CS 4810-001 **Intro to Computer Graphics** - Fall 2018

ENGR (20340)

INSTRUCTORS: **Tychonievich, Luther (lat7h)**

Respondents: 31 / Enrollment: 55

Summary: CS 4810-001 Intro to Computer Graphics - Fall 2018 (20340)

Overall Course Rating

CS-4810-001 Mean 4.61
CS-4810-001 Std Dev 0.71
CS-4810-001 Response Count 155

SEAS, 4000-level courses Mean 4.11
SEAS, 4000-level courses Std Dev 0.97
SEAS, 4000-level courses Response Count 12151

Overall Instructor Rating

INSTRUCTOR: Tychonievich, Luther
Mean 4.71
Std Dev 0.62
Response Count 217

SEAS, 4000-level courses Mean 4.28
SEAS, 4000-level courses Std Dev 0.89
SEAS, 4000-level courses Response Count 18675

~ QUESTIONS AND DETAILS ~	*~ ANSWER MATRICES ~*

1. The course addressed technically rigorous subject matter consistent with the course objectives.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.77	0.56	26 (83.87%)	3 (9.68%)	2 (6.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2431	4.34	0.82	1179 (48.50%)	967 (39.78%)	151 (6.21%)	53 (2.18%)	39 (1.60%)	42 (1.73%)

2. 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.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.48	0.77	20 (64.52%)	6 (19.35%)	5 (16.13%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2670	4.17	0.98	1168 (43.75%)	910 (34.08%)	291 (10.90%)	136 (5.09%)	57 (2.13%)	108 (4.04%)

3. There was a reasonable level of effort expected for the credit hours received.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.58	0.67	21 (67.74%)	7 (22.58%)	3 (9.68%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2434	4.20	0.94	1061 (43.59%)	1011 (41.54%)	181 (7.44%)	112 (4.60%)	60 (2.47%)	9 (0.37%)

The information in this document is private and confidential. Please handle accordingly.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

4. The homework assignments helped me learn the subject matter.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.77	0.56	26 (83.87%)	3 (9.68%)	2 (6.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2431	4.10	0.96	876 (36.03%)	876 (36.03%)	272 (11.19%)	108 (4.44%)	53 (2.18%)	246 (10.12%)

5. The textbook increased my understanding of the material.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	3.83	1.17	2 (6.45%)	2 (6.45%)	1 (3.23%)	1 (3.23%)	0 (0.00%)	25 (80.65%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2427	3.75	1.08	309 (12.73%)	354 (14.59%)	284 (11.70%)	75 (3.09%)	47 (1.94%)	1358 (55.95%)

6. The course material was well organized and developed.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.42	0.85	19 (61.29%)	7 (22.58%)	4 (12.90%)	1 (3.23%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2668	4.03	1.01	983 (36.84%)	1005 (37.67%)	362 (13.57%)	165 (6.18%)	71 (2.66%)	82 (3.07%)

7. The instructor was knowledgeable about the subject matter.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.90	0.40	29 (93.55%)	1 (3.23%)	1 (3.23%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2675	4.56	0.71	1737 (64.93%)	738 (27.59%)	122 (4.56%)	32 (1.20%)	20 (0.75%)	26 (0.97%)

8. The instructor was well prepared for class.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.74	0.58	25 (80.65%)	4 (12.90%)	2 (6.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2673	4.36	0.84	1374 (51.40%)	948 (35.47%)	183 (6.85%)	77 (2.88%)	33 (1.23%)	58 (2.17%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

9. I received adequate preparation from the prior courses in the curriculum to be successful in this course.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.45	0.81	19 (61.29%)	8 (25.81%)	3 (9.68%)	1 (3.23%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2428	3.98	1.02	826 (34.02%)	900 (37.07%)	365 (15.03%)	163 (6.71%)	64 (2.64%)	110 (4.53%)

10. The grading policy was fair.
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Question Type: Likert
~
contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.74	0.58	25 (80.65%)	4 (12.90%)	2 (6.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2662	4.18	0.94	1163 (43.69%)	956 (35.91%)	297 (11.16%)	122 (4.58%)	48 (1.80%)	76 (2.85%)

