

CS 61A: Structure and Interpretation of Computer Programs

Fall 2020
Instructors: Hany Farid, John DeNero

Monday, December 7

- Homework 10 **extended**, due Sunday 12/13.
 - Complete the 61a online survey.
 - Complete the campus course evaluation.
 - [Vote](#) for your favorite recursive scheme art.
 - If at least 1400 students do all three, then everyone who completed the online survey will get an extra credit point.
- Final exam 3pm-6pm Thursday 12/17.
 - The final exam will have a similar format to Midterm 2: reverse environment diagrams and fill-in-the-blank code completion.
 - You do not necessarily need to take the final to pass; 175 points are required for a P or C- grade. Check [howamidoing](#).
 - Textbook content: Sections 1.1-3.5 and 4.3 of Composing Programs, excluding 1.6.5, 2.3.7, 2.4.11-13, 2.6, 2.8, 2.9.3, 3.5.4, and 4.3.6.
 - Lecture content: All lectures not marked *optional*.
 - Proctoring details (and exemption requests) will be posted to Piazza during RRR week.
 - You can use any number of pages of scratch paper and notes that you create yourself.
 - If you want to store your notes electronically, you must use a Google Doc and give edit access to cs61a@berkeley.edu.
 - You can use cs61a.org, the 61A Piazza, code.cs61a.org, and tutor.cs61a.org.
 - You cannot use the rest of the internet. No search engines. No Q&A sites. No Reddit.
 - You cannot communicate or collaborate with anyone else.
- Request an alternate exam time by Friday 12/11 if:
 - The exam would start between 8pm and 6am (inclusive),
 - You have 3 finals on the same day, or
 - You have another exam at the same time.
- [Staff](#), [HKN](#), and [CSM](#) review sessions next week.
- [Orientation & Exam Prep](#) recordings are stored [here](#).

Week 15 Class Material

- Lecture 36: Macros (optional) [Video](#) [Q&A](#) [full](#) [1pp](#) [8pp](#) [36.scm](#)
- Lecture 37: Final Examples [Video](#) [Q&A](#) [full](#) [1pp](#) [8pp](#) [37.py](#)
- Lecture 38: Conclusion [Video](#) [Q&A](#)
- Week 15 Readings:
- Disc 14: Final Review

Week 15 Resources

- Shayna's SQL Slides (Fall 2020)
- Jade's SQL Guide (Spring 2020)
- Minilecture: SQL Intro (Fall 2017)
- Michael's SQL Review Slides (Summer 2017)
- (Spring 2016) Colin's SQL Worksheet [Solutions](#)
- Kevin's SQL Slides (Fall 2015)
- Andrew's Quick Guide to SQL (Fall 2015)

Resource Search

Search for terms like "recursion", "homework 3", or "practice".

