

CS 2150-002 Program & Data Representation - Fall 2016

ENGR (19417)

INSTRUCTORS: Bloomfield, Aaron S. (asb2t)

Respondents: 106 / Enrollment: 134

Summary: CS 2150-002 Program & Data Representation - Fall 2016 (19417)	
Overall Course Rating CS-2150-002 Mean 4.02 CS-2150-002 Std Dev 1.26 CS-2150-002 Response Count 529 SEAS, 2000-level courses Mean 4.04 SEAS, 2000-level courses Std Dev 1.01 SEAS, 2000-level courses Response Count 16316	Overall Instructor Rating INSTRUCTOR: Bloomfield, Aaron S. Mean 4.53 Std Dev 0.78 Response Count 740 SEAS, 2000-level courses Mean 4.26 SEAS, 2000-level courses Std Dev 0.88 SEAS, 2000-level courses Response Count 23269

~ QUESTIONS AND DETAILS ~ ~ ANSWER MATRICES ~

<p>1. Please list any comments (pro or con) about the teaching assistants here. These results will be passed onto the TAs so that they also have some feedback from the course evaluations.</p> <p style="text-align: center;">~ Question Type: Short Answer ~ <i>contributed by Bloomfield, Aaron S. (asb2t)</i></p>	Results for CS-2150-002, Bloomfield, Aaron S.	
	Total	Individual Answers
	90	See below for Individual Results
(answers to this question redacted since they are not about the primary instructor)		

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

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~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

(answers to this question redacted since they are not about the primary instructor)

2. How many credits should this course be worth? Please add your comments here.

~
Question Type: Short Answer

~
contributed by Bloomfield, Aaron S. (asb2t)

Results for CS-2150-002, Bloomfield, Aaron S.	
Total	Individual Answers
102	See below for Individual Results

- 4. We meet 3 times a week for lecture and then once for lab for 4 days a week. 4 credits.
- 4 - Lab merits an additional credit in and of itself
- 4. This class is very time consuming.
- This course should be 4 credits in my opinion. The labs take up a lot of time.
- 4? I feel like that would be valid considering there is a lab component and I spent 1239023489328 hours on this class each week.
- 4
- I think 3 is appropriate.
- 4. This class was more work than my other three classes combined this semester, which were a math class (3351), a physics class (3110), and another CS class (3102).
- 4. This class took up a ridiculous amount of time for a three credit class.
- 3 credits.
- 3 credits are fine to me.
- At least 4. Maybe even 5.
- 4. At least.

4 but I really really want to say 5 haha. I spend 2 courses worth of time on this course.

4, its definitely 4 credit work

4. This class is time consuming.

At least 4, this course is a lot of work and definitely worth 4 points.

This class should be worth six credits. The labs are really time-consuming.

more than 3 hahahahahahaha. Seriously consider changing it to 4.

5 credits

3 for the course, 1 for the lab. This is because we have to do lab reports. The actual "homework" part of lab is more akin to just 3 homework assignments in a week, which is doable.

6 - SO MUCH WORK!!!!!! There's 3 lectures, a pre-lab, in-lab, and post lab!!!!

4 credits AT LEAST.

4 (3 lecture + 1 lab)

At least 4

However much it is currently worth

It should be worth 4 credits due to how much work is put in outside of class and the lab component.

5 I'm taking 12 credits this semester, including a graduate math class, and 2150 still takes more time than all of my other classes combined.

I feel like it should be worth 6 credits. If that's not possible, at least 4. It just took up so much of my time that it made it harder to succeed in other classes.

at least 4 i had a calculus 1 class first year that was easy to get an A in and it was 4 credits... spent max 4 hours a week on it. this class.. 3 credits, spent 10 hours a week on

There's an argument to be made for 4, due to the sheer volume of work that must be done for the labs, but I by no means feel cheated out of a credit.

Definitely more than three- though I won't be excessive and say ten or anything. I think four would be fair, as I definitely spent more time on this class than any of my four-credit APMA classes so far. The nature of the labs (pre-lab, in-lab, and post-lab every single week) means that a lot of time is dedicated to this class, and coding inherently takes a while if you run into bugs. Not to mention having to go to office hours if you can't fix the bugs yourself.

4 The amount of weekly work is definitely higher than a standard 3 credit.

At least 4 credits, 3 credits seem way too little for this class.

Probably 4 rather than 3.

4 to 5. This class takes up a lot of time even for the smartest of programmers

At least 4!

at least 4. Might have spent more time on this class than my other 4 combined.

5

4 seems reasonable

4

4

4

4

4

4

4

4

4

4

4

4

4

4 at least. Most time spent outside of any class

4 (takes a lot of time every week and is a difficult class)

Over nine thousand. Seriously. But AT THE VERY LEAST, 4. Why this class is worth only 3 credits and not 4 is beyond my comprehension, but seriously, the amount of time students put into this class far exceeds its contribution to overall GPA. Bloomfield has been teaching it like this for a decade now, and I'm sure this is a popular opinion, so it should have been done by now. The CS department needs to get on top of their stuff (*cough* waitlists *cough*).

