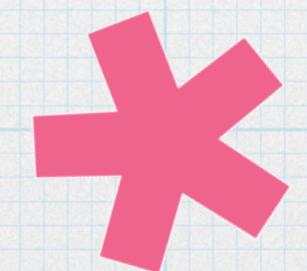


Intro to Programming

HCDE 598 A
AUT 17



Your Hosts



Andy Davidson
HCDE Faculty



Sam Kolovson
HCDE PhD Student

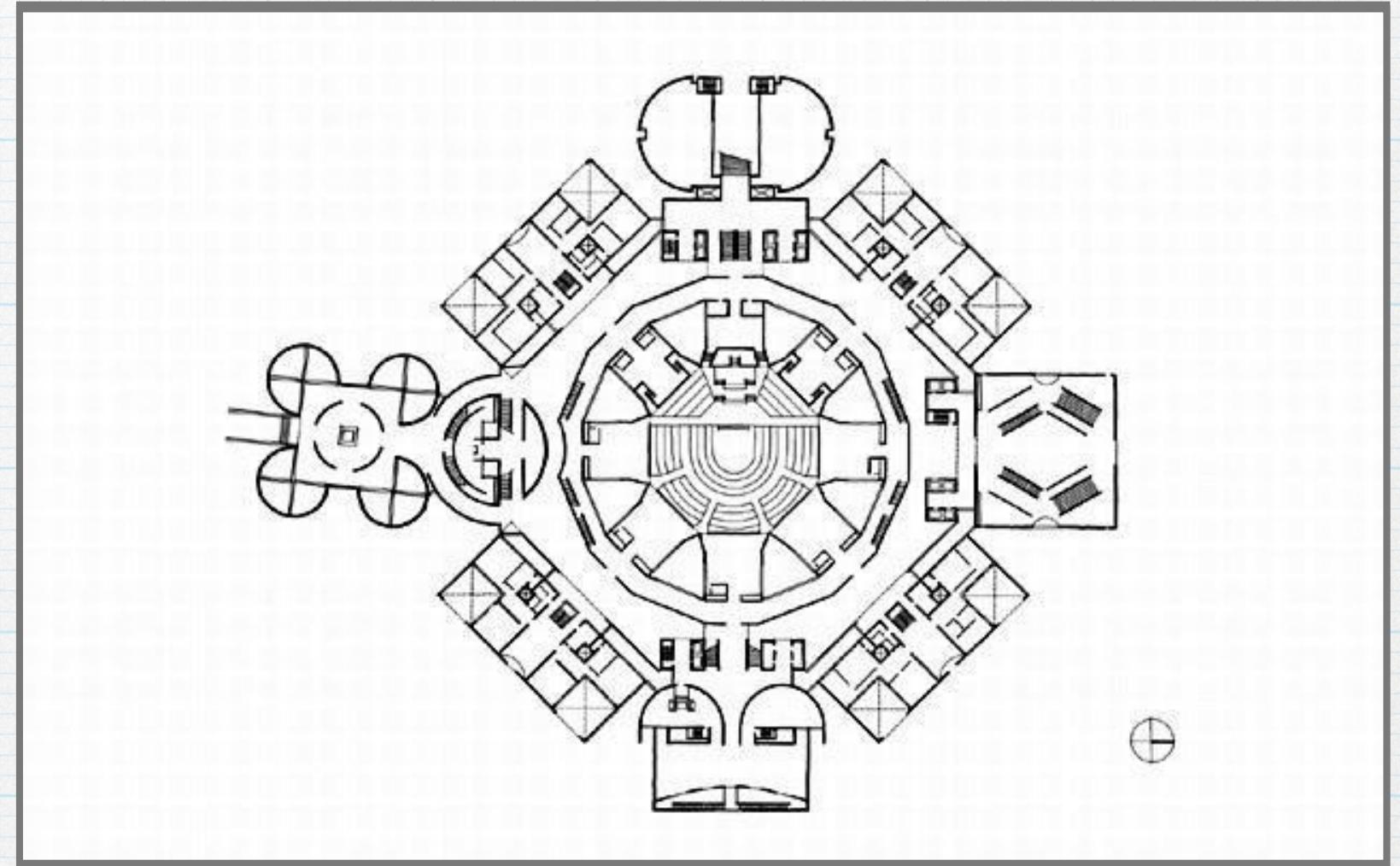
Week 1

- * The Course Idea (briefly!)
- * Diving In
 - * p5.js Intro
 - * Computer Graphics
- * The Syllabus



