

# CS 2150-001 Program & Data Representation - Spring 2015

ENGR (17217)

INSTRUCTORS: Bloomfield, Aaron S. (asb2t)

Respondents: 149 / Enrollment: 209

Summary: CS 2150-001 Program & Data Representation - Spring 2015 (17217)			
<b>Overall Course Rating</b>		<b>Overall Instructor Rating</b>	
CS-2150-001 Mean 4.02 CS-2150-001 Std Dev 1.17 CS-2150-001 Response Count 743		INSTRUCTOR: Bloomfield, Aaron S. Mean 4.60 Std Dev 0.62 Response Count 1039	
Difference from Category Mean, Expressed in Category Standard Deviations		Difference from Category Mean, Expressed in Category Standard Deviations	
-0.00		0.42	
SEAS, 2000-level courses Mean 4.02 SEAS, 2000-level courses Std Dev 1.01 SEAS, 2000-level courses Response Count 14909		SEAS, 2000-level courses Mean 4.21 SEAS, 2000-level courses Std Dev 0.93 SEAS, 2000-level courses Response Count 21524	

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~						
<p><b>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.</b></p> <p style="text-align: center;">~ Question Type: Short Answer ~ <i>contributed by Bloomfield, Aaron S. (asb2t)</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Results for CS-2150-001, Bloomfield, Aaron S.</th> </tr> <tr> <th>Total</th> <th>Individual Answers</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">121</td> <td style="text-align: center;"><i>See below for Individual Results</i></td> </tr> </tbody> </table>	Results for CS-2150-001, Bloomfield, Aaron S.		Total	Individual Answers	121	<i>See below for Individual Results</i>
	Results for CS-2150-001, Bloomfield, Aaron S.						
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	<p>(as these reviews were about the TAs, they have been redacted; they were excellent reviews, however)</p>						

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**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-2150-001, Bloomfield, Aaron S.

Total	Individual Answers
145	See below for Individual Results

At least 4, the work for this class took a lot of time to finish, and I personally think that the credit should be more than it is now.

It should without a doubt be worth 4 credits. I learned a ton of information, but this is a demanding class for 3 credits. However, taking away lab material would take away from the class.

4 credits. This course requires a lot of work for 3 credits.

at least 4 (to account for the lab)

4 credits. 3 hours of lecture, and 90 minutes of lab is probably worth 4

This course should definitely be a 4-credit class. The workload, along with the lecture, would actually beg about a 6-credit label, but that is, of course, unrealistic.

4. I say this because of the lab. From the prelab to the postlab, and participating in an almost 2 hour lab, I am spending the majority of my week working on CS 2150.

4. The lab and hours required far surpass those expected of 3-credit classes.

4 credits. The amount of work and the extra lab should increase the number of credits. This is definitely not a 3 credit class and shouldn't be treated as such.

4 credits. I spent about 10-12 hours per week on the work in this class.

150

4 or 5. This class takes more out of class time than any other I've ever taken.

4, Definitely. The amount of work I put into this course for the labs exceeded my other classes by miles, and prevented me from performing as well as I could in them because of the sheer amount of time that is put in each week.

It is a fair amount of work, what I would expect for this kind of course. 3 credits seem appropriate

4, with the lab it feels like a 4 credit hour course

5. three 1-hour lectures plus one 2-hour lab = 5 hours, and the homework did take an average of at least 10 hours per week. The general rule of thumb is 1 credit-hour for every hour of class, and 2 hours of homework for every credit hour. Thus CS2150 fits nicely as a 5-credit class (including the lab, of course)

7-8 (if possible). It is said for every credit hour a class is worth you are to do 2-3 hours outside of class in order to get a good grade in the class. I put in on average 20-25 hours of work into this course completing the labs and learning the material. Computer Science majors have been getting screwed over with their credit hours since the classes with labs are not being counting as 4 credits.

Credit hours should be proportionate to the amount of work asked of the students. Therefore, it should be around 7 credits. Since this is probably not going to happen, it should at least be 4 credits.

4. It's three classes plus a two-hour lab every week, that seems like a 4 credit class to me. Plus I spent more time working on this class than any 4-credit APMA class I've every taken.

ffff (But really it should be at least 4 credits, it's absolutely ridiculous that it's only 3).

I'd say three is appropriate.

I spent more time outside of class in this course than any either courses I've taken at UVa. Without a doubt the course should be 4 credits.

4, 3 for the lecture 1 for the lab

I suppose it could be worth 4, it makes absolutely no difference to me.

This course should be worth more than the 3 credits that it currently offers currently primarily due to the time commitment for the lab. CS 2150 consumed about double the amount of time that any of my other 3 credit courses.

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

Considering how we spend 5 hours total in lecture and in lab combined, this course should be worth at least 5 credits. Taking into account the extremely large workload, 6 or 7 credit hours would also be acceptable.

I think 4 credits would be a better estimate of how much work this course takes. The labs are pretty time-intensive, and the extra hour of in-lab eats up more time than you'd expect.

4 Credits because of the added lab which takes A LOT of time. I had lighter workload in other 4 credit classes, but this is only 3 credits

Three. There are about 5 hours of formal course time a week, but it was much easier to fit into my schedule with it under-reported.

I think it's good at its current credit hours

This course should definitely be worth 4 credits

6

5

5

This course honestly should be worth at the LEAST 4. I spent at least 5-8 hours on coursework for this course, and the fact that its lab wasn't even worth some credit was frustrating. I took only 16 credits this semester, and I felt like I was taking 18+.

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4, given the amount of work required

At least 4.

4. This class required more work than any 4 credit class I have taken. No brainer in my mind

5- There should be 2 credits for the lab and 3 for the lecture

Definitely four, or at least the lab should be one. I put more hours of work a week into that lab than I have in most of the three credit classes I've taken at UVA.

4. It is an all week commitment ( Prelab, Inlab, Postlab, + 3 Lectures )

I honestly think this course should be 4 credits. The homework workload for me, an average student, was 15 hours per week.

At least 4. The fact that this was only worth 3 is absolutely ridiculous. I've never spent more time on a class.