Week	Date	Lecture	Textbook	Orientation Links	Lab and Discussion Links	Homework & Project
1	Wed 8/26	Computer Science Video full 1pp 8pp 01.py		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 00: Getting Started 🕒 Tue 9/1	
	Fri 8/28	Functions Video Q&A full 1pp 8pp 02.py	Ch. 1.1 Ch. 1.2			HW 01: Variables & Functions, Control 🕒 Thu 9/3
2	Mon 8/31	Control Video Q&A full 1pp 8pp 03.py	Ch. 1.3 Ch. 1.4 Ch. 1.5	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 01: Variables & Functions, Control 🕒 Tue 9/1	
	Wed 9/2	Higher-Order Functions Video Q&A full 1pp 8pp 04.py	Ch. 1.6	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 01: Environment Diagrams, Control	Hog 🕒 Fri 9/11
	Fri 9/4	Environments Video Q&A full 1pp 8pp 05.py	Ch. 1.6	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 02: Higher-Order Functions, Lambda Expressions 🕒 Tue 9/8	
3	Mon 9/7	No Lecture: Labor Day				
	Wed 9/9	Design Video Q&A full 1pp 8pp 06.py		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 02: Higher-Order Functions, Self Reference	
	Fri 9/11	Function Examples Video Q&A full 1pp 8pp 07.py				
4	Mon 9/14	Midterm 1				
	Wed 9/16	Recursion Video Q&A full 1pp 8pp 08.py	Ch. 1.7	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 03: Recursion	Hog Contest 🕒 Mon 9/21
	Fri 9/18	Tree Recursion Video Q&A full 1pp 8pp 09.py	Ch. 1.7			HW 02: Recursion 🕒 Thu 9/24
5	Mon 9/21	Containers Video Q&A full 1pp 8pp 10.py	Ch. 2.1 Ch. 2.3	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 04: Recursion, Tree Recursion, Python Lists 🕒 Tue 9/22	
	Wed 9/23	Data Abstraction Video Q&A full 1pp 8pp 11.py	Ch. 2.2	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 04: Tree Recursion, Python Lists, Data Abstraction	Cats 🕒 Fri 10/2
	Fri 9/25	Trees Video Q&A full 1pp 8pp 12.py	Ch. 2.3			
6	Mon 9/28	Binary Numbers (optional) Video Q&A full		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 05: Data Abstraction, Trees 🕒 Tue 9/29	
	Wed 9/30	Circuits (optional) Video Q&A full		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 05: Trees, Binary Numbers	
	Fri 10/2	Mutable Values Video Q&A full 1pp 8pp 15.py	Ch. 2.4			HW 03: Trees, Data Abstraction 🕒 Thu 10/8
7	Mon 10/5	Mutable Functions Video Q&A full 1pp 8pp 16.py	Ch. 2.4	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 06: Nonlocal, Mutability 🕒 Tue 10/6	
	Wed 10/7	Iterators Video Q&A full 1pp 8pp 17.py	Ch. 4.2	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 06: Nonlocal, Mutability, Iterators	
	Fri 10/9	Objects Video Q&A full 1pp 8pp 18.py	Ch. 2.5			HW 04: Nonlocal, Iterators 🕒 Thu 10/15
8	Mon 10/12	Inheritance Video Q&A full 1pp 8pp 19.py	Ch. 2.5	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 07: Object-Oriented Programming, Iterators 🕒 Tue 10/13	Ants 🕒 Fri 10/23
	Wed 10/14	Representation Video Q&A full 1pp 8pp 20.py	Ch. 2.7	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 07: Object-Oriented Programming	
	Fri 10/16	Composition Video Q&A full 1pp 8pp 21.py	Ch. 2.9			HW 05: Object-Oriented Programming, Linked Lists, Trees 🕒 Mon 10/26
9	Mon 10/19	Efficiency (optional) Video Q&A full 1pp 8pp 22.py 22.ipynb	Ch. 2.8	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 08: Linked Lists, Mutable Trees 🕒 Tue 10/20	
	Wed 10/21	Decomposition Video Q&A full 1pp 8pp 23.py 23.zip		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 08: Linked Lists, Trees, Representation	
	Fri 10/23	Data Examples Video Q&A full 1pp 8pp 24.py				
	Sat 10/24				Lab 09: Midterm Review 🕒 Tue 10/27	
10	Mon 10/26	Users (optional) Video Q&A		2pm 2pm-NPE 6pm 7pm-NPE 9pm		
	Wed 10/28	Midterm 2				
	Fri 10/30	Ethical AI & Data (optional) Video				
11	Mon 11/2	Scheme Video Q&A full 1pp 8pp 27.scm	Ch. 3.1 Ch. 3.2	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 10: Scheme 🕒 Wed 11/4	HW 06: Scheme 🕒 Thu 11/5
	Wed 11/4	Exceptions Video Q&A full 1pp 8pp 28.py	Ch. 3.3	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 10: Scheme, Scheme Lists	
	Fri 11/6	Calculator Video Q&A full 1pp 8pp 29.scm 29.zip	Ch. 3.4			HW 07: Scheme Lists 🕒 Thu 11/12
12	Mon 11/9	Interpreters Video Q&A full 1pp 8pp	Ch. 3.5	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 11: Interpreters 🕒 Tue 11/10	Scheme 🕒 Tue 11/24 Scheme Challenge Version 🕒 Tue 11/24
	Wed 11/11	No Lecture: Veterans Day			Disc 11: Interpreters	
	Fri 11/13	Declarative Programming Video Q&A full 1pp 8pp 31.sql	Ch. 4.3			HW 08: Scheme 🕒 Thu 11/19
13	Mon 11/16	Tables Video Q&A full 1pp 8pp 32.sql	Ch. 4.3	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 12: SQL 🕒 Tue 11/17	Scheme Contest 🕒 Mon 11/30
	Wed 11/18	Aggregation Video Q&A full 1pp 8pp 33.sql	Ch. 4.3	2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 12: SQL	
	Fri 11/20	Databases (optional) Video Q&A full 1pp 8pp 34.py 34.sql	Ch. 4.3			HW 09: SQL 🕒 Thu 12/3
14	Mon 11/23	Tail Calls (optional) Video Q&A full 1pp 8pp		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 13: More SQL 🕒 Tue 11/24	
	Wed 11/25	No Lecture: Thanksgiving				
	Fri 11/27	No Lecture: Thanksgiving				
15	Mon 11/30	Macros (optional) Video Q&A full 1pp 8pp 36.scm		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Lab 14: Final Review 🕒 Tue 12/1	
	Wed 12/2	Final Examples Video Q&A full 1pp 8pp 37.py		2pm 2pm-NPE 6pm 7pm-NPE 9pm	Disc 14: Final Review	
	Fri 12/4	Conclusion Video Q&A				HW 10: Finale 🕒 Sun 12/13 Scheme Gallery 🕒 Sun 12/13
16	Thu 12/17	Final (3-6 PM)				

CS 61A

Weekly Schedule

Office Hours

Staff

Resources

Studying Guide

Debugging Guide

Composition Guide

Policies

Assignments

Exams

Grading