The Course Idea

- * Pour the foundation
- * Computing fundamentals
- * Novice programmers
- * Systematic studio
- * Empower explorations



National Assembly Building
Dhaka, Bangladesh
Louis Kahn

Louis Kahn

“My Architect: A Son’s Journey”

Documentary by Nathaniel Kahn
2003



myarchitectfilm.com

Experience

On a scale of 1–5, how would you rate your comfort level with “programming?”
(in high-level languages like Java, C++, Python, JavaScript, etc.)

1

I've
(essentially)
never done any
coding before.

2

I have **some exposure** to coding, but it involves a lot of “poking and hoping.”

3

I've **dabbled** in coding, but don't have a very deep understanding of the concepts.

4

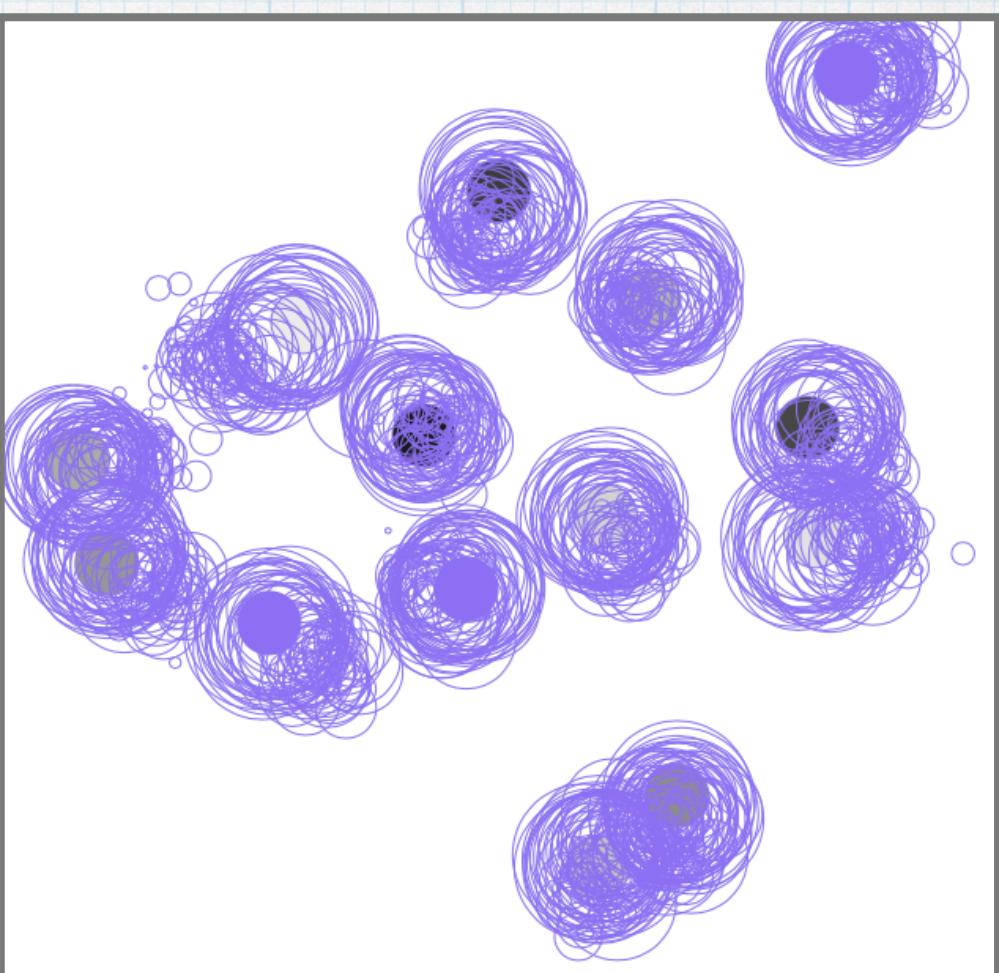
I've **done some** coding, but am not super comfortable solving complex problems.

