#### CS 4102-001 Algorithms - Spring 2014

ENGR (17532)

INSTRUCTORS: Floryan, Mark (mrf8t) Respondents: 53 / Enrollment: 125

#### Summary: CS 4102-001 Algorithms - Spring 2014 (17532)

#### **Overall Course Rating**

CS-4102-001 Mean 4.18 CS-4102-001 Std Dev 0.94 CS-4102-001 Response Count 264

SEAS, 4000-level courses Mean 4.19 SEAS, 4000-level courses Std Dev 0.89 SEAS, 4000-level courses Response Count 9293

#### **Overall Instructor Rating**

INSTRUCTOR: Floryan, Mark Mean 4.43 Std Dev 0.72 Response Count 370

SEAS, 4000-level courses Mean 4.38 SEAS, 4000-level courses Std Dev 0.80 SEAS, 4000-level courses Response Count 13773

#### ~ QUESTIONS AND DETAILS ~

# 1. The course addressed technically rigorous subject matter consistent with the course objectives.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

~ ANSWER MATRIC	CES ~
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Results for	CS-4102-0	01						
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
53	4.72	0.45	38 (71.70%)	15 (28.30%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for	Results for SEAS, 4000-level courses											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)				
1860	4.40	0.72	934 (50.22%)	769 (41.34%)	89 (4.78%)	33 (1.77%)	12 (0.65%)	23 (1.24%)				

# 2. The instructor used methods other than/in addition to traditional lectures (for example, active learning, in-class problems, collaborative learning, inclass discussion) effectively in this course.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	CS-4102-0	01, Floryan	, Mark					
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
53	4.18	0.87	21 (39.62%)	21 (39.62%)	6 (11.32%)	3 (5.66%)	0 (0.00%)	2 (3.77%)

Results for	SEAS, 400	0-level cou	rses					
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
1974	4.29	0.86	924 (46.81%)	731 (37.03%)	161 (8.16%)	63 (3.19%)	26 (1.32%)	69 (3.50%)

## 3. There was a reasonable level of effort expected for the credit hours received.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	Results for CS-4102-001												
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)					
53	4.23	0.85	23 (43.40%)	22 (41.51%)	5 (9.43%)	3 (5.66%)	0 (0.00%)	0 (0.00%)					

Results for	Results for SEAS, 4000-level courses										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)			
1860	4.30	0.84	875 (47.04%)	779 (41.88%)	111 (5.97%)	63 (3.39%)	26 (1.40%)	6 (0.32%)			

Not Applicable (NA)

(0.00%)

Not Applicable (NA)

179 (9.62%)

Not Applicable (NA) 2 (3.85%)

Not Applicable (NA) 720 (38.83%)

Not Applicable (NA)

0 (0.00%)

Not Applicable (NA)

62 (3.16%)

Not Applicable (NA)

0 (0.00%)

Not Applicable (NA)

26 (1.32%)

~ QUESTIONS AND DETAILS ~				~ ANS	WER MATR	ICES ~			
4. The homework assignments helped	Results for	r CS-4102-0	001						
me learn the subject matter.  Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
contributed by Dean of the School of Engineering and Applied Science	53	4.58	0.63	34 (64.15%)	17 (32.08%)	1 (1.89%)	1 (1.89%)	0 (0.00%)	
	Results for	r SEAS, 400	00-level cou	rses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Ī
	1860	4.20	0.89	724 (38.92%)	680 (36.56%)	191 (10.27%)	56 (3.01%)	30 (1.61%)	
5. The textbook increased my	Results for	r CS-4102-0	001						
understanding of the material.  Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
contributed by Dean of the School of Engineering and Applied Science	52	3.22	1.06	5 (9.62%)	15 (28.85%)	20 (38.46%)	6 (11.54%)	4 (7.69%)	
	Results for	r SEAS, 400	00-level cou	rses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
	1854	3.80	1.07	346 (18.66%)	387 (20.87%)	258 (13.92%)	109 (5.88%)	34 (1.83%)	
6. The course material was well	Results for	r CS-4102-0	001. Florvan	. Mark					_
organized and developed.  Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
contributed by Dean of the School of Engineering and Applied Science	53	4.45	0.67	28 (52.83%)	22 (41.51%)	2 (3.77%)	1 (1.89%)	0 (0.00%)	
	Results for	r SEAS, 400	00-level cou	rses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Ī
	1959	4.22	0.88	823 (42.01%)	803 (40.99%)	165 (8.42%)	75 (3.83%)	31 (1.58%)	
7. The instructor was knowledgeable	Results for	r CS-4102-0	001, Floryan	, Mark					
about the subject matter.  Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
contributed by Dean of the School of Engineering and Applied Science	53	4.72	0.45	38 (71.70%)	15 (28.30%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	
	Results for	r SEAS, 400	00-level cou	rses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
	1966	4.65	0.58	1344 (68.36%)	536 (27.26%)	44 (2.24%)	10 (0.51%)	6 (0.31%)	
3. The instructor was well prepared for	Results for	r CS-4102-0	001, Florvan	, Mark					
class. Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
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contributed by Dean of the School of Engineering and Applied Science

