#### CS 1110-003 Introduction to Programming - Spring 2018

ENGR (20379)

INSTRUCTORS: Tychonievich, Luther (lat7h)

Respondents: 115 / Enrollment: 223

#### Summary: CS 1110-003 Introduction to Programming - Spring 2018 (20379)

#### **Overall Course Rating**

CS-1110-003 Mean 3.88 CS-1110-003 Std Dev 1.09 CS-1110-003 Response Count 557

SEAS, 1000-level courses Mean 3.88 SEAS, 1000-level courses Std Dev 1.00 SEAS, 1000-level courses Response Count 8490

#### **Overall Instructor Rating**

INSTRUCTOR: Tychonievich, Luther Mean 4.44 Std Dev 0.79 Response Count 782

SEAS, 1000-level courses Mean 4.14 SEAS, 1000-level courses Std Dev 0.88 SEAS, 1000-level courses Response Count 19434

#### ~ QUESTIONS AND DETAILS ~

#### ~ ANSWER MATRICES ~

### 1. What would you suggest we change about this course in the future?

Question Type: Short Answer

contributed by Tychonievich, Luther (lat7h)

Results for CS-1110-003, Tychonievich, Luther							
Total	Individual Answers						
100	See below for Individual Results						

Learning harder material for longer - it seems these concepts are spent less time on

Change the difficulty of the class. The class is far too difficult for a three credit intro course

I wouldn't change anything

More personal assignments to provide more practice for students Change the autograder to immediately provide feedback but have a two hour delay before the assignment can be resubmitted so that we know what parts of the code do not work and can spend the two hours fixing it rather than waiting to find out a program that we thought was correct had bugs in it Spend less time on turtle in the beginning and move to the actual material faster

Nothing I can think of.

Give more time to complete the longer out of class assignments

I wish the first exam wasn't so hard, it really ruined my grade and my confidence in my coding

Having powerpoint to introduce new concepts would be helpful

Nothing--I think it is being currently taught very well. I started with no experience in CS, and I am now confident in my abilities to expand my CS knowledge due to the strong foundation this class helped me form.

Nothing. Perfect course!

Nothing!

I would like it to made clear that this course DOES expect some CS lingo background on part of the students. I came in with actually 0 knowledge and I found the course very challenging - wish I had known 1112 was an option and i wouldave switched over. itâd also be nice if tych had a clear structure to what heâs teaching. I very much feel overwhelmed with information and often feel like iâm getting nothing from lectures.

Have more resources available to practice for exams.

CS1110 was a class I enjoyed very much, coming in I had very little experience with coding, especially python. It gave a very thorough and practical understanding of the language and taught what coding logic and thinking should look like. I will take many of these skills further, in other courses at uva, the workplace, and even life at home. However, I did have some complaints, specifically with the homework. First I thought the two hour waiting period was very frustrating, especially as assignments grew more difficult and the test cases grew more numerous, I feel a 10-15 minute wait time would be more practical and considerate of students time. Next, I felt the fact that the homework test cases were vague and didn't tell you what your code did wrong was also unfair, it made fixing your code very difficult as you did not know what to change or alter. Statement like 'comma test' don't necessarily point out how or where your codes failed and make it very frustrating to go back and change 2 hours later. I feel like the vague test cases did not help build my debugging skill as much as knowing what the error was so I could systematically check and alter code until it was fixed.

More projects and the tests should be on computers.

I HATE how the professor taught so slow and easy in the beginning, but accelerated so much after the withdraw deadline.

#### ~ ANSWER MATRICES ~

Make the labs not mandatory and be more flexible about the absence policy, make the assignments less time consuming and easier, instead of showing random code examples during class use powepoints

More practice of actual coding in class.

More basic examples in class rather than simply experimental challenges.

not having labs the week of exams

Fewer assignments. maybe just one a week, due at the same time every week

Nothing

Nothing

Nothing

Nothing

probably the preparation for tests. While I feel like I learned a lot throughout the PA's I don't feel like my doing well on them really correlated with how well I did on the test. I wish there was a better way to prepare for them but I don't think I really got that from this class

Maybe the class shouldn't just get absurdly hard halfway through. The assignments create a ton of extra work, and it would be nice if they were targeted at basic concepts before going straight to hard stuff

Impressed with the organized structure of the course. Sorry I really don't have any helpful feedback.

Don't!

It seems like some of the lab sections could have been guided a little bit more by the TAs because getting started was sometimes confusing even with the assignment website up.

Nothing, I think it was good.

No comment

N/A

Perhaps the class could jump into actual programming early on.

nothing

Nothing, I found the structure and the content really rewarding.

more basic explanation

2 hours is too long to wait for feedback

The practice tests were much easier than the actual tests.

I think smaller classes would benefit the students.

Easier tests, clearer lesson plans for the day

THE TWO HOUR DELAY ON ARCHIMEDES IS FRUSTRATING AND INEFFICIENT. I think it would be more beneficial to get a response of how many test cases your code passed asap, but then maybe have a delay in the next time you can submit.

I overall enjoyed the class. I would love it if you changed the feedback time to one hour for those of us who work on it later at night just so everyone can get more sleep.

The homework assignments are extremely difficult. I took this class so that I would begin to learn the basics about Python and instead the homeworks took away from that knowledge. I am not a CS major or will continue with CS classes and this was the only course available to learn this type of programming. Overall, I am very disappointed

Some of the assignments are way too difficult or there are too many per week. On gradebook almost every single person I talked to just gave up because we didn't have enough time to complete it and had no idea how to do it. The problem with that one was that the math was difficult to understand. I feel like the most worthwhile assignments were ones like credit card where I knew what needed to be done, just not how to do it. That one was actually fun because I wrote out the steps that needed to be done and then I had to play around with python and do research to find out how to do all of these list methods and I learned a lot about how to manipulate lists while doing it.