I really believe this course should be worth 4 credits. The amount of work this course takes and the foundation it builds for other courses is very clear and it should reflect that.

Definitely 4 at least!!!

I find that, for a class whose grade essentially hinges upon this lab, this should be worth a credit. It makes no sense to have a lab that is tied in with the course have deterministic power over my grade. The course itself has tests and labs to determine the grade. Take that as you will, but if they are sectioned off mutually between the lecture and lab, they should both have some credit value to them.

4 is appropriate, but every school has a class like this

4 its a lot of work

4. Or just remove the lab and make it homework instead. Every single lab I walked in sat silently at a computer and did the lab. I easily could have done this at home.

At least 4. All classes I have taken before with a lab have been worth 4 due to the number of hours that we spend in a classroom per week.

4 at least. Three homework assignments a week should be worth 4 credits. Granted, I don't really know how they determine the amount of credits, but still.

Definitely no less than 3.

3 Most weeks I did not have to spend much time outside of class on this, but I imagine a lot of people did. I don't know what a credit hour is worth but this course was more involved than 2-credit courses and less than 4.

4! it is ridiculous that this is only 3 credits considering I put over 20 hours into it every week

4, if history of jazz music is 4 credits this class should definitely be 4 credits.

4, absolutely. This is the hardest CS class I've taken and from what I've heard the hardest in the department. In-labs often take even longer than the 2 hour lab session to complete. This was absolutely my hardest class this semester, probably the most challenging class I've taken at UVA overall.

4. Definitely not 3. Workload approaches 15+ hours per week, on a reasonable week.

Should: 3.5-4 (3 for lecture, 0.5-1 for lab) Its a bit more work than most 3 credit classes, but I think it is seen as a major class for the kids taking it. I don't mind it being a 3 credit class, since I was prepared for the amount of work it would be.

Although, the course is very time-consuming, especially if you are unfamiliar with the systems and programming languages used and you want to understand the material and there were times when I wondered if this was actually just 3 credits, I think moving it to 4 may add more difficulties at sign-up time, especially for CLAS students who have a more strict credit limit (to start) and already have trouble getting into the class. So, although I definitely think the class could be worth 4 credits, in reality, for the sake of increasing accessibility to the class for the maximum number of qualified students, 3 credits may be the number to stick with.

4 credits because of the overwhelming work of labs

I put in at least 10 hours of work a week outside the classroom, although asking for 10 credits is unreasonable. I think four would be more acceptable and more fair to the students due to the amount of time we put in. It's frustrating that we don't even get another credit for lab even though we need to go to the lab and be there doing the work.

4 - I spent ~10 hours a week on this course

I think 3 or 4 would be reasonable. Some people are able to do the labs quickly and for some people it takes hours, so it's a tough call. Overall I didn't feel like 3 was unfair.

3 or 4

4, definitely. Of the other 4 credit courses I have taken, the amount of work compares -- Intro Circuit Analysis and Physics 1 and 2 (if you add in labs). I'd say it had about 60-75% of the work that IDEAS lab had (I'm a BME) and that class was ridiculous as a 4 credit course.

4 - takes a lot of time

Four. It's a lecture plus lab format, that's pretty standardized at four credits for most classes.

4 credits since it is basically like a language course which is equal to 4 credits. The work is extensive and exceeds the amount of work required for most 3 credit classes

4 because of class plus lab

I feel like it should be 4 credits.

For the amount of work in this course, I think it should be a 4cr course.

4 credits I spent probably 15 hours a week outside of class working on the labs.



4. With the amount of time the labs take, it should be definitely more than 3 credits. 4 credits would also give students incentive to work harder as the class is worth more.

At least four credits for the amount of work it requires.

5 credits: 3 for the lecture and 2 for the lab. If a credit hour is meant to reflect the amount of time that a student must spend on something per week, then it is worth noting that the labs for this class took far more time than the 3 hours per week spent in lectures. I am not exaggerating when I say that I spent at least 5 hours every week on labs alone. It seems to make sense that the credits awarded should reflect that and that they should provide an accurate picture of how much time this course requires outside of class.

18 - Why do I say this? Because I took 21 credits and this was more work than the other 18 credits combined. Realistically, 5.

4, the lab section is very very very involved, and in many cases, it takes up more time than regular studying or other normal activities for the course would

4, lab and the amount of work towards it make 4 credits seem like a more logical credit amount.

4 maybe 5. This class was more demanding than all other 4 credit classes I have taken since coming to UVA.

More than three. This course took a lot of time out of my

4 credits; I feel that the average weekly workload is a bit overwhelming for a regular 3 credit course.

at least 4 - we spend 3 hours per week in lecture, and 2-ish hours per week in lecture, not to mention the numerous hours spent completing lab work.

3 for lecture and 3 for lab, make the class 2 separate grades

I would recommend 4 credits, 3 for lectures and 1 for labs.

4, this class requires A LOT of work and this should be reflected in the number of credits we get. We meet three times a week, plus a 2 hour lab which is more than most 4 credit classes which meet 3 times a week and a discussion.

4-credits I spent about the same amount of time on this course as previous 4-credit courses, so 3 is a bit under.

4 credits as the amount of work asked of students is not reflected properly as a 3 credit course.

This class should definitely be worth 4 credits. As a Computer Engineering student, I will say that this class is just as much work as my 4 credit ECE courses. The fact that the labs are essentially 3 assignments per week merits it being a 4 credit course.

I believe it should be 4 credit course, especially because it is a lecture and a lab, which many courses with that kind of structure have 4 credits.

Definitely four credits. All of the labs were incredibly beneficial to my learning and having completed them I wouldn't want them any other way. That being said, I typically spent a minimum of six hours on the pre-labs, and have spent up to 14 hours on more difficult pre-labs. Furthermore, I often had to submit an extension for the in-labs, and the post-labs required some work as well.

The course should be worth 3 credits. It is a 3 credit hours class, and the work expectations were not excessive.

6 credits

4, at least 4

4. 3 for lecture 1 for lab

4 credits, as the lab is a substantial part of both the course material and the grade percentage

Definitely 4 - most of the work in this class comes from the lab sections, in addition to 3 lectures per week. There is a lot of material covered, definitely enough to justify 4 credits.