5

I **get paid** for coding !

p5.js

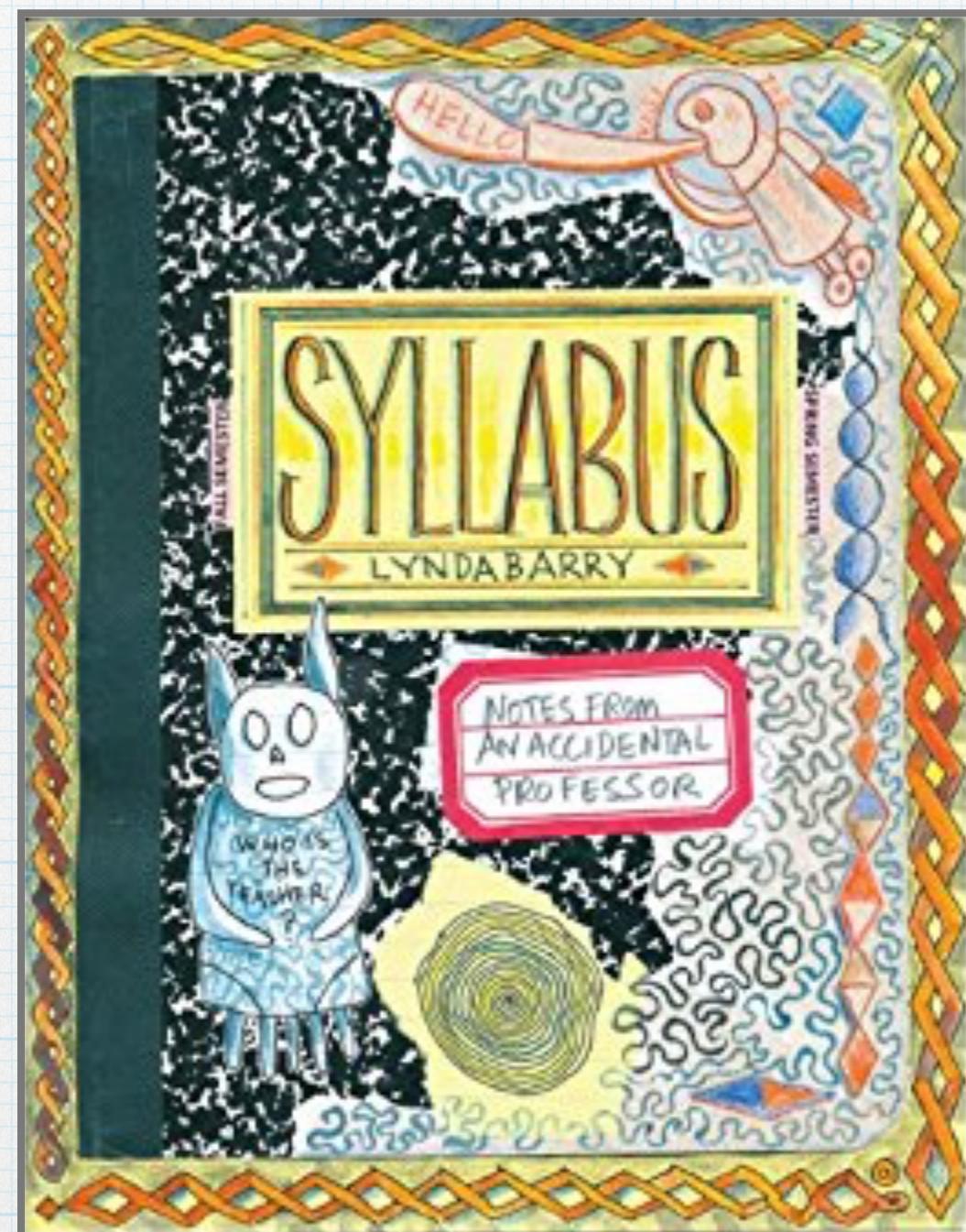
- * Processing → JavaScript
- * Designed for novices
- * Interactive graphics



