

# SYLLABUS

<b>HSCI</b>			● Art Center College of Design	
<b>Physical Computing 2</b>		<b>HSCI-232</b>	<b>section 1</b>	<b>3 units</b>
INSTRUCTOR	Name	<b>Casey Anderson</b>	<b>ANNX-A8</b>	<b>FA 15</b>
	Contact information	<b>casey.anderson@artcenter.edu</b>		
	Office hours	<b>Mondays, 4 – 6pm</b>		
<b>COURSE DESCRIPTION</b>				
This project-oriented class leads students through three open-ended, small-to-mid-scale design briefs in the context of the Arduino development environment. Students will explore interaction, environmental/ambient sensing strategies, and more complex digital electronics systems as a means to increase their understanding of contemporary approaches to electronics and computation. Simultaneously, students will learn strategies for seeing a project through from ideation to completion. Regular critiques will provide an opportunity for students to share their individual research with their colleagues as well as receive direct feedback from the instructor.				
<b>COURSE LEARNING OUTCOMES</b>				
Students in Physical Computing 2 will be able to: (CLO 1) construct simple circuits and otherwise interface with electronics, (CLO 2) learn and explore the basic principles of software design, (CLO 3) articulate and prototype experiences or devices that demonstrate effective and creative authorship with Technology in an Art and Design context, and (CLO 4) become more familiar with the process of taking a project using the technology from ideation to fabrication.				

<b>ANTICIPATED SCHEDULE</b>	
project 1: ambient	Weeks 3 - 6
project 2: interactive	Weeks 6 - 10
project 3: combine	Weeks 10 - 13

<b>GRADING</b>
<p>Grades will be calculated based on the following distribution:</p> <ul style="list-style-type: none"> <li>• Classroom Attendance = 50%</li> <li>• In-class projects and lab assignments = 25%</li> <li>• Individual Projects = 25%</li> </ul> <p>Late project policy: for every week a project is late its highest possible grade drops by a letter.</p>

ALIGNMENT CHART				
	ALIGNMENT TO COURSE LEARNING OUTCOMES			
BENCHMARK ASSIGNMENTS	CLO 1: Construct Electronics	CLO 2: Software	CLO 3: Effectively Author in Tech	CLO 4: Ideation to Completion
1. ambient	(x)	(x)	(x)	(x)
2. interactive	(x)	(x)	(x)	(x)
3. combine	(x)	(x)	(x)	(x)

COST INFORMATION				
REQUIRED MATERIALS:		Access to a computer, <a href="#">Arduino Starter Pack</a> , Miscellaneous components/sensors	ESTIMATED COST OF MATERIALS:	\$ 150.00 – 200.00
INSTRUCTION/HOMEWORK				
CLASS ACTIVITIES (all that apply during the term)	y	Lecture/Discussion	WEEKLY HOMEWORK:	6 – 10 hours
	y	Instruction/Demonstration		
	y	Critique		
	y	Studio time		
	y	Lab		