8

I think 4 credits would be more fair. It seems to teeter between 3 and 4 since the labs were very easy in the first half of the semester and got significantly longer and more time consuming in the latter half. That being said, I could spend many hours on the assignments, making it feel at least like a 4 credit class.

I personally don't see a problem with it being a 3 credit course, but I can understand the demand for it to be 4 credits due to the weekly hours spent on the class.

I think it should be 4. It felt like the work load of 2 or 3 classes but I don't think it's reasonable to say it should be worth more than 4 because it's just a difficult and important class. That being said, I think you're pretty much screwed if you don't go to lecture, labs are mandatory (an extra 1.5 hours already), and there's a ton of work. Somehow I doubt I'm the only one complaining about this.

It should be 4 credits course, since lots of works are involved and hours of work required outside class.

Realistically, 4.

I think this course should be worth 4 credits because of the time commitment for labs.

5-6

4, I feel that lecture should be 3 credits and lab should be 1. I spent at least 12 hours a week on this class, spending every Sunday, Monday, Wednesday and some Thursday nights in office hours, along with going to the professors' office hours during the week on Monday and Wednesday.

4, since it also includes a lab I think there should be an extra credit

15

It should be worth 4 credits because we have 3 50 minutes lectures and a lab a week.

4, the labs require so much time to complete. I have spent more time working on assignments for this class than I have any other class before, including several 4 credit classes.

Probably 4+ for the amount of time I spent on some of the work. But I really enjoyed the class so I don't really mind spending time on it.

4. This class easily took up more time than 3 of my other classes combined.

4. Given the rule of thumb that one credit hour corresponds to 3 hours of work outside class, and the fact that I easily spent 4 hours average per prelab, inlab and postlab, not to mention studying for tests, it seems safe to say that 3 credits undersells the actual workload of the course.

Definitely more than 3 for the amount of work required.

At least 4. I've spent more time on this class than I have for other 4 credit classes I've taken, such as calculus 3.

4: 3 for lecture, 1 for lab

This class should easily be worth 4 credits. The amount of work, while very applicable, is insane for a 3 credit class.

4, just due to the sheer amount of time required to complete the labs each week. However, it might be better that it's only 3 so that people's GPAs do not drop too much after taking this class.

4+. I did more work in this class than the other three classes and lab I'm taking this semester (no exaggeration). I definitely think this class should be more than 3 credits.

4- one for the lab, three for the lecture.

6, I do twice (probably even more) the work in here than in other 3 credit classes.

I think it's 5 credits of work. I understand that making this class 5 credits unreasonable, but it should at least be 4 credits. Given there are three different assignments each week, some of which are multi-part and all three of which have the potential to take many hours, I think it's a little ridiculous that this class is only 3 credits, especially since it meets 4 times (including lab) a week.

I believe the workload with this course demands a 3 credit lecture and a 1 credit lab (ironic considering most of the coursework are the labs, but nevertheless...). Some may argue that increasing the weight of such a difficult course would only further penalize students who fail to do well in the course. However, if you perform adequately in the course (which should be the goal of any student), then increasing the credit hours with the course would add value to the amount of work invested in the course (especially over other courses on a student's schedule).

This class should be worth at least 4 credits because the average student spends at least 10 hours working on assignments for this class and attending lectures each week.

I believe this course should be worth 4 - 5 credits. There are three lectures along with a 2 hour lab. This can be translated as nearly 5 hours of "instruction-time" or "class-time." Outside of class, we have the prelab and the postlab... which can take up to 10 hours each in some classes. If we assume 4 hours of "class-time" and 12 hours of "outside-time," (these are very conservative estimates!!!).. be would satisfy the requirements for 4 credit. Honestly, one could easily argue for 5 credits as well... so I think 4.5 credits is a fair number.

Certainly 4, not even a question. Lectures 3 times a week and a lab qualifies it for 4 alone, not including the hours upon hours of work. Realistically it should actually be 5 if the university allows it.

4, the labs take a lot of time and it is quite a difficult class

4 credits; the lecture meets three hours per week and the lab also takes significant time. In addition, the amount of outside time required for this class is tremendous.

I would say 4 credits, it requires an abnormally high amount of time outside of lecture and lab

I think it should definitely be worth 4 rather than the 3 it is worth right now. Not only is it ~15 hours a week, we also have three hours of lecture plus an hour and a half of lab.

This class should definitely be worth 4 credits. It is akin to many of the APMA classes in that there are three lectures per week + a lab/discussion. Additionally they have far more homework than APMA classes and there are many weeks in which I have spent over 10 hours working on the three lab parts.

7, realistically 5

More than 3! I don't really understand why some courses are worth more than 3 if this course is not. More hours are probably spent in this class on a weekly basis than most others. Definitely should be worth more credits, I would say 4. Should not be 3.

Uhhh definitely more than 3. Atleast minimum of 4. 5 if you want

At least 4. I spent more time on this class than on all my other classes combined. We have class 4 times a week and I go to office hours at least twice a week.