alpha.editor.p5js.org

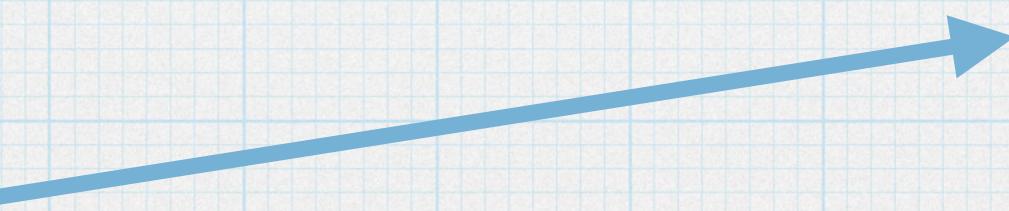
“diving in!”

Syllabus Stuff



Structure

- * 2 credits = 6 hours / week
- * Lecture/demo + studio time
- * Weekly assignments
- * Short final project



WEEK	TOPIC
1	Computer Graphics
2	Variables, Data
3	Loops, Conditionals
4	Algorithms, Pseudo-code
5	Arrays
6	Functions, Parameters
7	Modularity, Encapsulation
8	Debugging Techniques
9	Project Lab
10	Project Demonstrations
F	Final Reflection

Information

- * Canvas
- * Slack
- * GitHub
- * Panopto

assignments

discussions

resources

demos



Quick Canvas Tour

The screenshot shows a Canvas LMS course page for "HCDE 598 A". The left sidebar has a purple header with the "W" Canvas logo and links to Account, Dashboard, Courses, Calendar, Inbox, and Help. The main content area has a blue header with the course name "HCDE 598 A" and the term "Autumn 2017". Below the header, the "Home" link is highlighted in blue. The page title is "HCDE 598A Au 17: Intro to Programming". To the right of the title is a large red asterisk (*) followed by "p5.js". Below the title, there is a welcome message: "Welcome to HCDE 598 (A) for Autumn 2017!". It describes the course as a 2 credit workshop in foundations of computing, introducing students to core concepts in computer science and programming using interactive graphics applications. It is designed for students with NO prior experience programming in a high-level language like Java, Python, or C++. The hosts are listed as Andy Davidson, HCDE Faculty (<adavid7@uw.edu>) and Sam Kolovson, HCDE PhD Student (<kolovson@uw.edu>). The meeting times are listed as Mondays, 6:00–8:00 pm at Denny 112 (uw.edu/maps/?den).