Give tests less weight.

I think being allowed to use computers for coding on exams would be a better measure of knowledge

#### ~ ANSWER MATRICES ~

Focus topics on those relative to engineers maybe, even though gamebox is fun

Make exams less ambiguous (more specifically, the final exam and some questions in it).

Explain the background behind topics more so students better understand the use of them.

Spread out difficult assignments throughout the semester. The beginning month of the class seemed like a cake walk in comparison to the end of semester mad dash.

More practice exercises similar to what will appear on tests

The course is too difficult for an Intro level course... especially since itâs a required course for many non-CS majors.

n/a

more application of code in real life, how to write code to make efficient other works

Smaller lab sections.

four credits

More TA explanation of in class concepts

I don't think anything needs to be changed, but collaborative problems in class could be beneficial.

Nothing, everything was great. The lecturing was done very well, the homework was relevant, and the tests assessed our knowledge well.

cut out turtle it was useless

I feel like I definitely would have done better on the exams if they weren't written. Maybe working to create an online portal for taking exams?

I would have liked to focus on the structure of the code that goes around regular expressions instead of focusing mainly on building the regular expressions themselves

I don't find labs very helpful, I would prefer maybe a review session in place of lab where students could ask questions about topics they covered in lecture that week.

I would suggest realizing manageable goals for the in class project because at times the amount expected to complete while not required to finish it made me feel like I was missing concepts because I had spent alot of time on earlier portions of the assignment and didn't get to the heavier stuff that might've helped me more.

Expose students the level of difficulty on exams while learning. Test students on subjects that were well covered in class.

Change the test to actually being on the computer. Get rid of questions such as what would print out from this program that no one would ever write unless they ran their hand randomly across the keyboard

none, good as is

Present the material for labs and PA in lecture before the assignments are due.

None

Make the tests more similar to the content we learn in class. or AT LEAST give students realistic expectations for exam difficulty level trough practical practice exams

Nothing, it served the purpose it was designed to

I, along with other students, did not have enough time to complete the first two midterm exams.

Do more in class examples so we code during class as well, and go slower because its hard to keep up.

Towards the end of the year the assignments got tougher and longer, but we still only had a day or two to complete them. Along with other work, this got difficult, so more time for assignments would be a suggestion

Nothing...I like it

Group project. MY partner was slow and I did all the work.

The format of the instructions for the homework.

Personally I would have liked to move faster through the material at the beginning of the class since it was pretty basic.

### ~ QUESTIONS AND DETAILS ~ ~ ANSWER MATRICES ~ More homework assignments. I would have liked the lectures to be a little more structured/ organized, such as maybe with powerpoints to guide the lectures more Exams were incredibly stressful and intense. Maybe make them more doable for those who have never coded or taken any CS-related evaluations. just make sure beginners have an easier transition I think the 1111 notes work better than the 1110 notes n/a The class was run very smoothly. n/a idk More time in between assignments more focussed on applications of CS in real life/what a job could be like Nothing I thought was well taught I think that this CS class is good at being very broad - some of the instructions for some of the assignments were somewhat vague though, and I really appreciated when assignments were explained in class the class period before they were due. Make the last several assignments more spread out, because they take more time. nothing nothing nothing The first couple labs were tricky and I felt worried about my ability to do well in the class. I did well anyway, but nonetheless the first couple weeks I felt uneasy about the course. Was a lot of programming assignments that were overly difficult. Needed to go to office hours regularly The assignments do not relate to class well. The assignments are much harder and complicated than anything we do in class or lab. This was a very tough course for an introduction class

The grading system, I understand the TA's are a good service to use but your grade is entirely dependent on your TA, and if you get a stricter one you get lower grades (classmates who got points off if they're doc strings weren't descriptive enough vs. those who got full credit even if they had none, or more points taken off of one mistake, etc.)

#### 2. How would you rate the availability of TAs?

Question Type: Likert contributed by Tychonievich, Luther (lat7h)

results for GG 1110 000, Tyonomevion, Edition									
Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)		
113	3.43	0.69	61 (53.98%)	41 (36.28%)	10 (8.85%)	1 (0.88%)	0 (0.00%)		

Results for SEAS, 1000-level courses									
Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)		
233	3.45	0.70	129 (55.36%)	82 (35.19%)	19 (8.15%)	3 (1.29%)	0 (0.00%)		

#### 3. What lecture/topic(s) in this class "did not work" or were not seen as useful in the long run?

Question Type: Short Answer contributed by Tychonievich, Luther (lat7h)

Results for CS-1110-003, Tychonievich, Luther							
Total	Individual Answers						
95	See below for Individual Results						

It was well taught, maybe giving more short problems in class for us to figure out so we can test if we actually understand the stuff being taught.

In the long run I am not sure how useful the turtle lectures and lab were.

#### ~ ANSWER MATRICES ~

all seemed relevant enough - just wish they were presented differently... when someone teaches it to me in all kinda of order i can never digest it all thouroghly - there was a lot of self teaching

The recent one of finding specific words in the papers given

n/a - All either enjoyable or applicable

I think all the topics were interesting.

the topics were useful, in discussion the 2nd part of robot seems useless bc no one ends up getting it (and the TA's say this as well).