4.5 credits

4 - definitely not 3

This course all(including the lab) should be 4 credits.

4. There are 3 credit hours of lecture with an additional required lab, with well over 10+ hours of homework every week. I have taken 4 credit classes that required significantly less work than this.

This course should be 4 credits. Classes with a lecture (3 times a week) and a lab that involves work outside the lab is worth 4 credits (like chemistry, biology, or physics). The lab for this class requires a lot of time since it can be started on Sunday and require work to be done on every day except most of Friday and Saturday. The lecture, though, does not have outside work associated with it so the 4 credit total still applies.

4 because the homework for the labs was extremely time consuming in some cases for a 3 credit class.

4.0 takes a lot of time

4, a good amount of time especially with the lab.

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

3. What is your major (and whether you are declared or not)?

Question Type: Multiple Choice

contributed by Bloomfield, Aaron S. (asb2t)

Results for CS-2150-002, Bloomfield, Aaron S.									
Total	BS CS (declared) (NA)	BA CS (declared) (NA)	BS CpE (declared) (NA)	Undeclared, but aiming for BS CS (NA)	Undeclared, but aiming for BA CS (NOT deferred) (NA)	Undeclared, but aiming for BS CpE (NA)	Deferred from the BA CS (NA)	A SEAS major that is not listed above (NA)	A major outside the SEAS school not listed above (NA)
106	57 (53.77%)	37 (34.91%)	4 (3.77%)	2 (1.89%)	1 (0.94%)	0 (0.00%)	0 (0.00%)	4 (3.77%)	1 (0.94%)

Results for SEAS, 2000-level courses									
Total	BS CS (declared) (NA)	BA CS (declared) (NA)	BS CpE (declared) (NA)	Undeclared, but aiming for BS CS (NA)	Undeclared, but aiming for BA CS (NOT deferred) (NA)	Undeclared, but aiming for BS CpE (NA)	Deferred from the BA CS (NA)	A SEAS major that is not listed above (NA)	A major outside the SEAS school not listed above (NA)
106	57 (53.77%)	37 (34.91%)	4 (3.77%)	2 (1.89%)	1 (0.94%)	0 (0.00%)	0 (0.00%)	4 (3.77%)	1 (0.94%)

4. 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

Results for CS-2150-002								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	4.80	0.40	85 (80.19%)	21 (19.81%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3263	4.38	0.72	1578 (48.36%)	1403 (43.00%)	185 (5.67%)	56 (1.72%)	19 (0.58%)	22 (0.67%)

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

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
105	4.10	1.00	44 (41.90%)	39 (37.14%)	14 (13.33%)	5 (4.76%)	3 (2.86%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3328	4.08	1.03	1337 (40.17%)	1229 (36.93%)	373 (11.21%)	184 (5.53%)	108 (3.25%)	97 (2.91%)

6. 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-2150-002								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	3.27	1.50	34 (32.08%)	19 (17.92%)	10 (9.43%)	28 (26.42%)	15 (14.15%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3267	4.11	1.02	1332 (40.77%)	1365 (41.78%)	237 (7.25%)	202 (6.18%)	116 (3.55%)	15 (0.46%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

7. The homework assignments helped me learn the subject matter.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	4.70	0.60	80 (75.47%)	22 (20.75%)	2 (1.89%)	2 (1.89%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3260	4.25	0.86	1394 (42.76%)	1239 (38.01%)	304 (9.33%)	112 (3.44%)	36 (1.10%)	175 (5.37%)

8. The textbook increased my understanding of the material.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
105	3.16	1.09	6 (5.71%)	5 (4.76%)	17 (16.19%)	7 (6.67%)	2 (1.90%)	68 (64.76%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3264	3.52	1.13	567 (17.37%)	928 (28.43%)	689 (21.11%)	343 (10.51%)	156 (4.78%)	581 (17.80%)

9. The course material was well organized and developed.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
105	4.70	0.52	77 (73.33%)	25 (23.81%)	3 (2.86%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3317	4.10	0.96	1307 (39.40%)	1315 (39.64%)	373 (11.25%)	206 (6.21%)	60 (1.81%)	56 (1.69%)

10. The instructor was knowledgeable about the subject matter.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	4.90	0.31	95 (89.62%)	11 (10.38%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3324	4.57	0.65	2044 (61.49%)	1025 (30.84%)	115 (3.46%)	32 (0.96%)	13 (0.39%)	95 (2.86%)

11. The instructor was well prepared for class.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	4.83	0.40	89 (83.96%)	16 (15.09%)	1 (0.94%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3325	4.41	0.76	1713 (51.52%)	1238 (37.23%)	194 (5.83%)	60 (1.80%)	27 (0.81%)	93 (2.80%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

12. 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-2150-002								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	3.62	1.31	32 (30.19%)	36 (33.96%)	12 (11.32%)	15 (14.15%)	10 (9.43%)	1 (0.94%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3262	3.81	1.09	813 (24.92%)	1066 (32.68%)	481 (14.75%)	254 (7.79%)	115 (3.53%)	533 (16.34%)