Results for	CS-4102-0	01, Floryan	, Mark					
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
53	4.64	0.52	35 (66.04%)	17	1 (1.89%)	0 (0.00%)	0	0

Results for	Results for SEAS, 4000-level courses										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)			
1967	4.48	0.72	1111 (56.48%)	654 (33.25%)	105 (5.34%)	22 (1.12%)	13 (0.66%)	62 (3.15%)			

#### ~ QUESTIONS AND DETAILS ~

#### ~ ANSWER MATRICES ~

#### 9. I received adequate preparation from the prior courses in the curriculum to be successful in this course.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	Results for CS-4102-001											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)				
53	4.09	0.86	17 (32.08%)	28 (52.83%)	5 (9.43%)	2 (3.77%)	1 (1.89%)	0 (0.00%)				

Results for	Results for SEAS, 4000-level courses											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)				
1859	4.12	0.89	681 (36.63%)	803 (43.20%)	222 (11.94%)	85 (4.57%)	26 (1.40%)	42 (2.26%)				

#### 10. The grading policy was fair.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4102-001, Floryan, Mark								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
53	4.04	0.98	20 (37.74%)	20 (37.74%)	9 (16.98%)	3 (5.66%)	1 (1.89%)	0 (0.00%)

Results for	Results for SEAS, 4000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
1969	4.24	0.87	879 (44.64%)	744 (37.79%)	208 (10.56%)	72 (3.66%)	22 (1.12%)	44 (2.23%)	

## 11. The instructor responded adequately to in-class questions.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	Results for CS-4102-001, Floryan, Mark								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
53	4.58	0.53	32 (60.38%)	20 (37.74%)	1 (1.89%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	

Results for	Results for SEAS, 4000-level courses								
Total	Mean	Std Dev	Strongly Agree Agree (4)		Neutral Dis	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
1973	4.48	0.70	1092 (55.35%)	715 (36.24%)	86 (4.36%)	20 (1.01%)	14 (0.71%)	46 (2.33%)	

# 12. The instructor effectively used technology in support of the learning goals for this course.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	Results for CS-4102-001, Floryan, Mark								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
52	4.41	0.61	24 (46.15%)	24 (46.15%)	3 (5.77%)	0 (0.00%)	0 (0.00%)	1 (1.92%)	

Results for	Results for SEAS, 4000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
1965	4.28	0.82	851 (43.31%)	779 (39.64%)	169 (8.60%)	54 (2.75%)	18 (0.92%)	94 (4.78%)	

# 13. The average number of hours per week I spent outside of class preparing for this course was:

Question Type: Multiple Choice

contributed by Office of the Provost

Results for CS-4	Results for CS-4102-001								
Total	Less than 1	1 - 3	4 - 6	7 - 9	10 or more				
	(NA)	(NA)	(NA)	(NA)	(NA)				
53	1	7	23	16	6				
	(1.89%)	(13.21%)	(43.40%)	(30.19%)	(11.32%)				

Results for SEA	Results for SEAS, 4000-level courses								
Total	Less than 1	1 - 3	4 - 6	7 - 9	10 or more				
	(NA)	(NA)	(NA)	(NA)	(NA)				
1862	61	569	776	281	175				
	(3.28%)	(30.56%)	(41.68%)	(15.09%)	(9.40%)				