All seemed pretty useful

Turtle

Turtle

Turtle provided a good introduction, but didn't seem to be worth the time we spent on it early on

All the lectures worked because Tychonievich did a great job

I dont see myself using coding in my field

none

none

Dictionaries

None that I can think of.

pygame and regular expressions

Decoding was difficult

I did not like learning about the turtle program and the truthiness/ weird cases.

regular expressions

regular expressions

i dont know

too deep content

regex

regex

Game

N/A

The drawing of classes were not very useful and were confusing.

neutral

I don't think I can actually think of one that wasn't useful!

I understand why we learned regular expressions but they were not taught very well and are very confusing to write correctly.

Gamebox and turtle were very useless and confusing

Turtle, psuedocode

I found for loops hard for a little while in lecture.

**GAMEBOX** 

Regex was cool, but I was talking to a Second-Year CS major and he apparently has never used Regex outside of CS 111x.

trutle

#### ~ ANSWER MATRICES ~

I'm not really sure ing that I haven't taken any of the higher level CS classes yet. That said I think that everything that we covered seemed pretty useful in my opinion. One thing that really stuck out as incredibly frustrating was a programming assignment where we had to write functions for split I think it was str\_redux. I just felt like that assignment was a whole level above all the other assignments for intro and it just seemed really out of place.

writing to files

Turtle, anything dealing with dictionaries, PyGame and Gamebox

The last few topics were beyond the scope of an introductory class

Gamebox

Learning all the intricacies of strings wasn't as helpful as I thought it would be.

All topics built on each other. I find myself using topics from the beginning of the course, in conjunction with more recent topics.

lalal

Can't think of anything

turtle

turtle

turtle

Gamebox explanation was helpful for the final game

Gamebox. I understand that it taught us concepts that were necessary to complete the final project, but overall I will not be able to use this in the future, as it is not an actual part of python.

I feel like reading files with regexs won't necessarily be useful because of the built in function "find" on a computer.

Game is actually boring and cumbersome for students with congested schedule. I think more practical (like repetition, etc.) is much more interesting, and challenging.

All of the topics can be deemed as useful, however the regular expression session was very confusing and I still don't feel like I have a full understanding of them even after the labs and homework.

RegEx did not seem particularly valuable

None

None

None

None

None

None

Trueish and Falsish

debugging

file writing

I enjoyed learning about making games in the end of the semester a lot, however in practice I will not use gamebox.py anywhere else. I understand it was a lesson in game logic and a step into the more advanced realms of coding, and be it it was very fun. I think the time would've been more useful spent doing more with regex and website information gathering, skills that I can immediately see applied to practical use.

Everything worked

Regular expressions

None come to mind

It seemed useful for basic coding and understanding. I feel like I can do the most important methods asked of me or find resources to help me in my job.

None.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	The game assignment is no doubt fun and indeed a well-structured compilation of topics covered in the course, but it seemed very reliant upon the gamebox functions, which we were not thoroughly introduced to. This may be inevitable however given the complexity of gamebox and the students level of programming sophistication.
	All topics were useful
	Build computer games
	gamebox, pygame
	n/a
	The final topic of writing the file.
	everything seemed pretty useful
	pygame and gamebox
	Turtle
	I guess none
	I think regular expressions are something that will be useful for me in the long run, but the lecture left a bit to be desired as I still had some trouble designing them.
	The guest lecture on loops was not very helpful.
	The beginning lectures about pseudo-code. They were redundant and could have been handled in one lecture
	The entire class on breaking down the hair-washing process was an entire waste of time.
	nothing
	GAME
	Regex and compiling tools didn't really seem to apply to the larger projects (game, final)
	gamebox
	Regex
	Regex
4 337 : 1 4 : 4 : 4 : 4 : 4 : 4	
4. Which topic/lecture in this class do you think you will find the most useful	Results for CS-1110-003, Tychonievich, Luther  Total Individual Answers
in the future?	102 See below for Individual Results
Question Type: Short Answer	
contributed by Tychonievich, Luther (lat7h)	
	generally being able to call a file, tell python to do stuff to it, and return an answer
	Reading webpages
	basic Python concepts and maybe regular expression
	Accessing data on websites using urllib.request.urlopen
	Sorting data with the CSV files
	Write loops was a very helpful thing to learn  Lists
	I am pretty certain that I will utilize what we learned about reading and writing files in the future, especially once I start doing research.

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~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	All except game.
	Everything else
	IDK
	regular expressions
	regex
	regex
	N/A
	N/A
	N/A
	for and while loops
	for and while loops
	Functions, thinking like a programmer
	Opening a website and using loops.
	Importing and looking at files, dicts, string methods
	the topics learned itself seemed useful but i wouldnât know
	opening and finding info from urls
	Pygame
	Reading .csv files and using data from the internet, making different data structures such as dicts, lists, and tuples, using loops to process large amounts of data, regexs for finding something specific in any sort of readable file, and a great many other things that would generally expedite tasks that would take a longer time than needed.
	sort
	I think that a topic that might come in handy in the future for me is designing functions to work for you. However, the most useful skill I gained from intro to programming was my problem solving skills.
	I think understanding how computers work and think is the most useful skill I have gained.
	Regular Expressions
	Reading files from the internet
	Thinking patterns
	Probably regex
	loop
	None
	Regex and taking information from a file/website
	Pretty much all of the material.
	I think regular expressions will be the most useful in the future.
	Regular expressions
	I think most of what we learned will be useful since we got the basics of writing programs. We can use these in the future for a variety of problems.
	just learning the fundamentals of python is really important.
	n/a
	Functions and dictionaries
	url search
	Gamebox, loops

#### ~ ANSWER MATRICES ~

loops, regular expressions

I think the methods of opening and analyzing documents and urls will be helpful in the future.

gamebox

Regex

Virtually all of them help with establishing a student's understanding of coding and computer science.