13. The grading policy was fair.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	3.84	1.10	34 (32.08%)	39 (36.79%)	19 (17.92%)	10 (9.43%)	4 (3.77%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3326	4.10	0.91	1217 (36.59%)	1455 (43.75%)	385 (11.58%)	168 (5.05%)	54 (1.62%)	47 (1.41%)

14. 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-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	4.66	0.57	74 (69.81%)	29 (27.36%)	2 (1.89%)	1 (0.94%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3328	4.34	0.82	1626 (48.86%)	1246 (37.44%)	227 (6.82%)	93 (2.79%)	37 (1.11%)	99 (2.97%)

15. 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-2150-002, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
106	4.67	0.56	76 (71.70%)	25 (23.58%)	5 (4.72%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
3321	4.23	0.88	1437 (43.27%)	1293 (38.93%)	334 (10.06%)	99 (2.98%)	54 (1.63%)	104 (3.13%)

16. 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-2150-002					
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
106	0 (0.00%)	4 (3.77%)	6 (5.66%)	37 (34.91%)	59 (55.66%)

Results for SEAS, 2000-level courses					
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
3270	202 (6.18%)	850 (25.99%)	1360 (41.59%)	545 (16.67%)	313 (9.57%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

17. I learned a great deal in this course.

Question Type: Likert

contributed by Office of the Provost

Results for CS-2150-002							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
106	4.81	0.44	88 (83.02%)	16 (15.09%)	2 (1.89%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3257	4.22	0.89	1459 (44.80%)	1290 (39.61%)	320 (9.82%)	144 (4.42%)	44 (1.35%)

18. Overall, this was a worthwhile course.

Question Type: Likert

contributed by Office of the Provost

Results for CS-2150-002							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
106	4.69	0.70	83 (78.30%)	16 (15.09%)	5 (4.72%)	1 (0.94%)	1 (0.94%)

Results for SEAS, 2000-level courses							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3257	4.12	0.98	1391 (42.71%)	1201 (36.87%)	411 (12.62%)	177 (5.43%)	77 (2.36%)

19. The course's goals and requirements were defined and adhered to by the instructor.

Question Type: Likert

contributed by Office of the Provost

Results for CS-2150-002, Bloomfield, Aaron S.							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
106	4.80	0.40	85 (80.19%)	21 (19.81%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 2000-level courses							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3314	4.33	0.72	1491 (44.99%)	1519 (45.84%)	238 (7.18%)	48 (1.45%)	18 (0.54%)

20. The instructor was approachable and made himself/herself available to students outside the classroom.

Question Type: Likert

contributed by Office of the Provost

Results for CS-2150-002, Bloomfield, Aaron S.							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
106	4.20	0.87	46 (43.40%)	40 (37.74%)	16 (15.09%)	3 (2.83%)	1 (0.94%)

Results for SEAS, 2000-level courses							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3316	4.29	0.85	1609 (48.52%)	1221 (36.82%)	361 (10.89%)	89 (2.68%)	36 (1.09%)

21. Overall, the instructor was an effective teacher.

Question Type: Likert

contributed by Office of the Provost

Results for CS-2150-002, Bloomfield, Aaron S.							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
106	4.71	0.62	81 (76.42%)	21 (19.81%)	3 (2.83%)	0 (0.00%)	1 (0.94%)

Results for SEAS, 2000-level courses							
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3324	4.17	0.98	1494 (44.95%)	1214 (36.52%)	388 (11.67%)	136 (4.09%)	92 (2.77%)

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

Question Type: Short Answer

contributed by Office of the Provost

Results for CS-2150-002	
Total	Individual Answers
75	See below for Individual Results

It was a massive amount of work, but I learned a lot.

Clean up the directions for the labs. They were often all over the place and contradicting themselves

This class gives too much work. I know I am a college student and it really does not matter to you. I do not understand why there was so much work. Every freaking day. Why? I neglected my other classes to do these labs. I went to office hours every day available and stayed for most of the time. I know that I am not stupid because I would have not made it this far. Why was there a lab on break? The hardest one. I said in lab 9:30 - 3:30 to finished. Why? You could have change the schedule up to make that not happen. And then topological sort right after we came back. Like why? There is no reason. You just choose not to change the schedule. I saw to many of my friend like breakdown because this amount of work. WE HAVE OTHER CLASSES AND YOU SHOULD RESPECT THAT. But I know you don't care because you think it is funny and that is why I really dislike this class. You think it is funny that we work so hard. This class does not have to be this hard, YOU choose it to make this way.

Fantastic class, very hard but very worthwhile. I have learned so much and it's helped me prepare for a job in the CS field.

This is a requirement class for my major, and I'm glad it is.

Very interesting and engaging.

Take out the Doxygen stuff completely. The introduction is far too brief to be useful, it seems like it was just thrown in at the last minute, and I don't see myself ever using it specifically. The lab reports for the Assembly labs were very hard.

Good class. Should be the second class in the CS curriculum though. I transfered from a school that started with C++. Starting with python seems lazy to me.

Great class!