~ QUESTIONS AND DETAILS ~				~ ANSWER	MATRICES ~			
14. I learned a great deal in this course.	Results for	CS-4102-001						
Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
contributed by Office of the Provost	53	4.49	0.61	29 (54.72%)	21 (39.62%)	3 (5.66%)	0 (0.00%)	0 (0.00%)
	Results for	SEAS. 4000-	level courses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
	1849	4.29	0.85	888 (48.03%)	727 (39.32%)	146 (7.90%)	66 (3.57%)	22 (1.19%)
15. Overall, this was a worthwhile	Results for	CS-4102-001						
<b>course.</b> Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
contributed by Office of the Provost	53	4.40	0.72	27 (50.94%)	21 (39.62%)	4 (7.55%)	1 (1.89%)	0 (0.00%)
	Results for	SEAS, 4000-	level courses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
	1855	4.30	0.90	935 (50.40%)	684 (36.87%)	139 (7.49%)	58 (3.13%)	39 (2.10%)
6. The course's goals and requirements	Results for	CS-4102-001	, Floryan, Ma	rk				
were defined and adhered to by the instructor.	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Question Type: Likert  contributed by Office of the Provost	53	4.57	0.50	30 (56.60%)	23 (43.40%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
	Results for	SEAS, 4000-	level courses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
	1963	4.36	0.77	959 (48.85%)	828 (42.18%)	114 (5.81%)	44 (2.24%)	18 (0.92%)
17. The instructor was approachable	Results for	CS-4102-001	, Floryan, Ma	rk				
and made himself/herself available to students outside the classroom.	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Question Type: Likert  contributed by Office of the Provost	53	4.68	0.51	37 (69.81%)	15 (28.30%)	1 (1.89%)	(0.00%)	0 (0.00%)
	Results for	SEAS, 4000-	level courses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
	1964	4.45	0.78	1137 (57.89%)	643 (32.74%)	131 (6.67%)	33 (1.68%)	20 (1.02%)
18. Overall, the instructor was an	Results for	CS-4102-001	, Floryan, Ma	rk				
effective teacher. ~ Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
contributed by Office of the Provost	53	4.57	0.67	34 (64.15%)	16 (30.19%)	2 (3.77%)	1 (1.89%)	0 (0.00%)
	Results for	SEAS, 4000-	level courses					
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
	1969	4.41	0.79	1081 (54.90%)	700 (35.55%)	130 (6.60%)	36 (1.83%)	22 (1.12%)

~ QUESTIONS AND DETAILS ~	
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#### ~ ANSWER MATRICES ~

### 19. Please make any overall comments or observations about this course:

Question Type: Short Answer

Results for CS-4	Results for CS-4102-001							
Total	Individual Answers							
34	See below for Individual Results							

Professor Floryan was awesome! He knew the material really well and made himself available in office hours and after class to help students understand the material well. I appreciated the mix of programming and written assignments. We didn't just learn theoretical concepts, but we also learned how to apply what we were learning. Shorter tests or just a different format for the tests would be great though. As someone who needs to stare at a new problem for a little while in order for it to click, exams were really stressful. I did very well on the homework assignments because I could take my time to think through the problems.

Love you Floryan!! So cute and smart! Thank you for being such a great instructor and helping me through this course.

Loved professor Floryan. Thought the programming assignments were graded too harshly and unnecessarily, but that is more of a TA problem

Very difficult course

While some of the proofs during the lectures were well explained, some of the informal proofs toward the end were not or even closely convincing. I believe that if there are to be proofs on the powerpoint slides, one should make them complete and convincing or not put them there at all. Grading was a mess in this course. The degree of variability in the different TAs especially on proofs for homework and even on the exam was atrocious. A more standardized rubric for grading should be used.

I liked the subject material of the course since it was both useful and interesting. Prof. Floryan does a good job with his lectures using a combination of slides and writing on the whiteboard. His lectures are easy to follow and he answers questions well. I think the tests are on the difficult side and the written homeworks are very time consuming.

Great class. Difficult material, but Professor Floryan organized the material well and he was very clear about his expectations. I really appreciated the latter fact. Disorganized professors make their courses needlessly difficult, but Floryan always started class by updating us on syllabus changes, due dates, etc. It made life easier. There's one reason I'm especially glad that he's a good professor: I'm terrible at algorithms, so I'll probably have to take the class again. Not blaming anybody but myself though.

FLORYAN IS THE MAN. I almost never leave comments.. but this one was necessary.

The only advice I would give is to repeat the questions asked during class immediately after they're asked.

The material is less than exciting, but Floryan is an excellent professor!

Mark Floryan for President.

Floryan was one of my favorite and funniest professors I had at UVA. I feel like he understands the student's perspective more than other professors, probably because he was previously a student here. Overall, I thought this was a very useful course, but the one thing I would recommend would be to do away with the requirement that the written hws be done in LaTex. With all the formula formatting features available in Word, doing the hws in LaTex seemed outdated, was slightly annoying, and didn't add much value to the course and/or assignment. Otherwise, I enjoyed the semester. Thanks Floryan!

This class was tough, but Professor Floryan is a great.

Great class, difficult but fair, hopefully it gets graded fairly.

