

18.330 Introduction to Numerical AnalysisSurvey Window: Spring 2013 End of Term | [View Current Catalog Entry](#) | [Print Report](#)

Report Includes Data for:

Students: For credit

Subjects: 18.330 Introduction to Numerical Analysis - Lecture L01

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Eligible to Respond: 19 ? Total # of Respondents: 13 ? Response rate: 68% Overall rating of subject: 6.2 out of 7

Download Set of Individual Student Responses: [Show/Hide Comments](#)**INSTRUCTORS**

QUALITY OF TEACHING	<i>1=Strongly Disagree, 4=Neutral, 7=Strongly Agree, N/A=Not Applicable (7 is best)</i>								Overall rating
	Stimulated interest	Defined goals	Well-organized presentations	Encouraged role in learning	Encouraged participation	Used good examples	Used media well	Available	
Reid, McMahon Thomas Homer , Lecturer (LEC)	6.5 (13)	6.2 (13)	6.2 (13)	6.2 (13)	6.1 (13)	6.2 (13)	6.2 (13)	6.3 (12)	6.5 (13)

1=Very Poor, 7=Excellent, N/A=Not Applicable (7 is best)

Reid, McMahon Thomas Homer, Lecturer in Lecture L01 - Overall rating: 6.5

QUALITY OF TEACHING	<i>Rating Scale: 1=Strongly Disagree, 4=Neutral, 7=Strongly Agree, N/A=Not Applicable (7 is best)</i>								STDEV	
	AVG	1	2	3	4	5	6	7		RESPONSES
Stimulated interest	6.5								13	0.78
Defined goals	6.2								13	1.17
Well-organized presentations	6.2								13	1.01
Encouraged role in learning	6.2								13	1.41
Encouraged participation	6.1								13	1.38
Used good examples	6.2								13	1.01
Used media well	6.2								13	1.34
Available	6.3								12	1.23

Rating Scale: 1=Very Poor, 7=Excellent, N/A=Not Applicable (7 is best)

	AVG	1	2	3	4	5	6	7	RESPONSES	STDEV
Overall rating	6.5								13	0.66

Comments on Teaching:

[Student 1360](#) - Sometimes writing too slowly; some of the stuff is actually unnecessary, e.g., no need to spell terms like "Newton-Cotes Quadrature" if these are included in the notes.

[Student 10777](#) - Very energetic, loved the examples and coding snippets with cool diagrams.

[Student 12734](#) - Really good teacher, engaging. Near the end of the class, lectures got slightly confusing and harder to follow.

[Student 12852](#) - didn't seem super organized and would have liked a written-up assignment for the final project.

[Student 21327](#) - I would like my classes a lot more if everyone taught like you. This is especially true of math teachers, a lot of whom just stand there with their back to the class and mumble as they derive some proof. I understand that teaching is difficult, so I do not really fault them, but it's definitely a relief to get a professor who

I actually enjoy learning from. The notes are great (without the typos). Some of the lessons were slightly repetitive. I think it's ok to go over the same things multiple times, but I think a different approach should be taken each time (instead of just writing it on the board again). Maybe cold call on students. This is especially important in Fourier analysis. You probably went over the equations 100 times, but after the first few times, I tuned out because I had seen the equations before. But then if you ask me to write down the exact equations, I would have trouble. Most of all, you seem interested in the topics you are teaching and showing passion about the subject makes a huge difference.

[Student 23851](#) - I liked the fact that you were ambitious with your course. Many instructors continually cut their curricula. Don't do this, part of the strength of this class is the feeling that you're learning things that'll be useful. The class was well lectured, and the online notes were fantastic. Thank you for a great class.

[Student 35946](#) - Homer has by far been one of the best teachers I've had in my four years at MIT. Numerical analysis is not really a topic I had ever really considered previously and I'm ending the semester feeling like a giant door has just been opened to a world of really interesting mathematics. I think that the subject learning goals were well defined (despite falling behind in the syllabus, the schedule was updated throughout the semester to reflect the current goals). The presentation of the material is really the biggest area I see room for improvement which also addresses some of the slips in the schedule. Many classes began with a "review" of the previous lecture or concepts which often times ended up lasting 20-30 min. Although useful sometimes, in general I found it a little unnecessary and would instead have preferred a quick 5 min review before the new material was presented. I think that in the future this would also allow more of the topics to be covered. Homer was both very approachable inside and outside of class which was greatly appreciated. The typeset notes, and original psets were both indications of the amount of time he was putting into the class which left students feeling he truly cared about our understanding of the material which is in itself quite motivating.

[Student 39913](#) - Hands down the most accessible and most engaging professor I have ever had. Homer is great!

[Student 50780](#) - Did an outstanding job of putting together curriculum; course notes were lucid and highly informative. Presented material in a way such that I am satisfied with my understanding of the theory and I expect to be able to apply it to problems in a very useful way. He was very much available outside of class whenever students had questions, and did a good job explaining not only the material, but also why the material is interesting and useful.

[Student 52421](#) - Blackboard use! Don't use the back board, it causes so many problems. And split boards into columns, it helps prevent shuffling the blackboards all the time. On the other hand, I loved the class, as you can see from the rating.