Many of the labs are well designed and truly teach us about the material. However, the IBCM lab (countless hours spent for a basic idea) and assembly labs (the content learned through post-lab reports could be learned in maybe 1/10th the time) were quite frustrating. Tests were not fair in this course, not only because of harsh and subjective grading by TAs, but mostly because of the questions in the test that are just a memorization game.

Yeah this was hard.

Bloomfield is a genius; the class is extremely demanding

Course was honestly the most entertaining course I've taken at UVa thus far.

This class takes up at least 24 hours a week, no exaggeration.

I thought the class was worthwhile although it did not seem very focused. Most classes build upon previous material but this had more of an adhoc structure, switching to assembly and ibcm mid way through the semester. I do not feel I learned anything in depth although I have some more experience with broad cs topics both high and low level.

The only issue I had this semester with the course was the assignment of Heap Lab over Thanksgiving. Another comment I would make is the exams are heavily concept based, which is fine, but this almost contradicts the heavily application-based lab homework assignments. Some examined concepts should also probably be covered slightly more before being properly examined and used to determine a students' knowledge of the course's overall material. Outside of these two points, reflection shows that mostly everything in this course was reasonable and valuable, and I am very pleased to have taken this course and acquired a great deal of knowledge and skills to use in future courses and opportunities going forward.

I absolutely learned a lot. I really enjoyed what I learned. Heck, I even enjoyed a lot of the assignments (especially hashlab, IBCM, and huffnode): they were genuinely fun and I felt a surge of pride when I got each one working. I also acknowledge that at some point, you need to have a trial-by-fire, drinking-out-of-a-fire-hydrant type class that pushes you to see if CS is really your game. What bothers me about this class, however, is the following: 1. The grading is incredibly harsh. I understand that not every exam can go well for everyone, but when the class average is a 70%, what that means to me is that the students who pass this class on average only know 70% of what they're supposed to. To me, this basically says that either too much is being asked of students, or the questions are not really gaging how much the students know, and in either case this should be fixed. Additionally, lab grades were so frustrating at times, because if you had 99% of your code working but the Makefile had a bug or your code had one tiny little typo somewhere, you would get a 0. This frustrated me especially with hash lab: I did not find it hard, but I used buckets with linked lists, and when I tested my hash table with collision cases, it worked fine, but at some point after testing this I accidentally deleted the part of my for-loop that moved my iterator forward, and I spent 6 hours trying to find this error because when I tested it earlier, it worked, so I assumed the error lay in the code I had made since then. What was so frustrating was that I ended up getting a 7.5 for submitting late when the actual assignment wasn't what was hard, but just finding one tiny typo. 2. Bloomfield is a little intimidating. I know this sounds like I'm just being a baby, and honestly maybe I am, but at times in class, I would refrain from asking a question for fear of being belittled. He is a very intelligent professor (obviously), but he doesn't seem to have patience for people who don't get the material on the first try, and because of that I avoided approaching him for help, which was certainly dumb on my part, but also says something about the culture of his class, because I've never felt that way about a professor or teacher before. 3. The workload is unreasonable. I don't mean it was "too hard;" with the exception of x86 (and that was just because the 64-bit changes made the assignment weird), none of the assignments were actually that difficult. But the fact that every single week there were three assignments which could potentially take me 3-10 hours each depending (usually the pre-labs were significantly more time-consuming, but some of the in and post-labs were actually quite time-costly) was just draining. I feel like this could be remedied by either making this a 4-credit class like it really ought to be, or by at the very least making the post-lab reports into smaller, more questionnaire type things. I don't feel like I learned any more by writing a ton for my post-labs; it just took me forever to do them because I had no idea what the graders wanted to hear, and by the time I was working on the post-lab I was exhausted and didn't want to write more than necessary but also didn't want to write too little and get a failing grade.

Prof. Bloomfield was upfront about this class - he assigns a lot of work, bordering on unfair. However, you get to learn from a fantastic teacher, and you get to learn a lot.

hard but learned a lot

It was a nightmare trying to contact teachers for support requests, replies would come weeks later.

This was an amazing but extremely challenging class. I really enjoyed it! It did take up a ridiculous amount of my time (at least 15 hours a week) and at moments I got so tired of it, but overall I learned an incredible amount in such a short time and really enjoyed most of the labs we did.

Should be worth more credits.

This was definitely one of the more informative classes I've taken at UVA. Obviously, there was a lot of material to cover, and I learned a lot. The exams were extremely difficult as it was too easy to lose points here and there. Though I understand that there is no curve until the very end, it makes me nervous for my grades and my future. In the end, it is all about learning the material though, so I guess a bad grade in one class is no big deal.

While obviously a hard class that is bemoaned by many, I still thoroughly enjoyed it and would easily consider it my favorite class this semester. For people who really love CS and are passionate about it, putting the work in is not so much a chore- the material is fascinating and interesting, and I loved learning about so many facets of CS that I hadn't seen before. Professor Bloomfield, though certainly unlike any professor I had had before, was great and very obviously knew his stuff. He taught well and thoroughly and made his lectures interesting and entertaining.

Rework assembly labs

Great course, hard work.