This definitely feels like a course with 4-5 credits of work. Since 5 credits is pretty unreasonable, I think 4 credits would be good.

at least 4

In a perfect world, this should realistically be 5 credits. I've taken four credit classes and this is definitely a step above. But college doesn't do that, so 4. Definitely more than 3. Make the lab a credit class or something.

Assuming that saying "6" won't be taken seriously, I think that this course should be worth 4 credits. Each week has three hours of lecture, and we spend a typical amount of time spent studying lecture material outside of class that can be expected for a three-credit course. However, each week additionally has an hour and forty-five minutes of lab time to complete only the shortest portion of the weekly lab; we spend significantly more time outside of class working on the prelab and postlab plus whatever we couldn't finish during the lab time compared to the time that we spend on work outside of other classes. The amount of concrete work that needs to be turned in each week (rather than merely the more subjective amount of studying that should be done each week) demands more than enough time for this course to be worth four credits. Intro Physics has the same amount of lecture and lab time and is worth four credits combined (three for lecture, one for the weekly lab). It also had assignments for a pre-lab, in-lab, and post-lab each week, except the pre-lab and post-lab together took a fraction of the time that either alone for CS 2150 took. The physics pre-lab would take at most around a couple of hours, the in-lab had to be completed during the assigned in-class lab time, and the post-lab had a timer that gave us less than an hour to complete it. If that class in addition to other similar introductory courses that have three hours of lecture per week plus a weekly or bi-weekly lab are four credits, CS 2150 certainly should be worth at least as many.

4 - The amount of time spent in lab and outside of class is far more than a normal 3-credit class.

Unless the lab becomes a separate, 1-credit course, the course should be worth 4 credits.

at least 4 credits for the amount of work invested into this class.

4 credits for sure

This should definitely be at least a 4 credit course. We are in lecture for 3 and in lab for 2, with at least 4 hours of homework a week. Compare this to my GIS course, which is 2 lectures a week and a lab that you only need to show up to for the first five minutes, and an hour or so of homework a week, which is 4 credits.

I don't think I'm in the correct position to make that call, since I am just a student and I don't have enough information to make an educated decision. Therefore, it should be worth however many credits the university decides to make it worth.

It should be four credits. The class is three lectures and one lab each week. Further, it was perhaps the most time demanding course that I have taken here.

Four credits, requires a lot of work.

Three credits is a good number. I believe even on the "worst" lab weeks, I spent no more than 5 hours outside of class working on material. If the rule is "1cr = 3hrs outside of class," this class could actually be made harder and still fit that criterion.

Four, it was the most time consuming class I've taken so far.

Four; with a lab session and the number of hours that has to be put into this class, it's insane that this class is only 3 credits.

4. We meet 4 hours a week. 4 credit hours. IT MAKES SENSE.

Four. I believe the introductory chemistry course was four credits and it had a comparable amount of class and lab time.

3 or 4? The amount of work is pretty heavy, but I don't really feel like there's much of an advantage to increasing the number of credits it's worth.

This course should definitely be worth 4 credits. It is the most work I have ever done for a class. It is interesting and fair work, but you need to spend hours out of class working on the labs.

3 - while most complain the amount of work required is manageable if you stay up to date on the assignments.

4. I took a class called MDST 2010 that was 4 credits and it required way way way less time than this class.

I think it should be worth 4 credits because in my opinion, a 3 credit class requires 15 hours a week. I did way more than that for just the pre-lab sometimes.

This course should DEFINITELY be at least 4 credit hours. I spent countless hours each week doing lab work and/or preparing for tests.

4. The labs were very nontrivial and prelab, inlab, and postlab combined towards the end of the course would typically take more than four hours of my time total.

4. Clearly.

4, most definitely

Work wise, there is no doubt that this course deserves 4 credit respect.

4. This course absolutely requires more work and time than any other course I have taken at UVa and deserves to be treated as such.

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

4 credits. I worked harder in this class than I did in my 4 credit courses.

4 credits

4. The amount of time I spent on this class weekly exceeded the amount of time I spent on any of my other 3 credit classes, and it also exceeded the amount of time I spent on my 4 credit class.

4 credits. It has much more work than a 3 credit should ever have and there's a lab component part of the schedule as well.

This class should remain three credits. A four credit class usually involves a lecture section with assignments, and a lab section with separate assignments. However, CS2150 lecture has no assignments other than the labs, so to say it is worth four credits of work is disingenuous. Compare this to the majority of ECE classes (which are mostly four credit classes now), which have regular homeworks and projects in addition to daily labs and lab reports. To make CS2150 a four credit class undermines the definition of a four credit class.

3 with a warning about the workload. Yes, this course is a lot of work and a lot of hours, but unless the average is a B or higher a class should not be worth more than 3 points. (Right now the average is 2.96, or just below a B)

**3. 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-2150-001								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	4.77	0.47	117 (78.52%)	31 (20.81%)	0 (0.00%)	1 (0.67%)	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)
2981	4.34	0.76	1417 (47.53%)	1267 (42.50%)	201 (6.74%)	60 (2.01%)	25 (0.84%)	11 (0.37%)

**4. 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-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	4.21	0.86	67 (44.97%)	49 (32.89%)	24 (16.11%)	6 (4.03%)	0 (0.00%)	3 (2.01%)

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)
3088	3.97	1.09	1149 (37.21%)	1147 (37.14%)	380 (12.31%)	231 (7.48%)	130 (4.21%)	51 (1.65%)

**5. 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-2150-001								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
148	3.32	1.43	39 (26.35%)	42 (28.38%)	16 (10.81%)	29 (19.59%)	22 (14.86%)	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)
2983	4.06	1.03	1146 (38.42%)	1277 (42.81%)	248 (8.31%)	197 (6.60%)	109 (3.65%)	6 (0.20%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

**6. 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-2150-001								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	4.69	0.51	106 (71.14%)	40 (26.85%)	3 (2.01%)	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)
2981	4.17	0.92	1163 (39.01%)	1115 (37.40%)	272 (9.12%)	140 (4.70%)	46 (1.54%)	245 (8.22%)

