

## **Computer Science 111: Concepts of Computer Science**

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Office Hours: By appointment.

The best way to reach me is to send me an email.

**Objectives:** This course has three major sections called “Units”: 1) how computers work, 2) how programs work, and 3) how to write simple programs.

- Unit 1 includes: how computers store and process data in binary and how computing hardware works. Unit 1 also has a section on how science works.
- Unit 2 includes: how programming languages work, basic algorithms, and common data structures.
- Unit 3 is an introduction to very basic programming using the programming language Python.

**Class Websites:** The course uses 3 different websites:

1. Blackboard ([bb.siue.edu](http://bb.siue.edu)) is where everything starts. It has the syllabus, announcements, weekly schedule, etc. Most class activities will also be done here.
2. Textbook: [Computer Science Illuminated](#), by Nell Dale and John Lewis. This online textbook is where you will complete Unit 1 and Unit 2. The textbook can be accessed using links on the Blackboard website.
3. Python chapters: [Automate the Boring Stuff with Python](#), by Al Sweigart. This website is where you will complete Unit 3. You can find the link for it on the Blackboard website.

**What we will do in this course:**

### **Unit 1:**

Part 1: is chapters 1 and 2 of the online textbook.

Part 2 is chapters 3 and 4.

### **Unit 2:**

Part 1 is chapters 5 and 6 of the online textbook.

Part 2 is chapters 7 and 8.

### **Unit 3:**

Part 1 is the Intro and chapters 1 and 2 of the Python website.

Part 2 is chapters 3 and 4.

Each unit has its own page on the Blackboard website listing all the things you need to do in that unit.

Each chapter has a reading quiz and an activity.

Each unit has an exam.

For each unit, do these things:

1. Read the assigned chapters and complete the chapter reading quizzes.
2. Complete the scheduled activities in each part of each unit.
3. Take the exam for that unit.

Once you have completed all three Units, you’re done!

### Assignment Chart Grading Scale:

Assignment	Number	Points Each	Total
Chapter Reading Quizzes	12	15	180
Unit Exams	3	50	150
Activities	14	15	210
Points for Course:			540

Grade Scale	
Points	Grade
540-486	A
485-432	B
431-378	C
377-324	D
323 or less	F

**Chapter Reading Quizzes:** For Units 1 and 2, these are taken on the textbook website. For Unit 3, these are taken on Blackboard in the Unit 3 page. Each quiz is 15 questions long.

**Activities:** One or two are assigned for each chapter. They are posted on Blackboard and are done there.

**Unit Exams:** Are taken on the Saturday of each week. They are 50 points each and take 1 hour.

#### Schedule:

Week	Deadline Date	Readings	Topics	Tasks
1	18-Dec	What is Science? PowerPoint	Science	Chapter 1 Reading Quiz Chapter 2 Reading Quiz
		Great Unsung Women of Computing	CS History	Activity 1 Activity 2 Activity 3
		Textbook Chapters 1, 2	Binary Values, Number Systems	
1	20-Dec	Textbook:	Gates & Circuits	Chapter 3 Reading Quiz Chapter 4 Reading Quiz
		Chapters 3, 4	Computing Components	Activity 4 Activity 5 Activity 6
1	21-Dec	Unit 1 Exam		
2	24-Dec	Textbook:	Low-Level Programming Languages	Chapter 5 Reading Quiz Chapter 6 Reading Quiz
		Chapters 5, 6	Algorithms: Sorting & Searching	Activity 7 Activity 8
2	27-Dec	Textbook:	Data Structures	Chapter 7 Reading Quiz Chapter 8 Reading Quiz
		Chapters 7, 8	High- Level Languages	Activity 9 Activity 10
2	28-Dec	Unit 2 Exam		
3	31-Dec	Python site: Introduction	Installation of Python Python Basics	Python Ch 1 Quiz Python Ch 2 Quiz
		Chapter 1, 2	Flow Control	Activity 11 Activity 12
3	3-Jan	Python site:	Functions	Python Ch 3 Quiz Python Ch 4 Quiz
		Chapters 3, 4	Lists	Activity 13 Activity 14
3	4-Jan	Unit 3 Exam		

**Condensed Schedule:**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
	Class Starts		Unit 1: Chapters 1 and 2		Unit 1: Chapters 3 and 4	Unit 1 Exam
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
		Unit 2: Chapters 5 and 6	Christmas Day		Unit 2: Chapters 7 and 8	Unit 2 Exam
29-Dec	30-Dec	31-Dec	1-Jan	2-Jan	3-Jan	4-Jan
		Unit 3: Chapters 1 and 2	New Year's Day		Unit 3: Chapters 3 and 4	Unit 3 Exam

**Deadlines:** Every quiz and activity has a deadline, when the deadline passes, the assignment will not be available. Exams taken late will have a 10pt per day penalty applied.

**Missing Deadlines:**

- a. **On accident:** Chapter Reading Quizzes and Activities cannot be made up. If you miss a Unit Exam, you can take it late for a 10-point penalty per day, including weekend days.
- b. **Because you have to:** If you know you are going to miss a deadline for some serious reason, notify me via email as soon as you are able. I will respond to these notifications on a case-by-case basis.

**Academic Honesty:** Any occurrence of plagiarism in this course will, as per university guidelines, be grounds for academic discipline and a final grade of F for the course.

**Grade Disputes:** Once a grade has been posted on Blackboard, students have one week (7 days) to contest the grade if they feel there has been an error. After that, no grade disputes will be allowed. This policy applies to all graded work.

**Services for Students Needing Accommodations:**

**ACCESS:** For students that need extra time on exams or other assistance.