CS 4102-001 Algorithms - Fall 2014

ENGR (18440)

INSTRUCTORS: Floryan, Mark (mrf8t) Respondents: 46 / Enrollment: 116

Summary: CS 4102-001 Algorithms - Fall 2014 (18440)

Overall Course Rating

CS-4102-001 Mean 4.19 CS-4102-001 Std Dev 0.98 CS-4102-001 Response Count 230

SEAS, 4000-level courses Mean 4.14 SEAS, 4000-level courses Std Dev 0.91 SEAS, 4000-level courses Response Count 9438 **Overall Instructor Rating**

INSTRUCTOR: Floryan, Mark Mean 4.40 Std Dev 0.75 Response Count 322

SEAS, 4000-level courses Mean 4.29 SEAS, 4000-level courses Std Dev 0.87 SEAS, 4000-level courses Response Count 14693

~ 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 MATRICES ~

Results for CS-4102-001										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
46	4.67	0.47	31 (67.39%)	15 (32.61%)	0 (0.00%)	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)	Not Applicable (NA)	
1887	4.33	0.77	869 (46.05%)	829 (43.93%)	113 (5.99%)	38 (2.01%)	19 (1.01%)	19 (1.01%)	

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-4102-001, Floryan, Mark										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
46	4.15	0.89	19 (41.30%)	18 (39.13%)	6 (13.04%)	3 (6.52%)	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)	Not Applicable (NA)		
2105	4.22	0.94	954 (45.32%)	744 (35.34%)	205 (9.74%)	90 (4.28%)	41 (1.95%)	71 (3.37%)		

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 CS-4102-001									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
46	4.11	1.08	22 (47.83%)	13 (28.26%)	6 (13.04%)	4 (8.70%)	1 (2.17%)	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)			
1889	4.28	0.82	841 (44.52%)	837 (44.31%)	119 (6.30%)	62 (3.28%)	24 (1.27%)	6 (0.32%)			

0

Not

Applicable

(NA)

0

(0.00%)

Not

Applicable

(NA)

186

(9.86%)

Not

Applicable

(NA)

(13.04%)

Not Applicable

(NA)

937

(49.52%)

Not

Applicable

(NA)

0

(0.00%)

Not

Applicable

(NA)

62

(2.96%)

Not

Applicable

(NA)

(0.00%)

Applicable (NA)

(1.38%)

Not Applicable

(NA)

0

(0.00%)

Not

Applicable

(NA)

52

(2.47%)

~ QUESTIONS AND DETAILS ~ ~ ANSWER MATRICES ~ 4. The homework assignments helped Results for CS-4102-001 me learn the subject matter. Std Dev Agree (4) Total Mean Strongly Neutral Disagree Strongly Agree (5) (2)Disagree (3)Question Type: Likert (1) 46 4.61 0.58 30 14 2 0 contributed by Dean of the School of Engineering (30.43%) (4.35%)(0.00%)(65.22%)(0.00%)and Applied Science Results for SEAS, 4000-level courses Disagree (2) Strongly Mean Std Dev Agree (4) Total Neutral Strongly Disagree (1) Agree (5) (3) 35 1886 0.93 680 706 202 77 4 13 (37.43%)(10.71%)(4.08%)(36.06%)(1.86%)5. The textbook increased my Results for CS-4102-001 understanding of the material. Agree (4) Total Mean Std Dev Strongly Neutral Disagree Strongly Agree (5) Disagree (1) (3) (2)Question Type: Likert 46 3.42 1.08 contributed by Dean of the School of Engineering (15.22%)(26.09%)(30.43%)(10.87%)(4.35%)and Applied Science Results for SEAS, 4000-level courses Strongly Agree (5) Agree (4) Disagree (2) Mean Std Dev Strongly Disagree Total Neutral (3)(1) 1892 269 48 3.66 1.10 249 311 78 (13.16%)(14.22%)(16.44%)(4.12%)(2.54%)6. The course material was well Results for CS-4102-001, Floryan, Mark organized and developed. Total Mean Std Dev Strongly Agree (4) Neutral Disagree (2) Strongly Disagree (1) Agree (5) (3) Question Type: Likert 4.37 0 (0.00%) 46 0.68 21 22 contributed by Dean of the School of Engineering (45.65%) (47.83%) (4.35%)(2.17%)and Applied Science Results for SEAS, 4000-level courses Agree (4) Std Dev Total Mean Strongly Neutral Disagree Strongly Agree (5) (3) Disagree (1) 2092 4.08 0.98 787 840 241 106 56 (37.62%)(40.15%)(11.52%)(5.07%)(2.68%)7. The instructor was knowledgeable Results for CS-4102-001, Floryan, Mark about the subject matter. Std Dev Strongly Disagree (2) Mean Neutral Total Agree (4) Strongly Disagree (1) Agree (5) (3) Question Type: Likert 46 4 72 0.46 n n contributed by Dean of the School of Engineering 33 13 (28.26%) (0.00%)(0.00%) (71.74%)(0.00%)and Applied Science Results for SEAS, 4000-level courses Disagree (2) Agree (4) Total Mean Std Dev Strongly Neutral Strongly Agree (5) Disagree (1) (3) 2098 4.58 0.67 1350 617 69 (0.76%)(0.81%)(64.35%)(29.41%)(3.29%)8. The instructor was well prepared for Results for CS-4102-001, Floryan, Mark class. Agree (4) Total Mean Std Dev Strongly Neutral Disagree Strongly Agree (3) (2)Disagree Question Type: Likert (5) (1)46 4.61 0.49 28 18 0 0 0 contributed by Dean of the School of Engineering (60.87%)(39.13%)(0.00%)(0.00%)(0.00%)and Applied Science