**7. 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-2150-001								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	3.05	1.01	8 (5.37%)	10 (6.71%)	39 (26.17%)	12 (8.05%)	5 (3.36%)	75 (50.34%)

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)
2986	3.45	1.19	425 (14.23%)	670 (22.44%)	508 (17.01%)	273 (9.14%)	167 (5.59%)	943 (31.58%)

**8. 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-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	4.67	0.50	102 (68.46%)	45 (30.20%)	2 (1.34%)	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)
3062	4.03	1.03	1129 (36.87%)	1244 (40.63%)	368 (12.02%)	177 (5.78%)	110 (3.59%)	34 (1.11%)

**9. 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-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
148	4.92	0.32	138 (93.24%)	8 (5.41%)	2 (1.35%)	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)
3077	4.54	0.71	1927 (62.63%)	920 (29.90%)	135 (4.39%)	38 (1.23%)	22 (0.71%)	35 (1.14%)

**10. The instructor was well prepared for class.**

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
148	4.82	0.40	123 (83.11%)	24 (16.22%)	1 (0.68%)	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)
3077	4.39	0.79	1605 (52.16%)	1122 (36.46%)	214 (6.95%)	63 (2.05%)	30 (0.97%)	43 (1.40%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

**11. 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-2150-001								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
148	3.75	1.06	37 (25.00%)	60 (40.54%)	29 (19.59%)	13 (8.78%)	6 (4.05%)	3 (2.03%)

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)
2978	3.88	0.97	721 (24.21%)	1192 (40.03%)	484 (16.25%)	175 (5.88%)	66 (2.22%)	340 (11.42%)

**12. The grading policy was fair.**

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for CS-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	4.29	0.72	64 (42.95%)	66 (44.30%)	17 (11.41%)	2 (1.34%)	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)
3079	4.12	0.91	1149 (37.32%)	1354 (43.98%)	352 (11.43%)	132 (4.29%)	60 (1.95%)	32 (1.04%)

**13. 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-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
149	4.62	0.54	97 (65.10%)	48 (32.21%)	4 (2.68%)	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)
3072	4.29	0.85	1421 (46.26%)	1223 (39.81%)	242 (7.88%)	89 (2.90%)	46 (1.50%)	51 (1.66%)

**14. 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-2150-001, Bloomfield, Aaron S.								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
147	4.66	0.50	99 (67.35%)	46 (31.29%)	2 (1.36%)	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)
3069	4.16	0.91	1240 (40.40%)	1227 (39.98%)	365 (11.89%)	105 (3.42%)	62 (2.02%)	70 (2.28%)

**15. 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-2150-001					
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
149	0 (0.00%)	4 (2.68%)	35 (23.49%)	40 (26.85%)	70 (46.98%)

Results for SEAS, 2000-level courses					
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
2988	203 (6.79%)	996 (33.33%)	1158 (38.76%)	365 (12.22%)	266 (8.90%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~																
<p><b>16. I learned a great deal in this course.</b></p> <p>~ Question Type: Likert ~ contributed by Office of the Provost</p>	Results for CS-2150-001																
	<table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>148</td> <td>4.80</td> <td>0.44</td> <td>120 (81.08%)</td> <td>26 (17.57%)</td> <td>2 (1.35%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	148	4.80	0.44	120 (81.08%)	26 (17.57%)	2 (1.35%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
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Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2964	4.17	0.92	1262 (42.58%)	1180 (39.81%)	333 (11.23%)	139 (4.69%)	50 (1.69%)										
<p><b>17. Overall, this was a worthwhile course.</b></p> <p>~ Question Type: Likert ~ contributed by Office of the Provost</p>	Results for CS-2150-001																
	<table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>148</td> <td>4.73</td> <td>0.49</td> <td>111 (75.00%)</td> <td>34 (22.97%)</td> <td>3 (2.03%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	148	4.73	0.49	111 (75.00%)	34 (22.97%)	3 (2.03%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
148	4.73	0.49	111 (75.00%)	34 (22.97%)	3 (2.03%)	0 (0.00%)	0 (0.00%)										
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Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2980	4.12	0.98	1250 (41.95%)	1141 (38.29%)	354 (11.88%)	158 (5.30%)	77 (2.58%)										
<p><b>18. The course's goals and requirements were defined and adhered to by the instructor.</b></p> <p>~ Question Type: Likert ~ contributed by Office of the Provost</p>	Results for CS-2150-001, Bloomfield, Aaron S.																
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	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
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3066	4.27	0.78	1316 (42.92%)	1402 (45.73%)	238 (7.76%)	86 (2.80%)	24 (0.78%)										
<p><b>19. The instructor was approachable and made himself/herself available to students outside the classroom.</b></p> <p>~ Question Type: Likert ~ contributed by Office of the Provost</p>	Results for CS-2150-001, Bloomfield, Aaron S.																
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Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
3072	4.25	0.84	1373 (44.69%)	1252 (40.76%)	322 (10.48%)	91 (2.96%)	34 (1.11%)										
<p><b>20. Overall, the instructor was an effective teacher.</b></p> <p>~ Question Type: Likert ~ contributed by Office of the Provost</p>	Results for CS-2150-001, Bloomfield, Aaron S.																
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	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
149	4.70	0.50	108 (72.48%)	38 (25.50%)	3 (2.01%)	0 (0.00%)	0 (0.00%)										
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Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
3085	4.15	1.01	1383 (44.83%)	1137 (36.86%)	303 (9.82%)	164 (5.32%)	98 (3.18%)										

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

Question Type: Short Answer

contributed by Office of the Provost

Results for CS-2150-001	
Total	Individual Answers
106	See below for Individual Results

This class is difficult, and requires a lot of work outside of it's labs and lectures, much more so than a 3 credit class should. There is little preparation for the class beforehand, so one would expect some flexibility with grading, but there isn't too much of that.

CS2150 is very challenging and is probably deserving of a higher credit number for the amount of work required.

Please provide better access to CS labs so that we aren't limited with lab class sizes or places to work in.

I'm not a fan of required attendance and being forced to come to class did not make me more eager to pay attention. Lab 12 needs some work.