11. The instructor responded adequately to in-class questions.
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Question Type: Likert
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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.84	0.52	28 (90.32%)	1 (3.23%)	2 (6.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2664	4.41	0.76	1399 (52.52%)	992 (37.24%)	139 (5.22%)	61 (2.29%)	20 (0.75%)	53 (1.99%)

12. The instructor effectively used technology in support of the learning goals for this course.
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Question Type: Likert
~
contributed by Dean of the School of Engineering and Applied Science

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
31	4.87	0.43	28 (90.32%)	2 (6.45%)	1 (3.23%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2663	4.26	0.87	1197 (44.95%)	972 (36.50%)	268 (10.06%)	76 (2.85%)	38 (1.43%)	112 (4.21%)

13. The average number of hours per week I spent outside of class preparing for this course was:
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Question Type: Multiple Choice
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contributed by Office of the Provost

Results for CS-4810-001

Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
31	1 (3.23%)	6 (19.35%)	16 (51.61%)	3 (9.68%)	5 (16.13%)

Results for SEAS, 4000-level courses

Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
2436	146 (5.99%)	730 (29.97%)	982 (40.31%)	363 (14.90%)	215 (8.83%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

14. I learned a great deal in this course.
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Question Type: Likert
~
contributed by Office of the Provost

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
31	4.84	0.45	27 (87.10%)	3 (9.68%)	1 (3.23%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2431	4.10	1.00	995 (40.93%)	950 (39.08%)	296 (12.18%)	113 (4.65%)	77 (3.17%)

15. Overall, this was a worthwhile course.
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Question Type: Likert
~
contributed by Office of the Provost

Results for CS-4810-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
31	4.77	0.56	26 (83.87%)	3 (9.68%)	2 (6.45%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2437	4.04	1.09	1019 (41.81%)	858 (35.21%)	309 (12.68%)	141 (5.79%)	110 (4.51%)

16. The course's goals and requirements were defined and adhered to by the instructor.
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Question Type: Likert
~
contributed by Office of the Provost

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
31	4.81	0.40	25 (80.65%)	6 (19.35%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2664	4.32	0.79	1243 (46.66%)	1140 (42.79%)	198 (7.43%)	50 (1.88%)	33 (1.24%)

17. The instructor was approachable and made himself/herself available to students outside the classroom.
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Question Type: Likert
~
contributed by Office of the Provost

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
31	4.74	0.63	26 (83.87%)	2 (6.45%)	3 (9.68%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2674	4.36	0.83	1425 (53.29%)	906 (33.88%)	254 (9.50%)	58 (2.17%)	31 (1.16%)

18. Overall, the instructor was an effective teacher.
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Question Type: Likert
~
contributed by Office of the Provost

Results for CS-4810-001, Tychonievich, Luther

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
31	4.77	0.50	25 (80.65%)	5 (16.13%)	1 (3.23%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2674	4.23	0.93	1272 (47.57%)	980 (36.65%)	254 (9.50%)	112 (4.19%)	56 (2.09%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

19. Please make any overall comments or observations about this course:
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Question Type: Short Answer
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contributed by *Office of the Provost*

Results for CS-4810-001	
Total	Individual Answers
19	*See below for Individual Results*

Probably one of my favorite CS courses at UVA. I came in with no knowledge of the topic at all and learned so much from this class. The homeworks were very rewarding to do - I found it extremely satisfying to produce the required images while also learning that graphics is definitely not as easy as it seems! Each homework was quite a bit of work, but no trouble as long as students started early and took advantage of office hours - in fact, most of the heavy lifting came from setting up the basic code as opposed to the later parts. It was great that there was an optional pool of points where we got to choose what we wanted to implement. I really like that Prof. Tychonievich had office hours at a different time on each day, Mon-Thurs, as this allowed students to choose the time that best fit their schedules. In addition, the prof was also very receptive to differing student interpretations on quiz questions. Finally, my schedule got a bit crazy at the middle of the semester (interviews, other huge projects/exams, etc.) so I really appreciated that Prof. Tychonievich allowed us to turn in assignments late/resubmit assignments; in fact, I think this encouraged us to spend time fully understanding the assignments and looking over past mistakes in the code. Prof was also very responsive to Piazza posts and efficient in grading (very impressed that we received our final grades only 5 hours after the end of the final exam). Overall, awesome class, challenging yet interesting material (with SO many different applications to other fields!), extremely fair professor. I would definitely recommend this to other CS students! What a great way to finish up my last semester of CS courses!

