

CSCI 1100: Humanities CS1 Concept Syllabus

Lecture: 1.5 Hours, twice a week

Lab: 2 hours, once a week

Instructor: CS Faculty Member

Co-Instructor: STS Faculty Member

TA: Information Technology & Web Science (ITWS) or Computer Science (CS) graduate student

Mentor Contact and Office Hours:

CS Undergraduate Students

STS Undergraduate Students

Learning Outcomes

- By successfully completing the readings below and participating in class discussions, students will achieve the following:
- Demonstrate proficiency in the purpose and behavior of basic programming constructs.
- Design algorithms and programs to solve small-scale computational programs
- Write, test and debug small-scale programs
- Demonstrate an understanding of the wide-spread application of computational thinking to real-world problems.
- Demonstrate basic proficiency in discussing the mutual formation of technology and society
- Articulate some of the biases that enter into higher education, technology, and the design of algorithmic systems
- Understand and critique dataset provenance, particularly along lines of race, gender, and class
- Effectively communicate to others the biases that enter your own systems

Required Texts

Students should purchase or otherwise obtain copies of the following texts:

- Cathy O’Neil, *Weapons of Math Destruction*(2016).
- Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*(2018).

All other readings can be obtained from the links provided in the course schedule below.

Course schedule

Week	Lecture 1	Lecture 2	Lab	Reading	Due
1		Introduction	Lab 0: Setup		
2	Python as calculator	String	Lab 1: What is Education, and What does it Do?	“Liberal Education has Failed,” by Matt Wisnioski	Hwk 1

3	Functions	Decisions	Lab 2: Epistemologies and Ideologies of Code	“UNIX and US Operating Systems in the 1950s” by Tara McPherson	
4	Tuples, Modules, Images	EXAM 1	Lab 3: Modularization and Masculinity	“Technology as Masculine Culture” by Judy Wajcman	Hwk2
5	Lists	While Loops	Lab 4: Loops and Bridges: Does Code have Politics?	“Do Artifacts have Politics,” by Langdon Winner	Hwk3
6	Controlling Loops	Data from Files and the Web	Lab 5: If Statements, Non-linearity, and Queer Stories	“Depression Quest, from <i>Twine</i> ,” merit kopas ed.	Hwk 4
7	Problem Solving and Design	EXAM 2	Lab 6: How do we Define a Problem?	“Algorithms of Oppression, Introduction and Chapter 1,” by Sofia Noble	
8	Sets	Dictionaries	Lab 7: Who Gets Counted?	“Weapons of Math Destruction, Chapter 1,” by Cathy O’Neil	Hwk 5
9	Dictionaries	Classes	Lab 8: How do we Count?	“Can an Algorithm be Agonistic?” by Kate Crawford	Hwk 6
10	Classes	Searching	Lab 9: Building Classes, Constructing Class	“The Allegheny Algorithm,” by Virginia Eubanks	Hwk 7
11	Sorting		Lab 10: Theories and Politics of Information and Order	“The Information: A Theory, a Flood,” by James Gleick	
12	TKInter	Recursion	Lab 11: Who Builds?	“Programmed Inequality, Conclusion” by Marie Hicks	Hwk 8
13	Functional Programming		Lab 12: Recursion and Recursive Narratives	“The Garden of Forking Paths,” by Jorge Luis Borges	