SUBJECT

FACTORS IN LEARNING

Rating Scale: 1=Strongly Disagree, 4=Neutral, 7=Strongly Agree, N/A=Not Applicable (7 is best)

	AVG	1 2 3 4 5 6 7	RESPONSES	STDEV
Lectures contributed to my learning	6.4		13	0.87
Recitations contributed to my learning	0.0		0	0.0
Electronic materials accessible	6.5		13	0.88
Textbooks and other readings accessible	6.0		7	1.29
Electronic materials effective	6.7		13	0.48
Textbooks and other readings effective	5.8		6	1.33

ASSESSMENT OF LEARNING

Rating Scale: 1=Strongly Disagree, 4=Neutral, 7=Strongly Agree, N/A=Not Applicable (7 is best)

	AVG	1 2 3 4 5 6 7	RESPONSES	STDEV
Exams measured what I learned	6.0		13	0.82
Problem sets helped me learn	6.3		13	0.95
Feedback on assignments was helpful	4.5		13	1.85
I have a good understanding of the concepts	5.6		13	1.26
I can apply the concepts	5.8		13	1.17
I learned a great deal	6.2		13	0.9

SUBJECT

Rating Scale: 1=Too Slow, 7=Too Fast (4 is best)

	AVG	1 2 3 4 5 6 7	RESPONSES	STDEV
Pace slow... fast	4.0		13	1.0

	AVG	RESPONSES	STDEV
Avg hrs spent per week in class	2.9	13	0.28
Avg hrs spent per week in lab	0.0	11	0.0
Avg hrs spent per week on homework	9.4	13	3.36

Rating Scale: 1=Strongly Disagree, 7=Strongly Agree (7 is best)

	AVG	1 2 3 4 5 6 7	RESPONSES	STDEV
Graded fairly	5.1		13	1.19

Rating Scale: 1=Too Light, 7=Too Heavy (4 is best)

	AVG	1	2	3	4	5	6	7	RESPONSES	STDEV
Workload light... heavy	5.3								13	0.95

Rating Scale: 1=Very Poor, 7=Excellent (7 is best)

	AVG	1	2	3	4	5	6	7	RESPONSES	STDEV
Overall rating of the subject	6.2								13	0.8

Comments on Subject Content:

[Student 1360](#) - Notes are updated a bit slowly. It is not so important to have a review session before the exam.

[Student 10777](#) - The class moved too quickly near the end

[Student 12734](#) - Subject content was cool and interesting.

[Student 35946](#) - The lecture notes were great and consistently very helpful for the problem sets and reviewing for the exam. I already commented specifically about the structure of lecture in the "teacher specific" area, but again I just think a little bit less review to get to the new material faster would allow for more topics to be covered. I feel like a lot of people will probably mention the length of the psets. Homer consistently found himself underestimating how long the students would be spending on the psets which I think ultimately stemmed from a slight disconnect between the amount of time it most likely takes him to debug code for these types of computations and how long it took the students. I would, however, like to suggest that the psets were of a fair length and difficulty and shouldn't be cut down that much. The problems gave us an opportunity to apply every concept we hit in lecture (with the exception of monte carlo integration) and by using the same functions and scenarios throughout (the integrands specifically) we got the chance to sort of realize over the semester how the advancements in the field have radically improved certain areas of computation relevant for various fields. I would definitely recommend this subject to undergraduate math majors (and other relevant disciplines) and think Homer did a great job overall.

[Student 39913](#) - Great content. A bit too much work at times but super valuable learning experience.

[Student 50780](#) - Homework assignments for the second half of the course took much more time than for the first. I probably learned more from those assignments, but it was difficult to manage time.

What additional constructive feedback can you offer the instructors which might help improve the class?

[Student 10777](#) - Less material near the end, especially since all the classes have projects near the end.

[Student 12734](#) - The problem sets were slightly too hard at times and coding in JULIA was a pain. Some psets I spent more time coding than doing math.

[Student 21327](#) - The problem sets are way too long. I think I spent over 10 hours on almost every problem set. Computation can take a long time (some questions are designed that way). Debugging in julia is not easy and the documentation for julia is not the best. I think spending a class on showing julia examples will help a lot.

[Student 35946](#) - One thing I realize I find myself wondering about now at the end of the semester is grading because I'm not sure if it was every very well defined. Yes, the syllabus states the 25,25,25,25 breakdown, but I am not really sure if there will be a curve, the distribution of A's, B's, C's and just overall Homer's goals in terms of assigning grades. I think in the future this could be defined a little better. Maybe the data from our semester will provide a good baseline for things like "spring 2013 students had a median of 84%" for example just so people have an idea of what is reasonable to be shooting for. Furthermore, there have been a lot of opportunities for extra credit. I have really appreciated these in terms of challenge problems throughout the pset (Euler product formula for example) and the other ones encouraging us to read satirical journal articles that aren't necessarily relevant to numerical analysis, but rather to math/science as a whole. One issue that arises with extra credit though is that in a class with a curve if the curve is determined including extra credit well then it wasn't really extra credit. Definitely not complaining about the extra credit, I think it's great actually, but I think that in the future if these opportunities still exist it should be clarified how exactly they will affect the final grades (the it can only help you not hurt you explanation would suffice).

[Student 39913](#) - Homer's version of "short" psets are not very short. Psets took a long time. I learned a ton from them but they took a long time.

[Student 50780](#) - Sometimes blackboard organization in lectures was not the best. I don't really know how to explain this more specifically, since blackboard organization is an art that I certainly have not mastered. It wasn't a huge problem. Also, having a test at the end of the next-to-last week of class, followed by a final project due the week after, as well as a pset assigned the week of that test, is a lot to deal with. I'm not sure if there would be a more pleasant way to structure the timing so that people would learn the same amount of material just as well.

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