Extremely difficult and time consuming course but I feel I have grown a lot as a programmer and have a much better understanding of how computers work.

Overall, I'd say Prof. Bloomfield and his team of TAs did a great job. This course requires a lot of hard work and time commitment. However, it all pays off considering the material we cover. I learned a lot in this course that I feel pretty confident about the future of my CS career. I know others may say it was ridiculously overloaded, but hey this is a CS course. You dont come in expecting it to be easy. Coming into the course I heard a lot of stuff about this course; some of which I experienced. In general, Prof. Bloomfield gave me knowledge more valuable than I paid for. His style of teaching is perfect. I also like his sense of humour. Thanks Prof. Bloomfield.

It's my second time... gg

I loved this class and learned more than I ever have, but it consumed my entire week which made it hard to succeed in my other classes. It was fantastic and all the labs were worthwhile, but I think you could cut down on the workload some.

Overall this course was fantastic. I don't think I will learn this much information in one single class again at UVA, and I don't think I want to. this class was rigorous but fair; it is the best class I never want to take again. As mentioned above, I think this should be a four credit class. It is very demanding, but I wouldn't want the material to change. Thank you for such a great class, the teacher and TAs put a ton of effort into it.

So much work

I would have liked the course better if the lecture material was tested more frequently than the few tests this semester or more in-depth during the labs.

This was an incredibly rigorous course, but it is worthwhile. Unless you have a lot of free time however, I would not recommend taking this class.

Fantastic class, just needs to be worth more as it made up for nearly half of my entire work this semester. A possible suggestion would be to have the postlab's before the hard labs (6 and 10) start the material or be to read or just something that helps to spread those labs out as they were large jumps in our knowledge. Great TA's, thanks for the ride.

I found this course, abet difficult, very enjoyable. The overall course load does drastically increase following the first lab, which can cause a few... auxiliary difficulties with regards to overall time spend really understanding the subject matter. However, this is warranted in part to the breadth of topics that must be covered in this limited time. Overall, an important course that could see some revision in how quickly it is taught and how clear the labs are in their wording (as well as the exams. It is a headache to parse through the wording on the exams and labs. Slightly ironic considering we have CS 2102 as a prerequisite, a class that emphasizes clearness and the lack of ambiguity in specifying problems).

This course was, hands down, a ton of work. This course honestly covers such a large range of topics that I often wondered if it should be split into two courses. Some topics I felt more comfortable with, others I really did not feel so great about and struggled with those labs. But this course has completely changed my perspective about computer science. All those esoteric computer specification words: RAM, cache, etc. suddenly make sense after taking this course. I learned how to use a command prompt, I worked with a Linux environment for the first time, what the difference between a LinkedList and an ArrayList actually was -- for someone like me, who hadn't spent years already self-learning before taking this class, this course really made me realize how much I still had to learn in the computer science field and motivated me to take more initiative in my learning. What I thought "computer science" meant to me has completely changed through taking this class. For anyone who's even <seriously> interested in computer science, this class is indispensable and I would recommend it to anyone and everyone. Sure, it ate up my life, but I have a lot of gained knowledge and understanding to show for it.

Great class. Definitely the most worthwhile class I've ever taken

Crazy hard class but worthwhile in the end.

Bloomfield is one of the best CS professors you should anticipate ever having. Learn from him while you can and really do your part, too, to make this course worthwhile.

Although a difficult class with a heavy workload, I learned a ton in this course and enjoyed it for the most part. I entered this course a programmer and emerged a computer scientist. This has been the most important class I've taken up to this point.

Very high workload but good class

This class really made me aware of how poorly I manage my time.

This class is difficult but fair. The amount of knowledge I came away with was well worth the challenge.

I know a lot of people complain, but I genuinely enjoyed learning about and applying all of the material, although the lab explanations could stand to be a bit more succinct and less long winded. Thanks for everything!

The use of technology in this course (github, online lab submission system) was very convenient and preferred over collab.

Bloomfield was great and clearly demonstrated his knowledge of the subject matter as well as his enthusiasm for CS. The assignments were all very helpful, and I liked that the labs allowed us to get experience with coding while the tests assessed our knowledge at a higher level. My only complaint with this class is that the labs took so long to be graded. It made it difficult to learn from my mistakes and to correct them before being tested when grades were not delivered until weeks (even months) after the assignments were due. In many cases, I was unable to correct a mistake and wound up making the mistake again in other labs.

As a mechanical engineering major, I took the course without having taken one CS course. It was still possible to follow the course and after 2-3 weeks introduction straight forward. -> Appropriate for the level, but not too hard!

The course really should be 4 credits. 3 lectures and a 2 hour lab per week...plus your whole week is consumed with the lab assignment.

Probably the most time I've spent working on any class at UVA thus far, but I've also learned the most and have genuinely enjoyed taking it. Bloomfield is the best.

It really shows that Professor Bloomfield has taught this course for 8 yrs. It was very helpful when he could anticipate the level of difficulty of each lab and could stress the things that were more important to study.

Professor Bloomfield made this course a wonderful experience and I was amazed by the speed with which he and the TAs graded exams and labs, and how efficiently questions were answered. I also like how prepared and organized Professor Bloomfield is (especially compared to many other professors) and appreciate the time and effort he puts into the course to make sure students have all the resources necessary to complete assignments and that students do not have to worry about irrelevant details. Thank you!

NA

I kind of wish this class had moved a little faster, but overall a great course!

I was not prepared well for this class.

This class is the easily the hardest course ive taken at UVa with the most amount of work. This class made my semester unbelievably hard, I think I spent more time on this class then I did on my other 12 credits combined. I learned a lot but I think I could have learned equally as much with slightly less work.

Toughest class I've ever taken in my entire life but the sense of accomplishment I got when I finished an assignment was unbelievable. This class caused me to have countless mental breakdowns, made me want to rip all my hair out, cost me my entire weekend on top of at least 15 hours a week, shot my self esteem to the ground, and made me want to quit CS and become a homeless beggar, but I guess I would say this class was worthwhile.

Excellent course but I think it should be worth 5 credits.

Excellent course!

Prof. Bloomfield was one of the best professors I've ever had. Very difficult course but the content was so worthwhile.

