

## Shankar Kulumani Teaching Linear System Dynamics 3134 Undergraduate Lecture section: 10 2017 Spring

There were: 56 possible respondents.

	Question Text	N	Top Two	My Avg	MAE Avg	MAE SD	Div Avg	Div SD	Gen Ed Req	Maj/Prog Req	Interest	Instructor	Fits Schedule	Advisor Rec	Friend Rec	Other				
1	Primary reasons for taking course	36							39%	89%	11%	0%	8%	3%	0%	0%				
									Not At All - 1	2	3	4	Completely - 5	N/A						
3	Covered objectives	35	91%	4.5	4.5	0.8	4.5	0.9	0%	0%	9%	37%	54%	0%						
									Lectures	Discussions	Clickers	Activities	Homework	Labs	Project/Folio	Teamwork	Presentations	Guest Lecturers	Fieldwork/Trips	Writing Other
4	Contributed to learning	36							100%	17%	0%	6%	78%	0%	0%	0%	0%	0%	0%	3%
									Yes	No										
6	Academically prepared	35	91%	0.9	0.8	0.4	0.8	0.4	91%	9%										
									1 Hour Or Less	1-2 Hours	3-4 Hours	5-6 Hours	7-8 Hours	9-10 Hours	11-13 Hours	13-15 Hours	15+ Hours			
7	Time on coursework outside of class	36							0%	8%	44%	25%	14%	8%	0%	0%	0%			
									Memorizing	Applying Basic	Synthesizing	Judgments	Applying New	Solve Problems	Thinking	Teamwork	Reading	Presentation	Lab	Writing Other
8	Significant aspects	36							39%	72%	42%	22%	56%	86%	39%	3%	6%	0%	0%	0%
									Not At All - 1	2	3	4	Very - 5	N/A						
10	Intellectual challenge	36	97%	4.6	3.9	1.0	3.9	1.0	0%	0%	3%	31%	67%	0%						
									Little - 1	2	3	4	Lot - 5	N/A						
11	How much learned	36	81%	4.1	3.9	1.1	4.0	1.1	3%	0%	17%	44%	36%	0%						
									Str Disagr - 1	2	3	4	Str Agree - 5							
12	Did best work possible	36	89%	4.3	4.1	0.9	4.1	0.9	0%	3%	8%	44%	44%							
									Str Disagr - 1	2	3	4	Str Agree - 5	N/A						
15	Derive equations of motion	36	92%	4.4	4.6	0.7	4.6	0.7	3%	0%	6%	39%	53%	0%						
16	Properties of transient, steady-state, free, and	36	81%	4	4.2	0.9	4.2	0.9	6%	6%	8%	44%	36%	0%						

	forced responses																					
17	Convert between frequency and time domains	35	83%	4.1	4.2	0.9	4.2	0.9	3%	3%	11%	46%	37%	0%								
18	Analytical and computational solutions for linear systems	35	83%	4	4.2	0.7	4.2	0.7	3%	6%	9%	51%	31%	0%								
19	Compute transient and steady-state responses	36	78%	3.9	4.3	0.9	4.3	0.9	8%	0%	14%	44%	33%	0%								
		N	Top Two	My Avg	MAE Avg	MAE SD	Div Avg	Div SD	Gen Ed Req	Maj/Prog Req	Interest	Instructor	Fits Schedule	Advisor Rec	Friend Rec	Other						
20	Compute frequency response	36	81%	4	4.2	0.9	4.2	0.9	3%	6%	11%	47%	33%	0%								
		Not At All - 1 2 3 4 Very - 5 N/A																				
21	Knowledgeable (Kulumani)	36	86%	4.2	4.6	0.8	4.5	0.9	0%	3%	11%	50%	36%	0%								
		Low - 1 2 3 4 High - 5 N/A																				
22	Enthusiasm (Kulumani)	36	58%	3.7	4.3	1.1	4.4	1.0	3%	8%	31%	31%	28%	0%								
		Str Disagr - 1 2 3 4 Str Agree - 5 N/A																				
23	Treats students with respect (Kulumani)	36	67%	3.8	4.4	1.0	4.5	0.9	3%	11%	19%	33%	33%	0%								
		Not Fair - 1 2 3 4 Very Fair - 5 N/A																				
24	Fair grading (Kulumani)	36	81%	4.1	4.2	1.1	4.3	1.1	3%	3%	14%	39%	42%	0%								
		Not At All - 1 2 3 4 Excellent - 5 N/A																				
25	Feedback (Kulumani)	36	86%	4.2	4.2	1.1	4.1	1.1	0%	8%	6%	42%	44%	0%								
		Poor - 1 2 3 4 Excellent - 5																				
26	Overall rating of instructor (Kulumani)	36	53%	3.6	4.1	1.1	4.1	1.1	3%	8%	36%	33%	19%									