This class was very hard. The averages were so low for some reason. It was still a good class though.

The course would have been significantly better with 1. Recording/screencasting of lectures like my other CS classes 2. using the pen on the podium to draw on the screen like my instructor did for discrete math. This makes the material both easier to understand and more easily accessible. For instance, in CS 2150 the video lectures were so useful since you could always watch them whenever you had trouble. Good class but more curving is needed for the grades. The TAs had mixed results in terms of grading correctly and on time. Floryan is a good professor.

More time should have been devoted to explaining the transition from algorithm to code. Although algorithms were clearly stated in class for homework assignments, it was often difficult to directly implement them in a given language. By providing a few stepping stones to aid students along the way (especially for very tricky algorithms), this course would be easier to follow. In addition, more challenging subjects that were covered later in the semester should be allocated more time for clear discussion in order to prevent any confusion from arising.

Professor Floryan is Awesome

#### ~ OUESTIONS AND DETAILS ~

#### ~ ANSWER MATRICES ~

Professor Floryan is one of the best professors I've ever had. Very knowledgeable, cares a lot about his students, and makes himself very available. I learned a great deal in this course and I'm happy to have taken it.

Useful and helpful.

Algorithms was a very worthwhile course, and I learned a lot. Professor Floryan is very approachable, and the way he encouraged group discussion during his office hours made it easier to think through the problems with other students and come up with a solution, rather than having a one-on-one question and answer setting, which can be intimidating. The lectures were well-organized, but were occasionally a bit abstract and hard to understand. This could be improved upon if Prof. Floryan went through the examples and explanations more thoroughly--I would prefer sitting through a full 50 minutes of class and going through an example very thoroughly so that I could pinpoint what areas I did not understand rather than ending class early. I also think Professor Floryan could afford to be a bit more authoritative, especially when fielding questions from students about what would be on the exams and trolling on Piazza. Overall, Prof. Floryan was a knowledgeable instructor who was very good at guiding discussion in the right direction and providing clear explanations to questions. This made algorithms a challenging but enjoyable course, and I learned a lot!

the graduate tas weren't as reasonable and approachable as the instructor.

Verbal explanation in class was not helpful. Slides are not well-organized and confusing at best. A disappointing course.

Probably my favorite UVA professor. All around excellent professor/person. Highly approachable and engaging.

Grading on homeworks and tests was often fraught with error.

I didn't have many qualms with the course itself, though the grading policy was extremely unfair in terms of the homework. The homework was graded solely based on printing out correct answers. Despite making an honest attempt at the homework and implementing the algorithm - which sometimes took up to 13 hours a week - if there was something slightly off about it and the wrong answers came out, that would just mean a 0/10. That's 13 hours down the drain, and yes, in the real world, you don't get paid for code that doesn't work, but I came to college to learn, not to get punished for my first real attempt at something I just learned. If anything, a pity 0.5/10 well-at-least-you-tried is fair. Though I never procrastinated on the homework, it was still far more complicated than what I had expected for the course, and coupled with the grading policy and how much it's worth of our grade, it just wasn't my cup of tea. Prof. Floryan was a great guy to approach though. He's funny and got a great sense of humour. Nice sense of fashion, too. It's just that the homework.... and the TAs. When I went to office hours to ask for help, very few TAs actually helped. The most slap-in-the-face moments were when I'd spent all weekend trying to figure something out, and when I realized I needed a push in the right direction and I asked the TAs, I was offered "well, have you tried something different"???? Not only were most of the TAs awfully late most of the time, but they did not seem interested in their job at all, which made the course all the more harder as Floryan was much too busy most of the time in his office.

Don't cancel class so often, especially when we already lose time for snow days.

I did think that the in class activities were sorta dumb, sorry.

The class was very interesting but also very hard. Keeping up with the weekly assignments was a huge struggle but they were very helpful in learning the course material. I thought the programming assignments could have been replaced with more written assignments since I think it would have been more helpful to understand the proofs better. Other than that, Professor Floryan was great and taught the material very well.

Fantastic course

Mark Floryan is a great teacher. He was very understanding of important conflicts I had, which aided my learning experience. I look forward to taking future classes he teaches.

Prof. Floryan is the greatest!!!!!!!!

Mark Floryan can explain a complex algorithm in an easy-understanding way. This helps me a lot when I reviewed what I learnt from the class. Homework also helps me a lot to use the algorithm solving problems.

I really enjoyed the class. Professor Floryan did a really good job in his lectures; he made them quite fun and engaging. Definitely a worthwhile class.