Reading files

I think the majority of this stuff will be extremely helpful, as coding is becoming a big part of the world

Almost all of it

**Building functions** 

As mentioned, I think all of the lectures build on one another, all contributing to forming a strong foundation of CS knowledge.

The actual python coding knowledge and skills are the most useful.

Regular expressions

All

opening files/URLs

How to create functions.

Reading files, for loops

I like the games that we created and think it'll be fun to make more in the future, and the basics of python code will help with understanding different types of code

opening files and using them

none

Reading CSVs and files from the web, and using regular expressions when doing that

just learning how to program your mind

Extracting data from files and websites

CSV

As Prof. Tychonievich alluded to in this lecture, opening files for reading and writing seemed to be the most broad application of CS and I'll probably find that really useful. Also, generally speaking, taking this class has allowed me to think differently (I hesitate to say more logically) and this is always helpful.

I don't think I can pick just one. If statements, for and while loops, importing websites and files, and regular expressions seem like the most important things I have learned this year.

Reading and organizing information from websites

accessing web data

looping (for, while) reading CSV file RegEx

importing URLS, the logical reasoning/way of thinking

gamebox

Regex and web/data information gathering/analysis

reading files from the internet

Reading and writing files, including from urls

function writing

regular expressions and gamebox

LOOPS

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~					
	dict					
	Importing and using data obtained from .cvs files or html websites.					
	I don't intend on continuing with CS in the future					
	regular expressions and general python syntax					
	overall use of Python/basics of how to code					
	loops					
	loops					
	Regex and the importing/web stuff. I am going to work with a lot of data in the future and it has he me understand how to get, collect, and use data.	∍lped				
	data mining methods and cleaning data. Since I'm a commerce major I think that this is the most applied thing that I will be able to use.					
	The general boolean expressions.					
	urllib.request related content					
	variables, lists					
	turtle essentially teaches everything					
	general coding with reading data from websites and CSV files					
	The most useful topic for my future would be using dictionaries.					
	I think using regular expression will be helpful in the future					
	explain more basic stuff					
	I liked the regular expressions and the url reading and compiling.					
	loops, using urls, gamebox					
	probably just basic functions					
	reading urls and opening excel files					
5. Which topic/lecture in this course was	Results for CS-1110-003, Tychonievich, Luther					
your favorite and why?	Total Individual Answers					
Question Type: Short Answer	97 See below for Individual Results					
contributed by Tychonievich, Luther (lat7h)						
	Game project, was something different than what I am used to. It is fun designing a game					
	For loops, because it helped make a lot of things easier.					
	My favorite topic was loops.					
	Though I don't think i have completely mastered regular expressions, I think they are my favorite because they seem to have very applicable uses in real life.	topic				
	Learning how to make games because I was able to express creative freedom in comparison to cassignments.	other				
	i really liked regular expressions because they were the topic that was both challenging enough to keep my interested, but easy enough to understand that i could work through and debug them myself					
	loops because they are useful in a wide variety of contexts, and I found figuring out how to impler them fun	ment				
	Building functions, they can do anything					
	end of year questions lecture					
	introduction to gamebox					
	game stuff, it was very interesting / fun and he listened to all our questions					

#### ~ ANSWER MATRICES ~

Designing games was my favorite topic as seeing my code executed in graphics was really satisfying and there was much more of a creative aspect than most of the projects.

Lectures about practical things like calculating the temperatures or finding information from online

N/A

games, because they were a tangible expression of code.

gamebox, it was really interesting

The game project because I am very interested in video gaming and how the games are created.

Assignments like Lou's list and salary were my favorite because I could see the benefit in learning how to perform tasks like that in real world settings as well as they were very gratifying to finally complete.

gamebox, because it was an assignment were you are creating something from scratch and the final product is whatever you want it to be

Pygame

Game because challenging

I liked PA's that had practical applications. For example, the Lou's List PA was actually helpful in my real life because I used it to help me narrow down classes

Being able to use anything on the internet to build code was really interesting, so reading and writing files was definitely the topic that was my favorite. Also, even though I said it wasn't the most useful topic, Regex was really fun as well.

Gamebox because I have found the final project to be a lot of fun

Regular expressions because I could see the real world applications directly.

probably the gamebox stuff because it allowed you create a product

regex! fun, intuitive, useful

loops

RegEx, it is fairly straightforward and quite satisfying when done correctly

I really liked while loops until I understood for loops more, then those were more interesting, because the program saves a lot of time and work. If statements, although sometimes bothersome, were also nice, especially once I figured out how exactly to code what I needed to.

The first half of the semester, very reasonably paced and introductory and interesting

My favorite is the repetition and the list/dict.

LOOPS, the professor teaching CS1111 (Upso...) was amazing.

Regex... more of a problem solving activity rather than an actual CS application.

Regular expressions

Lists

Learning how to code pygame was amazing because there was a lot of effort needed, but unlike the other assignments, this is one that has a reward for the completion and was very fun to do.

i really liked gamebox because it applied a lot of the stuff we learned throughout the year in a fun way

for and while loops, they are extremely useful and flexible to use in a lot of different scenarios

n/a

reading csv file and extracting info because it's actually useful

Writing in a file. Seemed useful for work outside CS.