Std Dev

0.82

Strongly

Agree (5)

1061

(50.43%)

Agree (4)

774

(36.79%)

Neutral

(3)

143

(6.80%)

Disagree

(2)

(2.09%)

Strongly

Disagree (1)

30

(1.43%)

Results for SEAS, 4000-level courses

Mean

4.36

Total

2104

~ 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 CS-4102-001									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
46	4.02	1.02	19 (41.30%)	14 (30.43%)	8 (17.39%)	5 (10.87%)	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)	Not Applicable (NA)	
1884	4.07	0.92	677 (35.93%)	776 (41.19%)	261 (13.85%)	99 (5.25%)	27 (1.43%)	44 (2.34%)	

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)		
46	4.00	1.00	16 (34.78%)	18 (39.13%)	7 (15.22%)	3 (6.52%)	1 (2.17%)	1 (2.17%)		

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)
	2098	4.16	0.90	840 (40.04%)	797 (37.99%)	276 (13.16%)	76 (3.62%)	29 (1.38%)	80 (3.81%)

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 CS-4102-001, Floryan, Mark											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)			
46	4.65	0.53	31 (67.39%)	14 (30.43%)	1 (2.17%)	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)			
2097	4.39	0.77	1067 (50.88%)	801 (38.20%)	138 (6.58%)	36 (1.72%)	20 (0.95%)	35 (1.67%)			

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 CS-4102-001, Floryan, Mark								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
46	4.30	0.79	20 (43.48%)	22 (47.83%)	3 (6.52%)	0 (0.00%)	1 (2.17%)	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)	
2099	4.22	0.87	869 (41.40%)	832 (39.64%)	204 (9.72%)	60 (2.86%)	32 (1.52%)	102 (4.86%)	

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-4102-001							
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)		
46	0 (0.00%)	5 (10.87%)	17 (36.96%)	20 (43.48%)	4 (8.70%)		

Results for SEAS, 4000-level courses						
Total	Less than 1	1 - 3	4 - 6	7 - 9	10 or more	
	(NA)	(NA)	(NA)	(NA)	(NA)	
1892	77	616	855	247	97	
	(4.07%)	(32.56%)	(45.19%)	(13.05%)	(5.13%)	

~ 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	46	4.67	0.47	31 (67.39%)	15 (32.61%)	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)
	1880	4.19	0.93	830 (44.15%)	738 (39.26%)	201 (10.69%)	66 (3.51%)	45 (2.39%)
15. Overall, this was a worthwhile	Results for	CS-4102-001						
course. 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	44	4.57	0.70	29 (65.91%)	12 (27.27%)	2 (4.55%)	1 (2.27%)	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)
	1885	4.23	0.94	883 (46.84%)	712 (37.77%)	174 (9.23%)	66 (3.50%)	50 (2.65%)
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	45	4.62	0.53	29 (64.44%)	15 (33.33%)	1 (2.22%)	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)
	2086	4.28	0.82	937 (44.92%)	909 (43.58%)	155 (7.43%)	57 (2.73%)	28 (1.34%)
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	46	4.67	0.52	32 (69.57%)	13 (28.26%)	1 (2.17%)	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)
	2095	4.33	0.84	1077 (51.41%)	746 (35.61%)	192 (9.16%)	56 (2.67%)	24 (1.15%)
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	46	4.52	0.66	27 (58.70%)	17 (36.96%)	1 (2.17%)	1 (2.17%)	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)
	2100	4.28	0.92	1041 (49.57%)	770 (36.67%)	170 (8.10%)	71 (3.38%)	48 (2.29%)

~				
lease	make	anv	overall	comment

~ ANSWER MATRICES ~

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

~ OUESTIONS AND DETAILS ~

Question Type: Short Answer

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

This was very difficult material for me, and I thought CS3102 didn't prepare me well for this course (not CS4102's fault though). However, Professor Floryan was extremely helpful in office hours and his lecturing style definitely helped me understand the material well enough

This course was very helpful. It introduced a lot of problems that I would not have otherwise explored. I feel like the subject matter has made me a better programmer.