This was honestly the best CS class I have taken while at the University. Luther is one of the best lectuerers I have ever had. He knows so much about everything and cna relate to almost any comment. I have rarely seen him phased by a question. He is very good at tying in other concepts into the class and I loved this course so much! I wish this course would be taught more often so people could have more pportunity to take it.

Quizzes were very hard but the rest of it was great. Graphics was my fun homework!

My only real gripe with this class has been the difficulty of the quizzes in the second half of the semester, where the difficulty comes not from a lack of understanding the material but rather from the quiz questions often being ambiguous or just not good questions. Other than that though, this has been a fantastic course. The material is very interesting and Professor Tychonievich is great. This has easily been my favorite CS class I've ever taken.

Super interesting class. I don't think I've ever learned so much in one course! I just wish the quizzes were more similar in difficulty, especially the ones before and after the withdraw deadline. Also I wish some of them had a little more thought put into them. Otherwise no complaints.

I really enjoyed the front half of the class. The material was very enlightening (I had no idea how complicated drawing simple things could be), and the assignments were the ideal CS assignments - challenging but reasonable, with much to learn from completing them. I also appreciate the optional credit system, since it lets you implement the things which you find most interesting. I have mixed feelings about the back half. It's nice to dip your toes into all that graphics has to offer, but I came away feeling like I didn't actually learn much from it besides a general impression that graphics is both a large and deep field. The quizzes on these sections are a bit weird too since some of them require a bit of extrapolation from what was said in class that can be ambiguous sometimes. Overall, I really enjoyed the course though. I think it's a bit sad that it's only offered once every other year.

Tychonievich is a great professor, and fantastic lecturer. The class was fun, informative, and fair. However, there were a few times where I expressed a genuine interest in the material and the graphics industry, and he seemed to slight me and my interests with his responses

Tychonievich the type of guy to excel no matter what he does.

Great class I learned a lot. I liked that you changed the direction of the lecture as you were lecturing based on what people were interested in. It made class more interesting. I didn't like the webGL part because it was just learning a specific library, but I guess one could argue that openGL is so influential you should be exposed to it in a graphics class. HW1-3 were the most interesting.

Professor Tychonievich is one of my favorite professors at UVA. He is consistently available to students and is very willing to help. When a student does not understand something he is explaining, he finds a different way to explain it and is very patient when students are slow to understand concepts. His lectures are interesting and informative, and he is very knowledgeable.

One of the most enjoyable electives I have taken at UVA. The material was well presented and the assignments were both rigid enough to learn the essentials of graphics programming while also rewarding those who wished to go out and learn more on their own. I personally feel Tychonievich did surprisingly well teaching, considering the class had no TAs and had not been taught in a couple of years.

Very interesting course.

Please make more graphics courses available :)

I have learned more about coding and spent more time doing it in this class than in any other class at UVA. Prof. Tychonievich is a fantastic teacher. This class taught me so much on a topic I had zero knowledge of going into it. He made me very excited to learn about everything we talked about. I do think that some of the quizzes were a little too difficult but I liked that we had weekly quizzes because personally, they helped me stay on track of what we were learning.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Very interesting subject taught by the most interesting professor! Coding assignments can be long, but the end products are cool proofs of concept. This course was a somewhat quick tour of various aspects of computer graphics due to time constraints, but I definitely learned a lot nonetheless. There's just so much to know! I enjoyed the class a great deal, I just wish there were more assignments on things like fluid simulations, but I understand that it may be difficult to create an assignment simple enough for us to do. A great class that deserves to be offered more often if not every year. The back half of this class being student-guided is a double edged blade. It allows students to guide their own learning in a way not often permitted. However, it also means we cover lots of material with little depth. I feel like I know a decent amount about certain topics, but no way to make that knowledge valuable (i.e., put on my resume). Many topics of graphics are too advanced to cover in the scope of an undergrad class, and the professor does well to not attempt so. This is also one of the few classes in which CS students must care about classical physics, so it is a little dreary to students from Mech or BME with more coursework in these topics. Overall, an enjoyable and satisfying class with a less interesting section towards the end. Tychonievich is a fantastic professor and makes every class enjoyable and engaging. Perfect class!