UC Davis
Cruess Hall 207
M/W 4:10pm - 7:00pm

Professor: Jiayi Young
jdyoung@ucdavis.edu
Office Hours: by appt.
Cruess Hall 127

Design 37

Coding for Designer

//**Course description**
Coding concepts and skills as applied for visual design outcomes. Algorithm-based design and development, including sketches, flowcharts, pseudo-code and entry level coding. Principles of coding, logic, syntax and structure. Analysis of historical examples of code based design. Development, iteration and presentation of design projects.

Topics include: Variables and arrays; methods and properties; functions; conditions; iteration, repetition and loops; motion; objects and response; procedural and modular; input, output; media; libraries.

Technical demonstrations include Processing.

//**course format**
Course format is a combination of lecture/discussion and studio/workshop. There are lectures on various topics to help you build your typographic skills from week to week, and you will work in class on projects. We spend much of class working and reviewing work., so your participation is important and will reflect in your grade. In addition, you are welcome to meet with me on an individual basis to dis cuss your work.

You can access important course files via the following Google Docs link. No login required.
https://goo.gl/Nyy5cH

//**pre-requisites**
Required: DES 1, 14, 15, 16

//**Required text**
Learning Processing: A Beginner's Guide to Programming Images, Animation and Interaction, 2nd edition, Daniel Shiffman, 2015, Morgan Kaufmann

//**Supply List**
- 3-ring binder for all course material + quick code reference
- Sketch book
- One large brown clasp envelope of at least 9"x12" with your name clearly printed on the cover
- Removable/cloud storage for saving and backing up your digital files
  Options include Google Drive, Dropbox, and USB drives. Always have a backup of your files.
- Graph Paper Sketchbook, 8.5 x 11 or 9 x 12, perforated pages (bring to every class)

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//**Grading policy**

You will receive feedback on your progress in the form of grades, verbal cri tiques and discussions. Your final grade will be determined by the following:

10% - attendance with cell phone policy enforced
20% - exercises
10% - class presentation
10% - real-life proposal
25% - midterm
25% - final

A >= 90%

B >= 80%

C >= 70%

D >= 60%

F <= 60%

No grade of “incomplete” will be given.
No late projects are accepted.

//**Attendance**

Attendance will be taken at the beginning and end of class. you must partici pate in class for the entire class period–including studio time for work and critique–to be considered present. Class begins promptly as scheduled with announcements and discussion. If you are late, you will miss important informa tion and handouts.

If an absence is unavoidable, it is your responsibility to obtain notes, hand outs and assignments from another student and learn the material you missed. If you have unanswered questions, contact our Student Tutor or our TA. If you have talked with other students and still have a question that I can help you with, you may email me. Please be very specific about what you do know and what is will unclear. I will do my best to answer emails within 48 hours; however, I don’t unusally read email on the weekend. If you are aware of an upcoming absence, please make arrangements with me ahead of time.

//**Student Tutor and Teaching Assistance**

Student Tutor: Michelle Lee, mplee@ucdavis.edu
Graduate Teaching Assistant: Charlie Liu, yzhliu@ucdavis.edu

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Course Work

//**Assignemnts and Schedule**

The schedule may be adjusted during the course and changes will be announced at least one class period in advance.

{RESEARCH}
Some of your work will require library and online research, such as finding out about a particular designer. Become familiar with the resources in the Shields library (as well as other libraries and resources) so that you know where to look for good examples of code and design.

{PROJECTS}
You are responsible for planning ahead to be sure you have prepared any mate rials you may need to research, sketch, write, code, design, experiment, etc. In most cases you will sketch by hand to develop your ideas before moving to the computer to code. You will need to keep all working sketches, files for all projects and assignments.

{EXERCISES, FIELD TRIPS AND OTHER ACTIVITIES}
Exercises and additional individual and group activities, possibly field trips will be assigned or arranged during the course to develop necessary under standing of course material and skills.

{CRITIQUES AND PRESENTATIONS}
Critiques are meant to push you further in your thinking, exploration, and development of ideas. We will have critiques often so be prepared to talk about your work. You will be expected to express your ideas. You will gain experience organizing your thoughts and visual materials in a professional manner for presentation and discussion. As part of your project grade, you will be evaluated on the quality of your presentations.

Cell Phone Policy

//**Be Present**

During class time, your cell phone, or its equivalent, is to be turned off and out of sight. Exceptions may be made only if you discuss your situation prior to the start of that day’s class; in this case, your cell phone must be set to vibrate/silent.