#### Text Responses

**Question: If you selected 'other' as a teaching method, please comment.**

Recitation was more helpful than class

**Question: Use this space for comments on strengths of the course.**

Shankar asked for feedback about half way through the semester and implemented it, which doesn't happen in other classes. He made himself available to help me and sat with me for around an hour while I struggled through what was probably an easy problem.

The material was interesting

Recitation was really helpful.

The class was well focused, two lectures and a recitation was reasonable

The class was well focused, two lectures and a recitation was reasonable
interesting topics
The professor was very easy to understand, the homeworks weren't too long but they were challenging enough
i love transfer functions yo
Professor Kulamani has gone nice and slow with our class, doing plenty of problems with us. The grading in more than fair, I did much better on the midterm than I expected.
Nothing was particularly good about this class.
-good prof, very helpful in office hours -fair homework -learned a lot; lectures are genuinely useful
Having two people that were able to work together (TA and Professor) to present the material in two ways that helped us all understand the content.
It taught a lot of very applicable strategies to solve complex engineering problems with differential equations
It was taught well and the course flowed well
I really appreciated that there was a recitation section, because though the lecture was extremely helpful, it was very theoretical and it is nice to get to work on example problems. The homework problems I also thought were extremely helpful, and this course would benefit from having them every week.
It's a course that covers material that's fairly new to many students that covers the basics and leads into the next course. Examples are instructive and the instructor is honest about wanting everyone to learn from the examples.
<b>Question: Use this space to provide suggestions on how to improve this course.</b>
The class was very confusing, we went though material quickly which was fine but it wasn't really explained well. We left every class with more questions. The textbook was not helpful.
Exams were unnecessarily difficult
homework is not similar to inclass problems
Why was this class taught by a PhD student and not an actual professor? Shankar was very mean in the beginning if you asked any questions which discouraged me from asking questions when I had them. Evan's recitations were helpful, but I never felt fully prepared for the homework questions. Rumor has it that Shankar is going to pull from PhD entrance level exams for our final because he was unhappy with the midterm scores.
Was afraid to ask questions in class because there was a lot of belittling responses. I wasn't very motivated to go to class, all the material was covered in the textbook in a similar manner to class and I knew that the professor wasn't going to be much help if I was struggling on a detail. I mostly relied on my peers to help me with that.
I would suggest that you include a project that applies the concepts learned in the class to create a computer model and simulation of some mechanical or electrical system put under some set of periodic loadings. It could be required or could be for extra credit and completed using Matlab. I think it is important to draw more parallels between the concepts taught in class and the computational methods used to solve these problems in the real world. Also, completing a computational project would allow us to analyze a system that is too complex to be analyzed analytically by hand, like what we have been doing mostly all semester.
more transfer functions yo
I would take out the coding examples and do a couple more complex problems in class.
Don't have a PhD student teach this course. He has neither the time to properly prepare material nor the understanding of material necessary to teach the course. More examples need to be given in class and tests go far beyond the homework problems. They are far too hard for the preparation we had been given. But again, DO NOT HAVE A PhD STUDENT TEACH THIS CLASS. I feel cheated. People are paying \$70,000 a year to have PhD students teach them and that is unacceptable.
-Less matlab in recitations -did not think going over homework in recitation was useful.