Gamebox because there was a finished product and I could envision what I wanted to appear and then code it

loops- easiest but also really useful

gamebox

#### ~ ANSWER MATRICES ~

#### gamebox

Dicts because they store a lot of information and can be manipulated

I liked using regex just because of how powerful it is to use.

creating games - fun to see what you can do with code & how to use previously learned material in out-of-the-box ways

the list lectures

I enjoyed learning about importing URLs to python because I did not know that was even possible.

regular expression because it is like a puzzle to piece together

second-to-last lecture, where we got to learn more about prof. tychoneivich

How to create functions because it was incorporated into everything and was logical.

none

Gambol-- super cool to write our own game

regex was my favorite because of how powerful it is.

Gamebox because games are the most fun end product of code that we made

CSV

Pygame & gamebox. It enables the student to be creative and learn to use the code properly

Loops (both for and while)

Game building for sure.

Game

pygame because it was the first time i really created something that had an interesting outcome

regular expressions because it was like solving a puzzle

I really enjoyed the problem solving aspect of this course overall

I really enjoyed the loops because they were interesting to think about

I enjoyed the game project.

I actually found gamebox to be very interesting to work with and enjoyed working on the project

I enjoyed the url reading part of the course because I could see myself using this skill in the future.

I really like the game related topics because they are the most fun to actually run.

I liked making lists because it organized a jumble of data.

I enjoyed creating games. This was interesting and enjoyable and tapped into the creative and imaginative parts of me.

string methods were challenging so I enjoyed them. I really LOVED regular expressions as well.

My favorite topic was the gamebox. It allowed me to explore the creative side of Python.

Opening, reading, and decoding internet files because the internet is an incredible resource and so much can be done now with the toolbox we have to use its plethora of information right at our fingertips.

gamebox, because it was really validating to create your own game the way you wanted it.

regular expressions, made the most sense to me

games, it was fun

No. I HATE THIS CLASS.

gamebox because I got to code something myself versus coding for an assignment that I did not have much interest in.

I cant really decide. I liked Professor Tychonyveich the most.

#### ~ ANSWER MATRICES ~

Regular expressions because it was like a puzzle - difficult to figure out but was definitely able to be understood by most students

regex for it's hard

Gamebox, enjoyable

dict, just thought it was interesting in how it worked

Drawing with turtle at the beginning of the semester.

gamebox, it was fun making a game through trial and error.

loops and regex were interesting and useful, and gamebox was fun and creative

Learning about reading/ writing files was very interesting and useful!

I enjoyed gamebox, just because it was a unique way to apply skills learned earlier in the course.

When we started to learn about reading and organizing data, I started to actually feel like I could produce useful programs, and it inspired me to declare CS as my major. I also thoroughly enjoyed applying everything I had learned into making games near the end of the semester.

All, computer science is really intriguing and all the concepts seem intuitive.

Regular expressions seemed like a very useful topic that would be used later on even outside of programming focuses.

I liked debugging.

Reading webpages, and loops. so interesting and taught so well.

gamebox, very interesting

# 6. How accurate is this statement for you: After taking this class, I personally have a better understanding of fundamental concepts in Computer Science.

Question Type: Likert

contributed by Tychonievich, Luther (lat7h)

Results for CS-1110-003, Tychonievich, Luther									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)		
112	4.51	0.71	66 (58.93%)	41 (36.61%)	2 (1.79%)	2 (1.79%)	1 (0.89%)		

Results for SEAS, 1000-level courses									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)		
229	4.59	0.63	146 (63.76%)	75 (32.75%)	5 (2.18%)	2 (0.87%)	1 (0.44%)		

# 7. How accurate is this statement for you: After taking this class, I have a better appreciation for Computer Science.

Question Type: Likert

contributed by Tychonievich, Luther (lat7h)

Results for CS-1110-003, Tychonievich, Luther								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	
112	4.29	0.98	61 (54.46%)	34 (30.36%)	9 (8.04%)	5 (4.46%)	3 (2.68%)	

Results for SEAS, 1000-level courses									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)		
231	4.41	0.86	135 (58.44%)	70 (30.30%)	15 (6.49%)	8 (3.46%)	3 (1.30%)		

#### ~ ANSWER MATRICES ~

## 8. How accurate is this statement for you: After taking this class, I am more likely to major or minor in CS.

Question Type: Likert

contributed by Tychonievich, Luther (lat7h)

Results for CS-1110-003, Tychonievich, Luther									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)		
112	3.10	1.39	20 (17.86%)	31 (27.68%)	23 (20.54%)	16 (14.29%)	22 (19.64%)		

Results for \$	Results for SEAS, 1000-level courses											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Strongly Disagree (1)						
231	3.25	1.36	52 (22.51%)	58 (25.11%)	51 (22.08%)	36 (15.58%)	34 (14.72%)					

## 9. 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-1110-003										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
111	4.18	0.78	37 (33.33%)	63 (56.76%)	7 (6.31%)	2 (1.80%)	2 (1.80%)	0 (0.00%)		

Results for	Results for SEAS, 1000-level courses										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)			
1697	4.05	0.86	511 (30.11%)	881 (51.92%)	201 (11.84%)	74 (4.36%)	26 (1.53%)	4 (0.24%)			

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

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	CS-1110-0	03, Tychoni	evich, Luthe	er				
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
112	4.25	0.92	54 (48.21%)	40 (35.71%)	12 (10.71%)	4 (3.57%)	2 (1.79%)	0 (0.00%)