We got let out of class early pretty often, which was nice. But, I think one thing we could have used the in-class time for was maybe solving practice algorithms problems for each unit in class. Maybe work with our classmates / individual, but then come back together as a class to discuss. It would've helped us learn more about how to solve algorithms problems. Office hours were super great and helpful for learning how to do the homework problem!

Great course, Floryan was extremely helpful and accommodating.

Extremely great professor. One of my more favorite classes of the semester

This was a very useful course.

I know there is really no helping this, but it is just kind of upsetting that I know I would have gotten a better grade in this course if I took it last semester. My friends who took it last semester did not even try after the first test, allowing themselves to spend less time on homework and accept failing grades, knowing that their only option was to get a good grade on the final, which they did. This is unfortunate mainly because I feel like I have put a lot of work into this course, and will receive a lower grade than those last semester who slacked off all semester and got lucky with how easy the final was. I hope that you take this into account when making the curve, hopefully you will make our grade distribution similar to the distribution last semester. I know this doesnt mean much, but it just makes me feel sad and I'm just using this comment space to vent. Enjoy the holidays!

Homeworks were definitely hard, especially the written ones. It would be helpful if the TAs had more guidance to give us when we're stuck.

I enjoyed the class, Floyan is one of the best professors I've had at UVA, or maybe I just find the course material more interesting, either way I had a good experience with the class. wish software development wasn't the same time as AI next semester:

Floryan is the man!

Nothing really bad to say honestly. Floryan is a very good teacher, a lot better than the majority of teachers who have been here longer than him. Being very nice, a funny guy, and really approachable made him a likable guy. The grading was pretty reasonable. Also, he was by far the best teacher I've had in terms of helping students outside of class - he put up with all of us in office hours for as long as it took, and was very helpful at them. I usually like to give some constructive criticism to teachers. I don't know if it's that I'm burnt from finals and don't want to think deeply, or if there just isn't anything bad to say, but I can't think of anything bad to say.

I know you were restricted with how many TAs you're allowed to have, but given the difficulty of this subject, I would have liked more office hours so I could get the help I needed with the assignments. Also, it would be nice to hold exam review sessions with TAs or the Professor after hours instead of trying to cram it in to the 75 min lecture meetings before the exam. I did not care much for the written homeworks (even though I know they're crucial for the class). I did prefer the programming homeworks and actually enjoyed doing them.

This class was difficult but well worth it.

One of the only CS courses whose material I feel I could not have taught myself on my own in a few weeks. Very worthwhile, would like to see more like this.

The TAs were not great. I had to get several regrades.

Floryan was a good lecturer and his office hours were awesome. Written homeworks were tough and honestly, I don't know if the average student would have been able to finish them without going to office hours (I know I would be totally lost without them). This is especially true for some of the questions like visible lines and tiling. But I have to admit they were super helpful...maybe give more guidance to the questions in class next time though. Programming homeworks were fine.

great class. great professor

This is a brutal course, but Floryan finds a way to make it tolerable. CS3102 should be a definite prerequisite to this class because CS2102 is not enough preparation.

Homeworks were extremely difficult, but overall this was a worthwhile course.

Good topic, very good professor, hard class. No complaints from me except if my GPA sinks low enough not to get a good job in the future. I'll let you guys know.

~ OUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

Mark Floryan is a gift to all students. Give him a raise, make him department head, don't let him leave. Hands down best and most understanding professor ever. Incredibly smart, helpful, and actually cares for his students.

Your examples suck at teaching the algoritms, your 10 pt homeworks encourage TAs to under-grade them even though they are half the course grade and the textbook is an incomprehensible pile of shit

Hard course, but good professor.