EXPECTATIONS FOR CLASSROOM CONDUCT
<p>Art Center is committed to maintaining a civil and safe learning environment, free from bias, coercion, and harassment for all. The classroom is a shared environment where all parties are accountable for behavior and contributions to a productive and supportive atmosphere. We understand that our members represent a rich variety of backgrounds and perspectives and are committed to providing a set of conditions for learning that respects diversity. While working together to build this community we ask all members to:</p> <ul style="list-style-type: none"> <li>• be open to the views of others</li> <li>• honor the uniqueness of their colleagues</li> <li>• recognize differences in learning, language, approach and ability</li> <li>• appreciate the opportunity that we have to learn from each other in this community</li> <li>• value each other's opinions and communicate in a respectful manner</li> </ul> <p>All students are expected to abide by the Art Center Code of Conduct. All Faculty members, as Employees, are expected to abide by the Employee Standards of Conduct. The full statements of these policies can be found in the Student and Employee Handbooks. To report an incident, please see the Grievance and Complaint Policies and procedures listed in the Student, Faculty, and Employee Handbooks. If you have any concerns or would like to discuss an incident, please contact your Instructor, your Department Chair, the Center for the Student Experience, or the Office of the Provost.</p>
POLICY AGAINST HARRASSMENT
<p>The College is committed to providing an educational environment that is free of any kind of unlawful harassment. In keeping with this commitment, the College maintains a strict policy prohibiting unlawful harassment by any employee and by any third parties, such as contractors, visitors, students or vendors. Any harassment on the basis of race, color, religious creed, sex, ancestry, national origin, age, physical or mental disability, medical condition, genetic characteristic, marital status, veteran status, sexual orientation, gender identity, transgender identity or any other characteristic protected by federal, state or local law is strictly prohibited. Examples of such conduct that may violate this policy include verbal harassment, physical harassment or visual harassment. Verbal harassment may include, but is not limited to, epithets and derogatory comments or slurs on any of the bases listed above. Physical harassment may include, but is not limited to, assaulting, impeding or blocking movement, or physically interfering with the normal work or movement of another, when directed at that individual on any of the bases listed above. Visual harassment may include, but is not limited to, the display or possession of derogatory posters, cartoons, computer images or drawings on any of the bases listed above. Violation of the Policy Against Harassment may result in disciplinary action, up to and including suspension or dismissal. Please see the Student Handbook for additional guidelines on the above.</p>

## ATTENDANCE POLICY

To complete a course successfully, students must attend all class sessions (unless they are engaged in research or location assignments that have been authorized in advance by the class instructor of the missed class). The instructor takes attendance at the beginning of each class. At the discretion of the instructor, three or more absences may result in a grade of F. Students who miss a class due to illness should discuss the absence with the instructor at the next class meeting. Students who are ill for a week or longer should inform their Department Chair's office of their absence. Please see the full Attendance Policy in the Student Handbook for more information.

## DISABILITY STATEMENT

Art Center complies with the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and state and local requirements regarding students and applicants with disabilities. Under these laws, no otherwise qualified individual with a disability shall be denied access to, or participation in the services, programs and activities of the College. The Center for the Student Experience has more information on Disability Services, policy and Resources for students. Please see the full Disability Statement in the Student Handbook for more information.

## STATEMENT OF ACADEMIC AND CREATIVE INTEGRITY

Academic and creative integrity is essential to personal and educational growth of students, which all members of the Art Center community are expected to uphold. This value maintains the standards of excellence of the College and creates a meaningful learning environment. A violation of the Academic and Creative Integrity Policy is defined as misconduct including but not limited to plagiarism, creative dishonesty, multiple submission of the same work, cheating, unauthorized collaboration, misrepresentation of ability, sabotage, falsification of records, and complicity in any of the above. The full Academic Integrity Policy can be found in the Student Handbook.

## GRADE POINT DESCRIPTIONS

Grades are considered FINAL when submitted by the faculty and can only be changed to correct an error in grading or to change an official Incomplete grade to a final grade. Students CANNOT submit or redo work after the end of the term unless an official Incomplete has been approved. The deadline for changing an Incomplete grade is Friday of Week 14 of the term following the term when the course was taken. The deadline for changing an incorrect grade is Friday of Week 6 following the term when the course was taken. Art Center uses the following grading system:

A 4.00 points	C+ 2.50 points	D- 0.75 points	N 0.00 points (Non-attendance Failure)
A- 3.75 points	C 2.00 points	F 0.00 points (Fail)	U 0.00 points (Unsatisfactory)
B+ 3.50 points	C- 1.75 points	S 0.00 points (Satisfactory)	P 0.00 points (Pass)
B 3.00 points	D+ 1.50 points	I 0.00 points (Incomplete)	W 0.00 points (Withdrawal)
B- 2.75 points	D 1.00 points	M 0.00 points (Missing)	