Plan on being present in class and developing efficient work habits. Studies show that multi-tasking is less effective than many of us believe! Surfing the Internet, checking email, instant messaging, etc. take away from your ability to participate fully in class. Participation counts for 10% of your grade–this can sometimes be the difference between one letter grade and the next.

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Accommodations

//**Communicate with Me**

Reasonable accommodations for people with disabilities can be made by talking with the professor as early in the quarter as possible; solutions that benefit one student can end up benefiting the class as a whole, so please feel free to come forward with any questions or suggestions. You can also contact the Student Disability Center: http://sdc.ucdavis.edu/or 2-3184.

UCD Code of Academic Conduct

All students are expected to adhere to the UCD Code of Academic Conduct at all times. Student Judicial Affairs (sja.ucdavis.edu) lists the following responsibilities for students:

- Be honest at all times.
- Act fairly towards others. For example, do not disrupt or seek an unfair advantage over the others by cheating, or by talking or allowing eyes to wander during exams.
- Take group as well as individual responsibility for honorable behavior. Collectively, as well as individually, make every effort to prevent and avoid academic misconduct, and report acts of misconduct that you witness.
- Do not submit the same work in more than one class. Unless otherwise specified by the instructor, all work submitted to fulfill course requirements must be work done by the student specifically for that course. This means that work submitted obtains permission from the instructor.
- Unless permitted by the instructor, do not work with others on graded coursework, including in class and take-home tests, papers, or homework assignments. When an instructor specifically informs students that they may collaborative on work required for a course, the extent of the collaboration must not exceed the limits set by the instructor.
- Know what plagiarism is and take steps to avoid it. When using the words or ideas of another, even if paraphrased in your own words, you must cite your source. Students who are confused about whether a particular act constitutes plagiarism should consult the instructor who gave the assignment.
- Know the rules – ignorance is no defense. Those who violate campus rules regarding academic misconduct are subject to disciplinary sanctions, including suspension and dismissal.

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//Course Schedule
This tentative schedule will be updated weekly. All assignments are due at the beginning of class, unless otherwise stated.

(always preview all Schiffman examples)

//WEEK 1
M jan 4: Introductions, Syllabus
W jan 6: Due: Change the World / Intro + Draw / Introduce Ex 1: Draw it! /Sign up: Student Presentations
Reading Ch 1, 2, 3 (only up to 3-2)

//WEEK 2
M jan 11: Due: Paper sketches for Ex 1 / code: Draw it! / Student Presentations
W jan 13: Due: Ex 1 / Variables + Conditionals / Introduce Ex 2: Free Patterns! / Student Presentations
Reading Ch 4, 5

//WEEK 3:
M jan 18: no class - Martin Luther King, Jr. Holiday
W jan 20: Due: Paper sketches for Ex 2 / code: Free Patterns! / Student Presentations

//WEEK 4
M jan 25: Due: Ex 2 / Loops / Introduce Ex 3: eQuilt / Student Presentations
W Jan 27: Due: Paper sketches for Ex 3 / code: eQuilt / Student Presentations
Reading Ch 6

//WEEK 5
M feb 1: Due: Ex 3 / Random and Transform + Generative Design / Introduce Midterm / Student Presentations
W feb 3: Due: Component 1, 2, 3 from Midterm / Push Pop / Student Presentations
Reading Ch 4-6 on page 60, optional Ch 14

//WEEK 6
M feb 8: Lab for component 4 / Functions / Student Presentations
W feb 10: Due: Component 4 from Midterm project / Lab for component 5 / Student Presentations
Reading Ch 7

//WEEK 7
M feb 15: no class - President's Day Holiday
W feb 17: Due: Midterm project / Midterm project critique / Introduce Real-life Proposal

//WEEK 8
M feb 22: Due: Real-Life Proposal / Array / Introduce Final Project - team, brainstorm / Student Presentations
W feb 24: Due: Final Project: moodboard, research / Objects / Final Project - exchange, plan / Student Presentations
Reading Ch 8, 9

//WEEK 9
M feb 29: Due: Final Project Proposal / more Array Objects + Text / proposal presentations / Student Presentations
W mar 3: Due: Final Project Paper Sketches / AV / make prototype / Student Presentations
Reading Ch 17, Optional Reading Ch 15, 16, 18, 19, 20

//WEEK 10
M mar 7: Due: Final Project Prototype / load multiple images + SVG + data /code: Final Project / Student Presentations
W mar 9: Final Project debug /Student Presentations

//WEEK 11
M mar 14: Due: Final Project Critique