N/A

Professor Flory an was an experience. He was genuinely passionate about the subject he was teaching and hE was always trying to connect with the students in the classroom instead of just talking on and on by himself. He is one of the smartest and coolest professor! I have ever seen (also demonstrated by his quick wits that always entertained the class) and also the professor I'd hang out with outside of class - which is rare. However, it would'be been better if the lecture slides were more clearly written (they had many errors and typos), and if Professor Floryan slowed down a lot when explaining dense concepts like 3SAT problems. Sometimes it felt like he tuned his lecture speed to the brightest top 10% of the class who gets everything he says automatically while the rest of the class needs explicit pointing out of how each logical step leads to the next step and reiteration (sometimes I felt so lost that I didn't know where to begin asking questions). Also, it would be very helpful if Professor Floryan explicitly wrote out what each variable he decided to use in his proof means, while he's doing proofs on the white board. He made himself very approachable outside of the class and was very helpful - never giving away the answer but giVing helpful guides for us to arrive to the answers ourselves. This course was one of the most intellectually challenging yet very rerewarding courses that I have ever taken, that I am taking away a lot from. Thanks PProfessor Floryan!

One of, if not the, best teachers I've had at UVa. Extremely approachable which exponentially helped my understanding when I realized I needed help. (One of the first courses that I went to office hours in and I can see it made a big difference)

There was lots of memorization. I think it would have been better if other skills were emphasized. But at least that helps prepare us for interviews and that sort of thing.

I really feel like this was my first true college level course. Extremely tough material, homeworks took a lot of time and thinking. Prof. Floryan does an excellent job of explaining everything. I wish that lectures could be available to re-watch online for studying purposes.

For the most part, Professor Floryan did a very good job teaching the material with well-prepared slides and good explanations. The pace of the course looking back seems a little slow at the beginning, but that's likely due to a growth of understanding and a necessary tune-up time towards learning algorithms. Piazza is a great tool and helped for a lot of the questions/holes in powerpoints. My biggest criticism of the course, though, is the design of the homeworks. First, although spaced well, the time-sink of any written homework is obscene--they were just too hard without any guidance. Most people relied upon office hours or latched upon a particular person, and I don't think that's a good way to learn--should the assignments be dependent on if you can make it to a particular timeslot to get hints/hear the answers? It's no wonder some people resorted to cheating--the alternative is to allot disproportionate number of hours to the course trying to develop a solution which may or may not be right. Desperation is not something which teaches well, and I think it is very, very easy for students to feel this way. Something like a hints release for baseline credit could alleviate the homework issue, if they were to be kept at the same difficulty, but I believe there are still too many people who coasted through this course hopeless.

I'm a 2nd year and found this to be pretty tough. I think I would've been better off waiting to take this until later when I was more mature of a student. Maybe make Theory of Comp or Comp Arch a prerequisite also. Learned a lot though and overall an interesting and practical course

It would have benefited me a lot if we had another written homework on NP/NPC. Since we didn't have this, it was very good that it was on the final, because that is the only reason I learned it. I actually enjoyed these topics very much and would have like to work with them more. I would have like to receive my course grade before completing this evaluation so I could comment on how fair the grading policy is/was and if I got the grade I think I deserve. This is unfortunate. This class was very much proof-based. The first topic we discussed in class was Greedy Algorithms. While these are easy algorithms to understand and create, the proofs are not logically easy to understand. They are often self-referential and because of that, seem completely arbitrary--like we're trying to formalize something we all know is inherently true (especially since you often proved by way of contradiction). When studying for the final, the proofs still seemed like this, but slightly less so. This section would be better taught with direct proofs or instead taught at a later time in the class. Because of the self-referential, B.S.-y nature of the proofs, it made me discredit Prof. Floryan as a teacher at first, and made me tune out of all his proofs for the first month or two. I often found the lectures very hard to pay attention to. You presented material well, but it was monotonous to have you teach from slides for extended periods (though the slides were very good and a good review tool). Similarly, some proofs on the board took waaayyy too much time (perhaps because questions/clarifications were occasionally raised). A good rule of thumb would be this: if a proof is taking over 30 minutes, then you need to make it shorter or interrupt it somehow. Although I've never had him as a teacher, I've heard Prof. Weimer likes to ask random questions every XX minutes that are totally off topic. I think this may be a good idea. The homeworks were amazing though. This is the main way I learned material, and it was extremely fun to solve thes

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Hard class, but learned a ton. I wasn't a huge fan of the lecture set up (PPT slides). It was nice having those to refer to on Collab, but difficult to pay attention to. Easy to get lost. Maybe do something that involves more active participation on the student's part. I found it most helpful when I stopped trying to write down slide info and listed to Floryan instead, who is a G. Homeworks were brutal, but that's expected. A lot of my homeworks had points taken off, but no feedback was given on Collab. That's frustrating. Some had feedback, but others didn't.