Hands down, one of the most informative classes I've taken at UVA.

This class was required a lot of time and work. I found myself coding most of the week and not having much free time weekday evenings. Weeks without a lab left in me a weird feeling that I was forgetting to do something crucial. Many of the labs (especially the prelabs) were difficult and required an understanding of the material that (at times) I felt I did not have. This was due to the difficulty of implementing code as opposed to simply understanding concepts from class. This issue became less serious as the weeks went on. After a while the difficulty was solely based off the difficulty of the problems the lab asked to solve not based on a lack of understanding of the concepts. TA office hours had the potential to be very helpful but it was difficult to ask more than one question to a TA since they could not spend a long time on each individual and it was very unlikely to be visited again since the queues were so large. After a while, the labs seemed extremely difficult without help from a TA but the only guaranteed time to see a TA would be inlab but by then the prelab would be late. It also seemed unfair that the Huffman coding lab was over Thanksgiving break because the inlab (which I found to be most difficult and ended up submitting late) was done at home without TA office hours. I found x86 (the concept) difficult because the code written in the lecture slides was different from the code generated with the -S command which was different from the assembly code we wrote/source code (ex. vecsum.s). All these codes seemed to be completely different and I could not understand what was actually important to x86 and what wasn't or what was different about 64 bit from 32 bit (besides register names/size). The lab for x86 was difficult (lab reports) because the assembly code generated with the -S command was long and complicated. When this was done with optimization, the code was simpler and resembled code we wrote/source code (vecsum.s). Although I do understand the possible abuse, I still found the frivolous regrade policy scary and a turn-off to submitting regrades even when I genuinely felt as though I deserved points. Lab 1 talks about different ways to set up a Unix environment but I do not think it mentions SSH (or maybe I missed it or read over it). I did not learn about SSH till the first x86 inlab - when a TA told me about it - and it would have been really helpful if I knew about it because my first x86 prelab was having issues compiling (I was using a Mac). Despite my numerous complaints and seemingly endless frustration, I did learn a lot from this class, both concepts and actual, effective code. Although I spent two semesters in Java classes, after this class, I could probably write more code in C++ than Java.

Incredibly useful class. I learned a great deal. You were always prepared for class, and your understanding of the material was apparent in your teaching skill and ability to answer questions. One critique I do have, however, is that I think the grading policy could be loosened a little. There were a couple instances where I clearly demonstrated that I understood the material (on an exam, for instance), but missed a minor detail and got deducted significantly for it. Also, some of the test questions are annoyingly vague or ambiguous. But otherwise great job and look forward to taking a class from you again.

The tests were terrible for this class. It was about super-specific information that did not really have much to do with the big picture concepts learned in the course. However, the labs (although unreasonably time consuming sometimes) were engineered for us to learn the course content well and I enjoyed doing them (except assembly and IBCM).

Definitely the best class I have taken at UVa. This is the largest ratio of knowledge acquired over time that I have ever encountered in my life. It's just unbelievable how much Bloomfield pushed me to work. There was a lot of work involved and it was reasonable; however, I don't think I can agree that the number of credits is reasonable with the workload of the course. Students could easily argue for 5 credits on the course... but I think it would be much more fair to grant 4 credit for this class. Or as Professor Bloomfield would say "more better" to grant 4 credits than 3.

some of the questions on the tests allocated partial credit unfairly. The grading guidelines need work for the tests. Lab instructions were all over the place. Particularly the set up where there's a preview of the inlab postlab prelab at the beginning needs to go. Just put all the instructions in 3 sections, not 6.

The CS department is lucky to have Aaron Bloomfield instructing this course. He is smart, effective, and he clearly cares about his students education. The main things to focus on with this course that need to be fixed are the inadequacy of CS 2110 as a class and the quality/number of TAs.

Very good class

I had a lot of fun working on the labs even though I didnt finish in time :O, maybe a more flexible deadline would be helpful to ppl like me

I think there should be some way to get partial credit if a file was forgotten to be submitted and wasn't realized until the grades are returned. In addition, I think the class should be worth 4 credits. I loved the class and learned a lot, but don't think my grade represents the amount of work I have put in (mostly due to my own carelessness in submitting files). Also, there is way more work done for this class than a 3 credit class should be.