Results for	Results for SEAS, 1000-level courses											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)				
2781	3.92	1.02	825 (29.67%)	1071 (38.51%)	399 (14.35%)	215 (7.73%)	71 (2.55%)	200 (7.19%)				

## 11. 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-1110-003												
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)				
111	4.03	1.12	46 (41.44%)	43 (38.74%)	5 (4.50%)	13 (11.71%)	4 (3.60%)	0 (0.00%)				

Results for SEAS, 1000-level courses											
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)			
1699	4.06	0.89	549 (32.31%)	859 (50.56%)	167 (9.83%)	88 (5.18%)	32 (1.88%)	4 (0.24%)			

## 12. 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-1110-003												
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)				
111	4.30	0.87	53 (47.75%)	45 (40 54%)	9 (8.11%)	1 (0.90%)	3 (2.70%)	0 (0.00%)				

Results for SEAS, 1000-level courses										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
1701	3.91	1.03	535 (31.45%)	668 (39.27%)	273 (16.05%)	135 (7.94%)	47 (2.76%)	43 (2.53%)		

Not

Applicable

(NA)

(6.25%)

Not

Applicable

(NA)

708

(41.67%)

Not

Applicable

(NA)

(0.00%)

Not Applicable

(NA)

196

(7.07%)

Not

Applicable

(NA)

(0.00%)

Not

Applicable

(NA)

186

(6.69%)

Not

Applicable

(NA)

(0.00%)

Applicable (NA)

203

(7.30%)

Not

Applicable

(NA)

39

(34.82%)

Not

#### ~ QUESTIONS AND DETAILS ~ ~ ANSWER MATRICES ~ 13. The textbook increased my Results for CS-1110-003 understanding of the material. Agree (4) Total Mean Std Dev Strongly Neutral Disagree Strongly Agree (5) (2)Disagree (3)Question Type: Likert (1) 112 3.26 1.07 35 37 11 contributed by Dean of the School of Engineering (9.82%)(31.25%) (33.04%) (12.50%)(7.14%)and Applied Science Results for SEAS, 1000-level courses Disagree (2) Std Dev Strongly Agree (4) Total Mean Neutral Strongly Disagree (1) Agree (5) (3) 1699 163 272 357 71 3.33 1.11 128 (21.01%) (16.01%)(4.18%)(9.59%)(7.53%)14. The course material was well Results for CS-1110-003, Tychonievich, Luther organized and developed. Total Mean Std Dev Strongly Agree (4) Neutral Disagree Strongly Agree (5) Disagree (1) (3) (2)Question Type: Likert 111 4.28 0.91 contributed by Dean of the School of Engineering (47.75%)(40.54%)(6.31%)(2.70%)(2.70%)and Applied Science Results for SEAS, 1000-level courses Strongly Agree (5) Disagree (2) Std Dev Strongly Disagree Total Mean Agree (4) Neutral (3)(1) 2774 0.97 780 345 3.96 1217 159 77 (28.12%) (43.87%)(12.44%)(5.73%)(2.78%)15. The instructor was knowledgeable Results for CS-1110-003, Tychonievich, Luther about the subject matter. Total Mean Std Dev Strongly Agree (4) Neutral Disagree (2) Strongly Disagree (1) Agree (5) (3) Question Type: Likert 4.78 112 0.42 87 25 0 0 0 contributed by Dean of the School of Engineering (22.32%) (0.00%)(77.68%) (0.00%)(0.00%)and Applied Science Results for SEAS, 1000-level courses Agree (4) Std Dev Total Mean Strongly Neutral Disagree Strongly Agree (5) (3) Disagree (1) 2781 0.73 1274 1095 176 (45.81%) (39.37%)(6.33%)(1.19%)(0.61%)16. The instructor was well prepared Results for CS-1110-003, Tychonievich, Luther for class. Strongly Std Dev Disagree (2) Strongly Mean Total Agree (4) Neutral Disagree (1) Agree (5) (3) Question Type: Likert 4.68 0.49 76 n 111 34 contributed by Dean of the School of Engineering (68.47%) (30.63%) (0.90%)(0.00%)(0.00%)and Applied Science Results for SEAS, 1000-level courses Disagree (2) Agree (4) Total Mean Std Dev Strongly Neutral Strongly Agree (5) Disagree (1) (3) 2779 4.31 0.77 1178 1124 207 41 (40.45%)(42.39%)(7.45%)(1.48%)(0.94%)17. I received adequate preparation Results for CS-1110-003 from the prior courses in the Agree (4) Std Dev Total Mean Strongly Neutral Disagree Strongly curriculum to be successful in this Agree (3) (2)Disagree (5) (1)course. 112 3.48 1.28 20 17 22 6 8

			Agree (5)	(4)	(3)	(2)	Disagree (1)	Applicable (NA)
1694	3.76	1.04	291 (17.18%)	417 (24.62%)	267 (15.76%)	83 (4.90%)	39 (2.30%)	597 (35.24%)

(15.18%)

Agree

(19.64%)

Neutral

(5.36%)

Disagree

(7.14%)

Strongly

(17.86%)

Strongly

Std Dev

Results for SEAS, 1000-level courses

Mean

Total

Question Type: Likert

contributed by Dean of the School of Engineering

and Applied Science

#### ~ ANSWER MATRICES ~

#### 18. The grading policy was fair.

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

Results for	Results for CS-1110-003, Tychonievich, Luther												
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)					
112	4.10	0.99	43 (38.39%)	50 (44.64%)	10 (8.93%)	5 (4.46%)	4 (3.57%)	0 (0.00%)					