I know you complain about the TA resources and I am sure its true, but I have never been to TA Office Hours but piazza is good.

Very worthwhile and informative course - the "point of no return" class for CS majors.

It's a great course - Prof. Bloomfield has been teaching it for some time, and knows what he's doing. I enjoyed his dynamic lecture style. It's evident that he cares about the class and the CS program.



Please give more money to the Computer Science so that we may have more exceptional professors like Professor Bloomfield. Sure, somewhere 10-15 hours into the weekly lab I hated him so much, but by the end I have emerged very learned in the art of programming.

CS2150 was obviously very hard course, but worthwhile. If anything, since it's a core class for a very full major, it should be more difficult. While from a micro scale I feel that the material could have been learned with less work, this class is the first difficult class CS majors encounter and as such should really weed out the people who are not equipped to handle the major. I also think this should be the requisite course for declaring the major in the college, not the intro class.

This was by far the best course I've taken at UVA and Professor Bloomfield was an incredible professor. It was hard but really fair and I think I've learned a great deal after taking this course. I wish it was more credit considering the amount of time that everyone had to put into it.

Way more work than appropriate for 3 credits. However, this course was incredibly worthwhile and very useful. I will use this information for the rest of my life so it is very validating to know that my efforts will not be for naught.

This was the most worthwhile course I have taken at this University.

What a ride.

Great class.

This course is like puberty. I just became a beautiful CS flower.

Great class! People warned me not to take it first year and said the workload was horrible, but I am happy I did and thought they exaggerated a lot about the difficulty of labs.

This course, coming from someone (4th year BME) who took it for fun, was interesting and incredibly worthwhile. It was definitely the kind of material I was hoping to learn when I enrolled. I would say that it was a bit more work than I expected. For having to teach such a large class, Prof Bloodfield was engaging, informative, and well-prepared. I could tell that he put a lot of time and effort into refining his lectures.

Professor Bloomfield is an great lecturer! I wish the lab descriptions were more specific; sometimes it was hard to figure out exactly what we were supposed to do.

Very time consuming, but I feel my abilities in front of a computer are far more advanced than they were a semester ago.

Great class that taught me so much about Computer Science all in one semester. That being said, this class is called the "weed-out" for good reason. I started early on every lab and still found myself going back to office hours multiple times to finish. It was overwhelming at times and mind-numbingly frustrating when my program refused to run because of one bug. The tests were fair, the curve was generous and Professor Bloomfield not only knows the material very well but can teach it effectively. I can't say I "enjoyed" the class but it was very worthwhile.

In question 7, I use "textbook" as referring to any and all readings in the course. CS2150 is an excellent course. I might have preferred a few more external sources for example code, or even a little more guidance through labs 2 or 3 on how to go about our implementations, but overall the course was excellent.

Fantastic course. Did a great job of covering a breadth of material without seeming disjoint at all. Learned more about CS from this course than any previous by a long shot. Bloomfield is god.

Great Course

Frustrating as anything but definitely worth it.

This was a great course, but I think it would be more effective if overlap between other required CS courses were eliminated.

As expected, this class was very challenging. I felt like CS 2110 was wholly inadequate in preparing students for the course. Honestly, I probably could have gone straight from 1110 to 2150 and done equally as well in the class. Bloomfield was very up front about how challenging the course was going to be, and he did not disappoint. I think this could be greatly alleviated by having a real class as the second in the CS track instead of what I realize now was virtually a wasted semester. I learned an incredible amount about computer science this semester and I feel very well prepared for the rest of the classes in the department, but there was no need for it to be as painful as it was.

#### HELPFUL AND AWESOME

This is the best course that I have ever taken. Professor Bloomfield is the absolute best professor. He is so passionate and knowledgeable. Despite his prestigious background, he is modest and caring. His lectures are captivating and saturated with interesting information. The course was well structured and perfectly covered all ABET requirements very elegantly. Bloomfield manages all of his systems manually and has a lot of experience in the field of computer science. Would recommend this course to anyone interested in Computer Science.

It was really difficult. Not so much the material but the sheer amount of work that needed to be done. Constantly having labs was almost too much in conjunction with my other classes and especially by the second half of the semester I was just tired and felt really beaten down by the workload.

Extremely worthwhile course. Learned a ton. Bloomfield is great, if unforgiving. The workload is almost overwhelming. The fact that it's 3 credits is just absurd.

I felt like I was dying sometimes throughout the semester but looking back on everything I can't believe how much we learned. This was probably the most work I've ever had to put into a class but regardless of what grade I end up with, it was well worth it.

I really enjoyed taking 2150 this semester. Although stressful at times, and very time-consuming, the class was incredibly interesting. I have reflected on this past semester, and I understand much more about computer science than when I began. Professor Bloomfield did a great job of lecturing the course and I was able to enjoy lecture each day. Although difficult, the tests were fair and really challenged us to completely understand the material. I think I got a lot out of this class that will be useful for the rest of my CS career and for my ability to problem-solve effectively.

I think the labs should have been on Wednesdays and that would give us more time to complete the prelab because that was always the most difficult part of the lab and that way we had more days to think about it, work on it and go to office hours. The post lab didn't need as much time as was given to complete it.

This course was AWESOME! :D Bloomfield is the best instructor I've taken thus far, and the work that he has placed into the course materials/labs/tutorials is amazing. Also, this is an awesome difficulty level. So many courses (and, at the risk of losing anonymity, I've taken 3000 and 4000 level CS courses) are borderline boring because of lack of material--to be honest, some courses make me feel like I'm still in high school. In fact, I wish that all of my classes were this approximate difficulty/workload--this is what I expected college-level work to be, where I actually have to work for my grade. My other classes tend to take about one or two hours a week (no other studying). This class actually took closer to 5-7 (no other studying/work) and made me feel like I had actually accomplished something by the end of the course.

Overall very good course. One suggestion I would have is to include greater point distribution on the tests so that the test grades aren't as "All or nothing" as they are right now. I have friends who understand the general concepts quite well and don't have much trouble with the labs, but getting tripped up on just one concept on a test drops their grade 10-20%

n/a

I think this was a great class. I definitely learned a lot from Bloomfield.