canvas.uw.edu/courses/1160750

Class Sessions

* Intro/recap

10

* New topic

30

* Exercise lab

30

* Showcase

10

* Studio time

20



housekeeping
quick
provocation
or video

short
discussion of
homework

lecture /
demo

example of
new topic

pair
programming
practice
exercise for
new topic

exercise
review

share
observations

show
solutions

assignment
clinic/lab

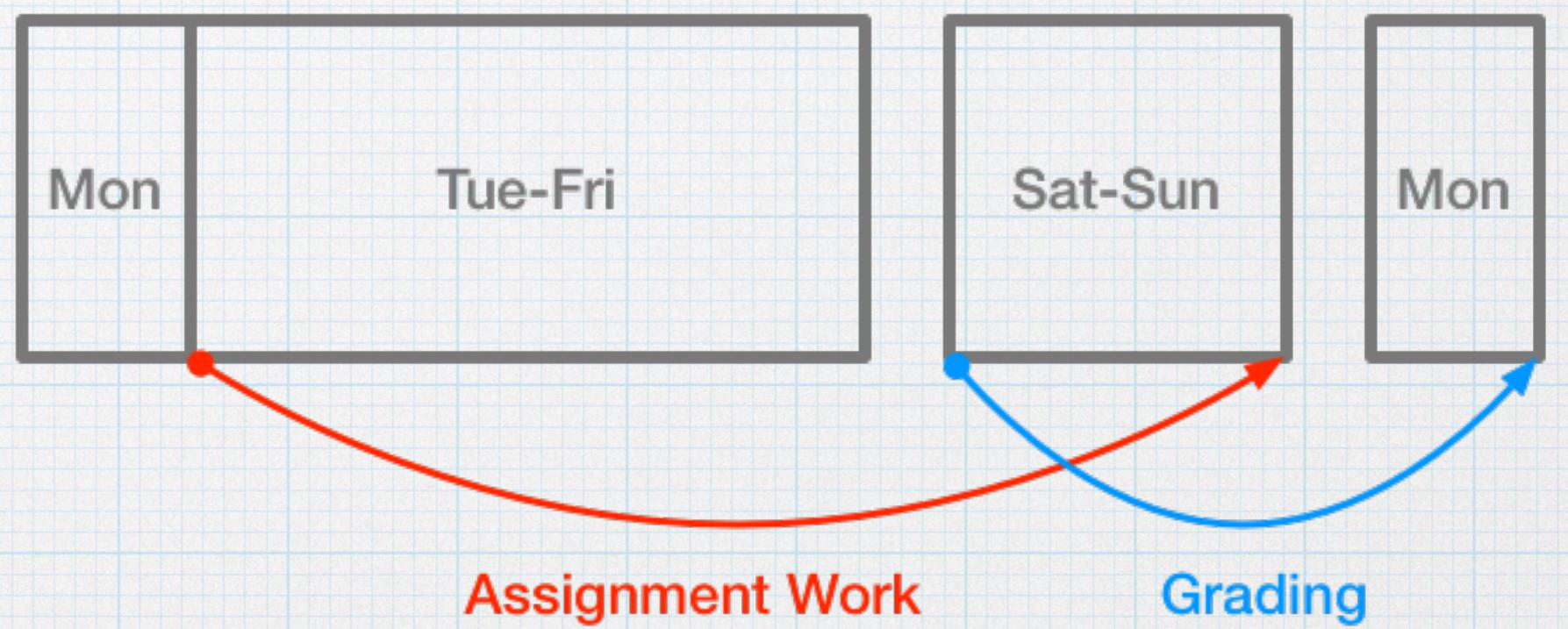
Grading

- * Weekly exercises 70%
- * Final project 25%
- * Process 5%

CATEGORY	ASSIGNMENT	PERCENTAGES
EXERCISES		70%
1	Computer Graphics	10%
2	Variables, Data	10%
3	Loops, Conditionals	10%
4	Algorithms, Pseudo-code	10%
5	Arrays	10%
6	Functions, Parameters	10%
7	Modularity, Encapsulation	10%
PROJECT		25%
	Project Proposal	5%
	Project Prototype	5%
	Project Implementation	10%
	Project Report	5%
PROCESS		5%
	Studio Demo	2%
	Final Reflection	3%

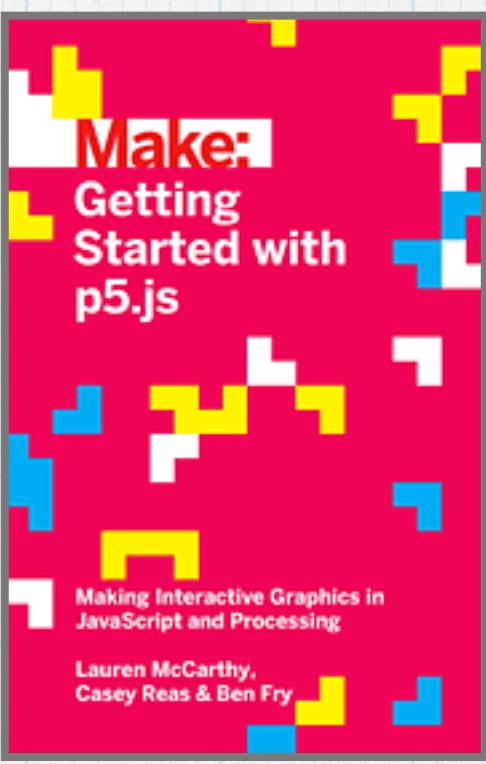
Assignments

- * Class → home
- * Due Sunday night
- * Feedback & review next class



Resources

- * “Getting Started with p5.js”
- * LOTS of web sites, videos, books ...
- * Class-curated list of favorites



Reminders

- * Setup a p5.js web editor account
- * Join the class Slack team
- * Make a Who's Who slide
- * Have fun coding !