Results for	Results for SEAS, 1000-level courses										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)			
2773	4.10	0.88	838 (30.22%)	1141 (41.15%)	270 (9.74%)	101 (3.64%)	40 (1.44%)	383 (13.81%)			

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

Question Type: Likert

contributed by Dean of the School of Engineering and Applied Science

R	Results for CS-1110-003, Tychonievich, Luther										
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
	112	4.34	0.74	51 (45.54%)	51 (45.54%)	6 (5.36%)	2 (1.79%)	1 (0.89%)	1 (0.89%)		

Results for	Results for SEAS, 1000-level courses								
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)	
2775	4.27	0.76	1062 (38.27%)	1193 (42.99%)	230 (8.29%)	41 (1.48%)	22 (0.79%)	227 (8.18%)	

## 20. 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-1110-003, Tychonievich, Luther										
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
112	4.64	0.60	76 (67.86%)	34 (30.36%)	1 (0.89%)	0 (0.00%)	1 (0.89%)	0 (0.00%)		

Results for	Results for SEAS, 1000-level courses									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)		
2771	4.07	0.89	886 (31.97%)	1134 (40.92%)	375 (13.53%)	117 (4.22%)	31 (1.12%)	228 (8.23%)		

# 21. 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-1	Results for CS-1110-003									
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)					
112	,		49 (43.75%)	15 (13.39%)	7 (6.25%)					

Results for SEAS, 1000-level courses								
Total	Less than 1	1 - 3	4 - 6	7 - 9	10 or more			
	(NA)	(NA)	(NA)	(NA)	(NA)			
1703 268		827	464	106	38			
(15.74%)		(48.56%)	(27.25%)	(6.22%)	(2.23%)			

#### 22. I learned a great deal in this course.

Question Type: Likert

contributed by Office of the Provost

Results for (	CS-1110-003						
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
112	4.40	0.68	54 (48.21%)	51 (45.54%)	6 (5.36%)	0 (0.00%)	1 (0.89%)

Results for SEAS, 1000-level courses									
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)		
1700	3.96	1.01	570 (33.53%)	705 (41.47%)	258 (15.18%)	121 (7.12%)	46 (2.71%)		

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~									
23. Overall, this was a worthwhile	Results for	CS-1110-003								
<b>course.</b> Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
contributed by Office of the Provost	111	4.26	0.99	57 (51.35%)	38 (34.23%)	7 (6.31%)	6 (5.41%)	3 (2.70%)		
	Results for	SEAS, 1000-	level courses							
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
	1697	3.83	1.14	567 (33.41%)	597 (35.18%)	282 (16.62%)	174 (10.25%)	77 (4.54%)		
I. The course's goals and requirements	Results for	CS-1110-003	, Tychonievic	h, Luther						
were defined and adhered to by the instructor.	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
Question Type: Likert  contributed by Office of the Provost	111	4.44	0.71	61 (54.95%)	40 (36.04%)	8 (7.21%)	2 (1.80%)	0 (0.00%)		
	Results for	SEAS, 1000-	level courses							
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
	2772	4.13	0.85	991 (35.75%)	1313 (47.37%)	362 (13.06%)	50 (1.80%)	56 (2.02%)		
25. The instructor was approachable	Results for	CS-1110-003	, Tychonievic	h, Luther						
and made himself/herself available to students outside the classroom.	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
Question Type: Likert  contributed by Office of the Provost	111	4.05	0.97	41 (36.94%)	45 (40.54%)	16 (14.41%)	7 (6.31%)	2 (1.80%		
	Results for	SEAS, 1000-	level courses							
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
	2771	4.06	0.88	938 (33.85%)	1227 (44.28%)	471 (17.00%)	93 (3.36%)	42 (1.52%)		
26. Overall, the instructor was an	Results for	CS-1110-003	, Tychonievic	h, Luther						
effective teacher.  Question Type: Likert	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
contributed by Office of the Provost	112	4.44	0.73	61 (54.46%)	42 (37.50%)	7 (6.25%)	1 (0.89%)	1 (0.89%)		
	Results for	SEAS, 1000-	level courses							
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagre (1)		
	2779	4.03	0.95	959 (34.51%)	1190 (42.82%)	438 (15.76%)	126 (4.53%)	66 (2.37%)		
7. Please make any overall comments	Results for	CS-1 <u>110-003</u>								
or observations about this course:	Total				ndividual Ans					
Question Type: Short Answer	59			See be	low for Individ	dual Results				
	great cours	se!								
	Tychonievi	ch is the cool	est professor	l've had at U'	/A thus far! H	le's a great te	acher and ev	en more		

#### ~ ANSWER MATRICES ~

since the format of our tests are SO SO different from what we practice with assignments and in lab, there NEEDS to be practice exams that actually correspond to the tests. The practice exams were a waste of time considering how much more difficult our actual exams ware. Also the TAs were not always willing to help during lab

Fantastic course. Just delete the game section. It's the only flaw.

This class is not as easy as some people made it sound like.

I liked this class a lot more than I expected to. I thought the information was interesting and fun, and Tychonievich was a very enthusiastic and effective teacher.

It is great we worked in groups in labs, but it would be really helpful to see other solutions after completing the lab as well for comparison and more practice.

none

Even though I was not as successful as I would have liked to be in this class, I felt as though the information was effectively and well taught in a way that made it relatively easy to understand.

I really enjoyed this class, it was my first experience with programming and Professor Tychonievich made the topics interesting and accessible.