Although the generic lecture approach works for some, I feel that it was kind of hard to follow along during some lectures. It felt like we would move too fast past some of the harder material, and we would sometimes spend a painfully long time on easy material that I understood by just reading the slide.

Overall this course was definitely worthwhile. I found myself talking about the content we learned about and worked on in interviews and discussions all the time. There is a lot of work involved but it wasn't impossible to do, just sometimes tough. I enjoyed my time during the course. The only thing that annoyed me was the support request response time. I currently still have 2 waiting to be responded to and my other one was regarding taking the first exam. I was extremely sick and would have rather come in at a later date, so I put in a support request. The request wasn't looked at for about a week or so after the exam so I had to come in and take the exam. Other than that, there are no real major problems I have with the course (except assembly sucks).

Bloomfield was rock star. His ability to explain and deliver material during lecture was extremely impressive. His 16 semesters worth of experience (in addition to his raw capability as an instructor) really shined throughout the course. As far as recordings are concerned, anyone complaining about the need for a microphone needs to turn down the volume on their ear phones, Bloomfield projects and I thought the audio on the recordings was great. Piazza was also awesome, along with the twitter feed and course calendar. Definitely keep these features for next semester. My only complaint about the course was the lack of reading materials / resources available outside of the slides, specifically in regards to the 'research' labs on x86. Since google sources often did not prove too useful, my research was usually just what I could reason my way to and hunt down evidence for in the code (which was usually pretty darn effective, but extremely time consuming). As a result, I was only able to investigate the minimum topics required for the lab and on the choose 2 of the 4 to explain, I never got answers to the other 2 because no answers or sources with the answers were released. In a way, it felt like the information I wanted to learn was being held from me. I didn't always have the time to go to office hours, wait a long time in the queue, and hope one of the ballin' TA's serviced my request and could drop some knowledge on me. It would have been great to have instructor-verified, correct material to read through in 20 to 30 minutes on my own time. Additionally, I found the lab tutorials to be just OK (especially the shell scripting one). I spent 45 minutes reading that tutorial only to find it didn't really pertain to the code I had to write for the in lab and ended up having to google to get it done. Other than this though, great great great course.

One of the best professors I've had, one of the classes that I've learned a lot from. Wished I felt more prepared for it, and had more time in my schedule to dedicate to it.

Very challenging and time-consuming course, but also very worthwhile. I probably learned more about CS from this course alone than I did in the last two CS classes I took.

Maybe spend a little more time on debugging when we go over it in lab 2 since it's useful throughout the semester.

I don't hesitate to say that this was by far the best yet the most challenging class I have taken at UVA. I have never taken another class in which I learned more, worked harder, or felt more accomplished than this one. The ways in which it was the most challenging were the reasons that made it the best--the lectures were the best taught and had the best organization from my experience as a student, the assignments were very effectively designed to challenge students in a way that we learn the material and apply concepts learned in lecture, and the workload required proactive time management. In every aspect, Professor Bloomfield was the most effective teacher I have had, and I think one of the main reasons he is such a successful teacher is his awareness of how each component of the class works for his students and how open he is to constructive feedback. I wish more professors took his approach in how he designs lectures and homework as well as how he constantly seeks to improve an already very impressive course. This class truly embodies an ideal college course that guides students to learn to think on their own while having plenty of resources to help accomplish this learning (lectures, labs, slides, readings, tutorials, assignments, office hours, piazza).

Although this class was challenging, it was my favorite this semester. Bloomfield is a great professor and really enjoys teaching.

Although it was highly educational and a great use of my time, CS2150 is too much work to be treated as a 3-credit class. On the flip-side, C++ is a great language to teach the class in, and I wholly support and appreciate the decision to teach the class in C++.

Bloomfield is a boss and this is one of hell of a course. I'd be surprised if there's a better class anywhere at UVA. Normally when a class isn't going well, it can be down to poor design or an incompetent professor. Not here. In this class, you get what you put in. It's so fair in that respect that it should be a model for other classes. It's also mind-bogglingly organized. Bloomfield has perfected the art of lecturing this class and distributing assignments. Yes, on even weeks you're bombarded with tear inducing and blood boiling labs, but...you feel so much peace when everything works. The satisfaction of a functioning lab is almost worth all the pain it took to make it. The only downside of this class is that the tests are a bit silly. To do well, you have to memorize every detail in the slides and the readings. I can't really say that's super beneficial to learning. All in all, this class is awesome. Immensely time consuming, but the assignments are never busy work. A lecture and assignment on Japanese swords would be the only addition I'd suggest. Also, I don't know who is reading this, but if you have the power, give Bloomfield a raise.

Bloomfield is an amazing and engaging professor. The class is enjoyable and challenging. The lab is useless. It is just a homework assignment except I have to go to class once a week AND since the lab is an hour and 45 minutes it screws me over for the 11-1215 block of classes and for the 1230-145 block of classes. Get rid of the lab and just have the labs be homework assignments (because that's all they really are anyway). Or at least reduce the time to an hour and 15 minutes so students don't get screwed out of two class blocks.

At times, this class was a gross amount of work. Given that the class was only 3 credits, far more than 3 credits worth of time was needed for it. Either CS2150 would suffer or my other classes would suffer because there was simply not enough time in my day to complete all the work. I did learn a lot though.

This was my favorite course at UVA so far. It was the course I learned the most in by far. Bloomfield is an incredible teacher; he knows exactly how to explain the material in a way that we can quickly absorb and apply it. Every hour I spent on the labs was worth it because I felt like I was truly gaining valuable skills and knowledge. The tests were fair, and overall, I'm very pleased with Bloomfield and the course. I will say that it should be a 4 credit course based on the amount of work that I had to put in each week.

There was a lot of materials, but Professor Bloomfield taught those materials well in a short period of time.

Solid course that demands you put in the proper hours into. Sure, there are students that complain about the workload, but then again, no one pursues a CS degree with the expectation of breezing through it. You know what you signed up for, so expect to be challenged. That challenge was fairly and justly provided by this course.

Its frustrating when I stay up all night trying to get my programs to compile and run then when they do not. I only receive at most half credit even though I spent maybe up to eight hours trying to get it to work.