Oh where to begin... 2150 is not a class, it is a way of life. Bloomfield practically created CS, so it is only natural that he does such a great job of teaching it. The labs are so beautifully designed, and Bloomfield is probably the best lecturer I have ever had. I would comment on the excessive workload of this class, but he's been running it like this for a decade so I doubt that he/CS dept. give a crap about my opinion of that, so I won't even bother. Notes/observations/improvements: 1) Have the TA's monitor the time per student. Seriously it should not take that long to get access to TA's. Period. Please get on top of that. 2) PLEASE LEARN TO ENGLISH, BLOOMFIELD. The lab instructions take longer to read than the time it takes to run TSP on a countably infinite number of middle-earth cities. Bloomfield has no notion of conciseness or getting-to-the-pointness and basically makes everyone read a textbook's worth of instructions for every single lab, only 2 sentences of which are actually useful. This is more reading and writing than I have done in my life. Please just tell us what to do for the labs, and we will do your bidding, my lord. 3) Why in clang's name are there TWO assembly labs.... Stop the torture. Also the post/in-labs for these two are so poorly designed. which is uncharacteristic of the class. 4) Please stop trying to cram every single thing in CS into the curriculum. My brain has run out of memory - the stack and the heap have met, resulting in a supermassive black hole, or worse, a memory leak. My brain has probably seg faulted in this class more times than my programs have. 5) Pretty please make the in-labs actually doable in the lab... I have never actually managed to finish the in-lab during the lab time. These are just one of the many lies Bloomfield tells you. 6) I know "people" that have never drank before this class. Now "they" do. Coincidence? 7) After taking this class, I feel like I have seen it all. From error messages telling you that you are a time-traveler and somehow your code compiles in the future, to people passing out in class because of Bloomfield's stretching exercises. I honestly cannot remember my life before I took this class. I've made some great friendships spending 12 hours straight in Stacks doing Huffman Lab, and others. In a weird way, I will miss it. 8) JK NOPE GOOD RIDDANCE I AM RUNNING OUT OF THE EXAM ROOM SO FAST BEFORE BLOOMFIELD ASKS ME TO WRITE A HUFFMAN ENCODER IN IBCM OR SOMETHING.....

Although this class was difficult I learned so much from it and I really enjoyed it

Best and most worthwhile class I have taken at UVA so far. The material was very interesting and lectures were captivating. Occasionally I would get sleepy in class but that was because I just ate lunch. I found the lecture recordings to be extremely helpful when going over material.

Don't make it any easier. It's great.

Loved this course.

Grading with respects to the midterms seemed a little unfair (TA's didn't grade questions consistently across all exams).

I enjoyed taking this course with Professor Bloomfield, and found it to not be as difficult as everyone says it is.

The homework takes far too much time for this class to only be considered a 3 credit course.

Prof. Bloomfield is a fantastic lecturer. The C++ to assembly labs could have been improved by explaining what some of the things the compiler generates are that aren't things humans usually write.

Some of the post lab reports were kind of tedious and took too long (assembly reports), as it took a lot of time to understand what the assembly was doing.

I disliked the word limit on test questions. Often the test questions were vague, so in the process of trying to stay under 30 words I would leave out information that I knew, but didn't understand was required for the question. Without the word limit, I could include extra information that I wasn't sure the question required just in case

I have to say, having OH at 9am pretty much means you don't want students to visit you.

This course needs to telegraph its punches more. It's fair, and we can handle what it throws at us, but it would be very useful for it to make clearer what exactly it is going to be throwing at us beforehand, and in what ways we should prepare and what we should expect to have to do. This is especially true regarding the post-lab reports which are added in in the middle of the course, and on the busiest lab. It never felt entirely clear what level of quality, or what kind of polish was expected in these, and what their metrics would be for judging the polish of these reports.

Hardest course I have taken so far, but very worth while. The labs could be written in a more concise manner.

good course, but 3 credit hours isn't fair for a 3lectures+1lab/week course with the amount of time you need to spend on the course

If it wasn't for the fact that Lab 10 was assigned over Thanksgiving break, I would have a completely different outlook on this class. But the fact that you had a lab due over Thanksgiving break speaks to how little you care about student health. I could not enjoy my break due to the nature of your assignment. You say you have children yourself? How would you feel if they had to work on assignments due throughout Thanksgiving break. Very disappointed in this class b/c of this otherwise easy fix.

The course was challenging, but I learned a lot.

Okay, here goes nothing. To begin with, lets talk about all the bad-talking on this course. Before going into the course, I heard a lot of bad stuff, and how this course was like where everyone decided if they were fit for CS or not. And Overall, I think I'm really fit for CS. And those who find this class to be ridiculously difficult that they have to work all night every week, unless they are doing so because they procrastinated their work(which I did), then they might want to rethink of doing CS, in my opinion. Of course the class was really difficult, learning new material and everything, but I feel like if you have the basics of CS, some debugging skills, and adequate "research" skills, you can most likely get most of the work done alone with a few hours of work. But, middle into the course, I did feel like the 3 assignments(labs) due a week was alot. Like actually. I was done with 4 consecutive exams, and I took one day break. I found myself staying up all night after that since that week was the Pre lab for the HashTable and I didn't start until Monday... Bad choice. But, I found most of the labs to be really meaningful, unlike those from CS2110 which contained some that were just tedious and not as practical. I didn't really listen to any of the lectures, so if I did I could have probably done much better, but overall this class was great. Even while not listening to the lectures, I feel like I still learned so much just from the labs, and the occasional lecture replays.

This was a great course to take and taught an incredible amount about a new language given the time constraint of a semester, however, it should be worth more credit. Additionally, there need to be more TAs readily available at office hours because I found myself waiting for hours just to be seen at office hours. Additionally, office hours should be offered every single day and at more than just 7-10pm or 6-10pm because I had a CIO conflict on Wednesday and Sunday EVERY WEEK which I felt held me back in comparison to other students.

