we did in 141A. Each class meeting was for a period of 50 minutes. Grading was based on homework (20%), lab (10%), two midterms (total 40%), and a final exam (30%). The homework also included graded active learning worksheets from class. I utilized the same format and methodology from 141A. The evaluation summary for this course can be seen in Table 4. In general, the evaluation scores pertaining to the course and professor are quite high, albeit a bit lower than in 141A. On the other hand, those responses pertaining to the students are quite a bit lower than those in 141A. For example, questions 2-8 are quite low. In particular, question 8: "I was satisfied with my performance in this course" registered at a 3.54/5. This response seems to go hand in hand with question 11: "This course was academically challenging," where the response was a 5/5. I take this as the course was quite challenging for the students and their expectations on their performance were not as high as in 141A. There can be several reasons for this. One possibility may be that

Table 4: Math 141B, Spring 2013, 16 Students

	Evaluation Questions	Average Response
	I. Student Self-Evaluation	
1.	I attended class regularly.	4.92
2.	I was academically prepared to handle the material.	4.23
3.	I came prepared for each class session (i.e. have read all course readings and completed assignments).	4.15
4.	I actively participated in class discussions.	4.25
5.	I attended scheduled office hours if I had questions about the course materials.	3.62
6.	I tried to relate course material to other things I know and/or study.	4.50
7.	I worked to my full potential in this course.	4.23
8.	I was satisfied with my performance in this course.	3.54
9.	I had a strong desire to take this course.	4.46
	II. Course	
10.	This course had clear goals and objectives.	4.77
11.	This course was academically challenging.	5.00
12.	This course offered useful learning tools.	4.38
13.	This course had grading criteria that were clearly identified.	4.69
14.	This course improved my understanding of the material.	4.38
15.	This course increased my interest in the subject matter.	4.62
16.	Overall, I would recommend this course to others.	4.46
	III. Professor	
17.	The professor used class time effectively and demonstrated preparation for class.	4.92
18.	The professor's teaching style and/or enthusiasm for the material strengthened my interest in the subject matter.	4.92
19.	The professor was able to explain complicated ideas.	4.23
20.	The professor challenged students to think critically and/or imaginatively about the course material.	5.00
21.	The professor provided clear and timely feedback.	4.23
22.	The professor encouraged meaningful class discussions.	4.75
23.	The professor was receptive to differing views.	4.00
24.	The professor was available for help outside of class.	4.54
25.	Overall, I would recommend this professor to others.	4.77

half of the class were new members coming from different mathematical backgrounds and it may take some time getting used to active learning. Some responses include:

> "Loved the course. The active learning really helped me better understand the material"
>
> What were the best aspects of the course: "The in class exercises and labs"
>
> What were the best aspects of the course: "The group activities! They helped a lot by actually making us think and solve things on our own"
>
> "Lab's were very challenging but useful to use real modeling. Group work in class helped a lot."
>
> What were the best aspects of the course: "Challenging and fair."
>
> "I honestly believed I was going to fail but with Dr. Park's encouragement I find myself close to an A. He's the best!"
>
> "Not quite satisfied as it was very challenging."
>
> "For the difficulty of this course I will be proud of any grade I get b/c I understand the material."

Most students commented on the difficulty of the course and their expected performance was far lower than anticipated in 141A it seemed. My overall feeling is that this course challenged the students quite a bit over their previous calculus courses. I see this as a positive and beneficial property. One interesting thing to note is that in question 20: "The professor challenged students to think critically and/or imaginatively about the course material," the average response was a 5/5. Despite the course being challenging, it stimulated the students critical thinking about the course material. Nonetheless, perhaps scaling back a bit on the pace and depth of the material in the beginning of the course would allow students at differing levels to catch up and also give them a chance to adjust to an active learning classroom if they have not participated in one before. This is something that I have implemented in my courses this semester.

2.3 Current and Future Courses

2.3.1 Current Courses

I am currently teaching two new courses:

1. Math 354: Mathematical Modeling
2. Math 241: Vector Calculus

Math 241 is the third semester of calculus and is referred to as vector calculus. My class consists of science and social science students as well as 3/2 engineers. It is an eclectic group of students. More than half of the class are students that also took my math 141A and 141 B calculus I and II courses respectively. It is of great benefit