Professor Aaron Bloomfield obviously puts a lot of time and effort into the organization and content of his class. This is evident in his teaching lectures. The course assignments were all productive.

I really enjoyed the class overall. It was a lot of work, but worth the effort. My only complaint was that I felt test questions could have been clearer in some cases (particularly with questions structured as fill-in tables).

Tough course but it made me becoming a better programmer

This was definitely my most challenging class this semester, but it was also the most rewarding. I also think the "rewarding" aspect was more prominent than the "Why did I take this class that makes me think I'm an idiot when it comes to understanding computers and makes me wonder if I'm cut out for this major." All oddly specific strange statements aside, I would recommend this class highly. Out of all the Computer Science classes I have taken at UVa thus far, I have learned the most from this course. Even though I still don't have the strongest grasp on all the material, being exposed to it, having the chance to work with so many different computing tools (different OS, assembly language, intro to machine language, C, C++, Objective C, github, etc.), and even getting to screw things up royally in trying to learn how to properly use these (which, honestly, sucks in the moment - especially when you realize 15 hours of work on a lab will still not ensure that you can turn it in on time with all required functionality). Professor Bloomfield is amazing - he's funny, knowledgeable, and engaging as a lecturer. He's really passionate about computing, and you can't help but share in that enthusiasm. The TA's are absolutely phenomenal, and, in addition to being invaluable facilitators of understanding, they're awesome people. There is so much good to say about this course, but as a closing thought, this is the course where you learn to "walk the walk" of a computer scientist (as a TA told me). This is when you start feeling like a real computer science person too, and that is absolutely fantastic. This has been my favorite course at UVa thus far. Also, you get to "traverse" Middle-Earth in a lab assignment (Traveling Salesman Problem) - how cool is that?!

The hard work was well worth the knowledge gained. My test grades are, thus far, very poor and don't really reflect what I've learned in this course. The labs are incredibly difficult, but teach quite a bit. The tests, I think, are a bit too difficult. I feel like I'm supposed to just regurgitate slides, which is something I'm not very good at, as opposed to using what I've learned in lab activities. Prof. Bloomfield was amazing, though, and was truly one of the best lecturers I've had here at UVA, right on par with Prof. Dugan in my book. I'd typically spend 10-15 hours for each week's prelab, which I thought a bit excessive. I'd usually spend another 4-5 hours on the inlab, and then a few more hours on the postlab. I understand that maybe I'm spending more time than most, but I don't think I worked that slowly. I think the work was pretty excessive, but then again, I fully expected it coming in to the course.

Hard course. Very time intensive. Learned a lot, though, so I guess was worth.

The tests are too difficult and based way too much off the lecture material and not the lab material.

I have learned SO MUCH from this single course, thank you.

The course itself was great. I learned a lot and Professor Bloomfield was a phenomenal instructor. Perhaps the tests could have some coding questions on them to aid those of us who are better at coding and not quite as strong on the concepts. On a more general note, CS 2110 is a complete joke and going from that class to this one is like going straight from learning how to doggy paddle to swimming the British Channel. CS 2110 needs to be significantly increased in difficulty to help people prepare for this course.

TA office hours are extremely inefficient. There should be a time limit on how long a TA can spend helping a student so the queue doesn't get backed up. Some students go into office hours having done none of the homework and have the TA sit with them to do the entire assignment which is unfair to students who have attempted the assignment and are asking for help because they got stuck somewhere.

Professor Bloomfield was absolutely one of the best teachers I have ever had: he was incredibly knowledgeable, a very effective communicator, and passionate about the subject matter. Furthermore, between the lectures, the actual lecture slides, and the material presented in labs, I have learned more than I ever believed possible in a single semester. My only complaint is that the labs are often confusing to read. Sometimes some parts of the labs will contradict each other, or repeat, and it takes longer than I would like to actually read through and understand what is required in the lab.

Overall, this was an extremely worthwhile course. I feel like I have a much stronger grasp on CS after taking this course. I liked the mix of programming and other material. My one complaint would be that I had to spend time outside of class working through many more examples on trees and other algorithms such as sorting. I feel like there has to be a better way to go about introducing these topics in class more effectively.

Great course, Bloomfield is an awesome teacher. The class is super time-consuming though, it really ought to be more credits.

CS2150 definitely is a step-up class. After taking this course, I feel very confident in the low-level programming skills I'll need later in my major (CpE). In this regard, I would say that for me, CS2150 was a worthwhile class and, barring me failing the final, was a success.

Bloomfield is da bomb. Class was super hard but important, if there was a CS course that is 4 credits, it should be this one.

Bloomfield has too many students in his class. He makes a huge effort to get to know the names of every student in his lectures, but in my experience he's stretched- like butter over too much bread. He's an incredible professor, and I wish I could have learned more from him, but office hours were very crowded.

Really worthwhile class, but very difficult. Maybe provide something optional that some students who are scared for the class can work on over the break before classes start. I felt like I was really thrown into the class with the linkedlists lab.

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

This was an amazing class. Before coming into 2150 all i knew was that it was hard. I am shocked by how much I learned throughout this semester and am so thankful the way it is structured - we definitely need to be pushed at times or else we'd never successfully learn the amount we did in just a semester. While there were times I felt confused about where to start / flustered by errors, The labs were set up really well and the lectures helped clarify many concepts. The lectures were great. Definitely one of the best lecturers I had. Hashlab and Huffman lab were the hardest. I think if I prepared for Huffman lab knowing it would be more difficult (starting it earlier haha) it wouldn't have been so bad. A fair warning for it could be useful. Assembly was cool. I think those labs are excellent as they are and reveal the true structure of code compiled from c++. My favorite lab was graphs. And even though some labs were difficult, they were fun. I thought it was so cool to actually build your own data structures and have them work effectively. I am so thankful for this course. I know it has prepared me well for my summer internship and future courses. I hope Bloomfield keeps teaching it. The class is organized, tough but fair, and an excellent transition from CS 2110 to more "real" CS.

In retrospect, this was a great course and I learned a great deal. It is not as bad as I had anticipated; however, it was not easy.