I think this course was great. The only complaint I have was the amount of credit hours received for the amount of work completed. While it would be easy to say just to decrease the amount of work, I think another reasonable suggestion is just to list this as a 4 or even 5 credit course. Stuff's hard, fam.

This is a very worthwhile intermediate-advanced programming class. However, the design of midterms is not so pleasant. The overall score is too low: for example, the maximum score on midterm 1 is 48, which means 1 point subtraction can cause 2% loss. Students may lose points or gain points based on luck. So it is a little bit unfair. It will be much better if the maximum score on each midterm be raised to 100.

Overall great class to take despite the work load.

Overall, this was a worthwhile course. Some TAs could have been better. There was a reasonable amount of work expected, and the instructor was good. One thing that could be better is the lab documents need to be more concise; this isn't an English class.

I really enjoyed this class, but it was a crazy amount of work. I thought that having two labs on assembly was a little bit too much, especially since we ended up having Huffman lab over Thanksgiving break which was in my opinion much harder than Hash lab. It was very frustrating to not be able to attend the usual number of office hours to work on Huffman Lab.

Great class, difficulty level was good. Was challenging but still educational.

This course was great. I learned a lot and felt like all my work was actually worth while. The tests are difficult but they acted like a learning tool just like the homework. The organization in this class was fantastic and that made the work load completely reasonable.

Great course, deserves at least 4 credits

hard but fair

2nd favorite class at UVA. Very hard and cost a lot of time, but learned a lot and Bloomfield was a fantastic professor.

Definitely a time-consuming, difficult, and at times absolutely painfully grueling, smash my computer, get pissed off, course. However, at the same time definitely worth while. Just after this course, my first semester as a Computer Science major, I feel like I really know a lot about programming and computing. Definitely learned a great deal, and found the course material very interesting. Would also like to point out that Bloomfield is an amazing professor, was a huge factor in this course being doable and a positive experience. He really knows the course material, and really knows how to successfully teach it.

I learned a lot.

super worthwhile super hard but not impossible definitely should be worth FOUR credits!! try and rearrange schedule so huffman coding isn't over thanksgiving please

Almost everything in this course was fine, except for the test questions. I felt like they addressed really specific parts of the course material and I really didn't feel like they were a holistic, comprehensive evaluation of how much you knew about program and data representation. The material on the tests were these really obscure pieces of information that were on the slides, so unless someone had perfect memory of what was on the slides, they easily lost several points, putting them at a low grade.

I am pretty upset at the test formats. Professor Bloomfield specifically said in class that answers to the test questions are not key-word based. But when I visited the wiki for the test, the grading for several questions were say this key-word or get 0 points. Also the labs take wayyyyyyy too long for this class to only be 3 credits, which I'm pretty sure no one else has complained about before XD.

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

Labs 8 and 9 made me hate my life, sifting for hours through auto generated assembly code having seen few complicated examples in class. I think I learned more about assembly from the short prelab functions than I did doing those wretched reports. Please revise those to be more active - I think I could have learned more about assembly in less time. In lab 2, I wish I had known to make a separate test file and work on the Listltr first - it was very hard to debug once I had gotten far in and only used the complex test file which doesn't let you test if your simple commands are working. Yes I learned from that lab to exercise better coding practice and test constantly, but I think I could have had a slightly less miserable week if it was mentioned more specifically that we should implement the Listltr and Node first and test their basic commands before running the test file. I always really enjoyed Bloomfields lectures - it was the only class I would go to on some Fridays. It felt important and engaging but also interesting. Floryan has better jokes tho. I learned so much in this class - it made me feel burnt out and sad at times but also happy at others. I came home drunk one night and ran my hash lab program just because it made me so hype that I had completed it and that it worked. It makes me excited to take other CS courses and I really liked how some of the concepts were synchronized with ones from 3102 and 2330.

I took this class without having taken any other CS coding classes (I took discrete) at UVA- I took two years in high school and placed out of the first two levels. This made adjusting to this class really hard but once I was back into the swing of things, it was a really worthwhile class even though I spent an obscene amount of time on some labs. My only real lab complaint was about having one during Thanksgiving break. Overall, I think Professor Bloomfield may be the smartest professor I've ever had and he's great at teaching.

Bloomfield is by far one of the best teachers I've ever had. I've learned so much more in this course CS-wise than any previous class. He is remarkably knowledgeable about everything and I think there was rarely if ever a time that he couldn't answer a student's question right away. The curriculum was obviously very well developed and the tests I felt were very fair. I enjoyed that this class allowed you to put in more time to get a better grade if you wanted to (providing all previous tests allowed you to theoretically study all 20+ and would lead to a higher score). This class taught me things that I literally would turn around and answer questions about on internship interviews the next day (this actually happened multiple times this semester). Very time-consuming class, but confirmed to me that I'm definitely in the right major. As a side note - CS 2110 does not prepare you at all for this class, that class was worthless.

This class made me go from loving Computer Science to hating it because of the amount of work it took and the short amount of time we were given to complete the homework assignments.