Professor Tychonievich has been the best professor I have had so far at UVA (one year). He is dynamic and very knowledgeable about the subject matter. He cares deeply about teaching effectively, and he has spent a lot of time thinking about the best way to teach the topics. He is great at teaching CS, and I have loved having him as a teacher.

great class

fun but very hard material

I found the class to be very interesting as someone who never had experience prior to this class, but the subject itself is not for me. The class itself was taught well and fine, the content just didn't click with me.

great course 10/10 would recommend

This class has changed my perspective on CS for the better! Wonderful professor, fun class.

No comment

Tychonievich is one of my favorite teachers and one of the best ive had so far at uva

I found the way Professor Tychonievich answered questions to be rather condescending. He would just say "I don't understand what you mean" and then move on without trying to get to the bottom of it. I know he is aware of this, but I think he is so skilled and used to coding that it becomes hard to be empathetic to a beginning learner, but this is something I think he could work on to create a more positive learning environment for students.

N/A

N/A

This course has definitely proven to be more challenging than anyone anticipated. It took a while for me to fully connect the information used in class to the homework assignments, making larger assessments very challenging.

I learned a good amount throughout the course.

Excellent professor.

The assignments were very difficult because the instructions were not clear and confused me greatly. If the assignment instructions had been more straightforward and understandable the class would have been more effective.

The number of assignments at end of semester and the relative immediacy of the final exam following when all these assignments are due lead to a disproportionate amount of stress at the end of the course compared to any other point.

Don't take the class unless you have to.

tych also seems little condescending to be honest which kinda scared me to go talk to him in office hours because i know i donât understand the material as well as i should be. exams were also way different than what weâre used to. i had no idea how to prepare for them. so if tych could help us through that instead of just saying âyou shouldnât always be learningâ that would have been helpful. TA OH system is good to get a TA that would help you i guess but i would have had to reexplain everything to a new TA each tiem and sometimes one TA would tell me to try one thing and another TA would say another thing which just ends up confusing me more - if thereâs a way to stick w one TA instead of having to request a new one every time that would be helpful. the assignment instructioms are also very ambiguous sometimes

#### ~ ANSWER MATRICES ~

The tests were not as simple as the previous semesters' test. They were very challenging and I lost confidence throughout the length of the course. It made me really dislike the class, although I really liked the professor and his personality. I will never forget his inspirational words and his life theories that he told near the end of the semester. He's a great guy. Some of my PAs should've gotten better grades. It was either a 10/10 or a 7/10- no in between.

Loved this class, wish lab was structured a little differently

challenging but rewarding course! Love CS. the TAs were awesome too-- office hours saved my life.

Professor Tychonievich and Elzinga are my favorite and the best and most memorable professors I have ever had.

Overall, as my first CS course, I enjoyed Professor Tychonievich's teaching style and liked how he posted the lectures online so that students could re-listen to the lecture if they had any remaining questions.

Some of the test questions seemed to be unreasonably tricky, and graded a little too harshly. Also, I feel it would be helpful to learn some about arrays and larger data sets in order to prepare us to use other programming languages in engineering data analysis.

I didn't feel like I needed to attend lecture and learned way more from just doing the assignments.

Professor was great and was a great lecturer and very intelligent man who is also very kind to students and always responds to all questions with equal enthusiasm and makes sure the students understand the material by using multiple examples while lecturing.

This class helped me realize I enjoy coding

The class was very well organized the TA office hours were extremely useful.

this was a great course

highly enjoyable; probably my favorite class this semester even though I have no desire to major/minor in CS

This class is extremely difficult and the grading scale is a little unforgiving. I really cannot recommend this class to anyone without prior experience coding. It is recommended to complete beginners but the people that tend to do well have experience coding. The automatic grading is excessively punitive and the practice assignments due three times a week tend to involve a lot of TA involvement to succeed.

I really like the way this course was structured. The TA office hours were really helpful and I liked the queue system a lot. Tych had a lot of enthusiasm for the material and you could tell he cared a lot about making the course enjoyable to the students in the class. He would inquire regularly how we liked the labs and if we found it helpful for the class material. I thought the tests were fair and the programming assignments useful in applying the class material. I was initially really skeptical about enjoying a CS course as I took the class to fulfill a major requirement for CogSci but I am now planning on taking 2102, 2110, and 2150 during my final two semesters at UVA. If I had more time at UVA I would have pursued a minor in CS.

Should be a four credit course in my opinion. 3 lectures a week, 1 lab, typically 2 pa's. Clearly a four credit course in my opinion

Sometimes discussion of simple topics would seem never-ending, but I believe that helped other students who did not understand as well.

Exams are too difficult.

Professor Tychonievich was so much fun, and the lectures were very engaging! I was worried that CS lectures would be really boring and dull, but he made them fun and exciting!

Extremely difficult for an introductory course. Disappointed with the irrelevancy of the homeworks. Others methods could have been used to learn the information effectively.

Overall, hard class and exams.

It was an amazing course. While I am still planning on majoring in Mech E, this CS course has shown my what the realm of computer science is like, and I may choose to take another course to continue this. It was worthwhile and very rewarding.

n/a

this is a difficult course if you cannot devote your time to it.

I really enjoyed it! Thank you!

Good intro course but tests were very difficult.

I enjoyed this course

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	This was an enjoyable course. There was a good deal of work, but the work helped me learn. Computers and technology are going to be all over the place so this was a worthwhile course.
	It was an excellent course and I greatly enjoyed it. At times we seemed to spend too much time on a particular topic that didn't really warrant it, like turtle and if statements, but overall it was great
	Awesome teacher!
	Again, too much info for an Intro level course required for many people not interested in going into CS