The midterm was an exact copy from the year prior and thus we knew the answers beforehand.
Shankar is not an effective professor. He is incredibly inexperienced and it shows in how he taught the course. He used the same midterm as last year which meant that everyone with access to a test bank like anyone in a fraternity did almost perfectly on the exam while the rest of us got Cs and Ds leading to an artificially high average of 88% when half the class was failing. Shankar did nothing to remedy his mistake or balance out the midterm because the class average was so high so he said he would just make the final extra hard to bring the average down. This only further hurts the few honest students in the class that are trying to succeed in the class by learning the material instead of mindlessly copying the answers down from last year's test. Shankar is also a terrible instructor so it is hard to learn the material for the class as the book is not helpful and he only covers parts of problems in class before he gets sidetracked by something else. I don't think he finished a single sample problem in class which made the homework and exams incredibly difficult as I had never seen how to do a full problem let alone a full problem that was significantly more complicated than anything he showed us in class or the homework. This makes the class brutally difficult purely because of Shankar's incompetence as a professor.
It was very difficult to learn from the lectures. I mostly just wrote down everything and did my best to understand it at home. As I was copying the notes from the white board, I usually didn't know what I was writing.
More practical problems
Honestly, more example problems and possibly more consistent office hours. The assignments were due and assigned on thursday of every week, with office hours and the recitation on Friday. I generally didn't have the time to start assignments until the weekend, so usually I just had to work it out if I was confused.
We learned how to do the problems, but many students still felt that they still didn't know WHY we were doing them. In other words, how the content from the class is applied in the field.
However, in-class examples coordination with students needs improvement as two can eat up the allotted class-time. The instructor needs to familiarize himself more with the course material, cut away waste where derivations fail to connect with the homework/test material, and rely on creating his/her own course material to teach the course. Posting examples with solutions on slides as samples might help students cope with questions that require detailed solutions that they might not be able to follow easily in class.
Working through problems in class with the professor is absolutely necessary for this course. We did a lot of practice problems in this class, and it was extremely helpful. This should continue.
<b>Question: You indicated that you were academically prepared to take this course, what prepared you for this class (which prior courses, which topics)?</b>
Linear algebra
I unclear

critical
calc
physics
Physics, Dynamics (abroad),
Differential Equations and Analytical Mechanics I & II
Linear algebra, engineering computations
physics, circuit theory
prior courses
I took linear algebra.
calc
Diffeq, physics, dynamics
Linear algebra
Differential Equations, Dynamics, Calc 3
differential equations, calculus
Dynamics and linear algebra
Completer all prerequisites
differential equations
Calculus
Differential equations
APSC 2113 MATH 1231, 1232, 2233 I think MATH 2184 (linear algebra) should be a prerequisite for this and other engineering classes APSC 2057 APSC 2058 MAE 2117
Calc 1 Calc 2 Physics 1
Dynamics
<b>Question: You indicated that you were not academically prepared to take this course, please comment on issues with prerequisite courses, or what could have been done differently so that a future student like yourself would be better prepared to take this course?</b>
better understanding of matrices, and fundamental knowledge of electrical circuits
The prereqs for this class were changed to a coreq which was not ideal. Changing this so that the robotics schedule does not do this could help.
I missed clicked

### Commonly Occurring Words and Phrases from Your Students' Comments

algebra (6)	calculation (7)	class(41)	differed (6)	equation (6)	exam(14)	helpful (7)	linear (6)	material(22)	not(10)	problematic(18)
professor(9)	recitations (7)	semester (6)	student(9)	teaching(10)						