The Computer as an Expressive Medium
Syllabus

Course Number: LMC 6310
Location: Skiles 346
Times:
T/Th – 3:00p-3:50p
F (lab) – 10:00a-12:45p

Instructor: Dr. Anne Sullivan
Instructor Email: anne.sullivan@lmc.gatech.edu
Office Hours: By appointment
Office Location: TSRB 317B

TA: Tom Jenkins
TA Email: tom.jenkins@gatech.edu

Course Website:
http://canvas.gatech.edu

Course Description:

The goal of this course is to gain computational literacy in the context of programming as an art and design practice; that is, to understand computation as an expressive medium. We will juxtapose reading and discussion of seminal articles and works in computational media with interactive digital projects designed to exercise specific technical skills as well as encourage conceptual explorations in computational art and design and what it means to make with meaning.

Anyone working in new media will eventually be involved on interdisciplinary projects in which the ability to program will be a strong asset, if not a necessity. Even if in your future career as an artist or designer programming is not a large part of your practice, this course will empower you to communicate confidently with programmers, and thus deepen your interdisciplinary collaborations.

M.S. Learning Objectives

- Demonstrate knowledge, comprehension, and application of the tools and formal design elements of digital media design.

- Demonstrate the ability to devise, design, create, and assess prototypical digital media artifacts, services, or environments and to contextualize them within recognized traditions of practice.
- Justify the design choices in their works
- Develop digital media artifacts
- Demonstrate ability to set up and use common tools for writing code and managing the software development process

Ph.D. Learning Objectives
- Students can identify and analyze a domain within the field digital media and identify areas for original contribution as well as methods to pursue these contributions.
- Students can formulate original interpretations and design original prototypes that reflect an understanding of the humanistic context of digital media.
- Apply theoretical concepts to specific digital media works
- Identify and define a suitable research problem in digital media design and apply appropriate disciplinary or interdisciplinary research methods to address it.

In addition, both M.S. and Ph.D. students should have three portfolio-worthy projects, one of which is a further refined project that demonstrate their skills in expressive computing.

Attendance & Participation
Class attendance and participation is mandatory. Participation in class discussion is imperative because it allows you to explore the readings, computing concepts, and projects collaboratively, and in the process, discover meanings and issues that you probably would not discover on your own. Participation in class also challenges you to continuously question, refine, and articulate your own ideas and interpretations.

In addition, much of this class is based in critiques, which require full participation and cannot be replicated outside of class. Extensive teaching and learning occur through critiques: it is through critiques that you will develop your skills for both making and discussion of the made.

Thus, your attendance and participation in critiques is an important and required aspect of this class.

Grading
If you complete all of the requirements for the assignment reasonably well, you should expect to earn a B. In order to earn an A, you must complete and go "above and beyond" all of the requirements and your work must be exceptional across multiple grading factors.

Absence from more than three classes will result in the loss of 1-letter grade for the course.

Materials
Students will be required to buy any needed materials, including a Makey Makey, Arduino or raspberry pi for project #3.

Texts
[Hamlet on the Holodeck](#) (updated version) – Janet Murray
[The New Media Reader](#) – Nick Montfort & Noah Wardrip-Fruin
[The Design of Everyday Things](#) (revised and expanded version) – Don Norman

Recommended:
[Learning Processing](#) – Daniel Shiffman

Information for Students with Disabilities
I am happy to accommodate your needs. To request accommodations, please contact the Office of Disability Services.
404-894-2563
dsinfo@gatech.edu
Suite 123, Smithgall Student Services Building
You can find more information here: http://disabilityservices.gatech.edu

Honor Code Statement
Students are expected to adhere to the Georgia Tech Honor Code: http://honor.gatech.edu.

Assignments
All students are responsible for the assigned readings, attending critiques & presentations, and four team project assignments:
- P1: Narrative-based Interactive Experience
- P2: Generative Interactive Experience
- P3: Physical Interactive Experience
- P4: Iteration on a previous project

Ph.D. students will, in addition to the above, complete a 6-8 page term paper in ACM format on a topic of their choosing related to the course.

The grading scale for M.S. students will be: P1 (20%), P2 (25%), P3 (25%), P4 (30%)
The grading scale for Ph.D. students will be: P1 (20%), P2 (20%), P3 (20%), P4 (20%), Term paper (20%)

Course Schedule

Module 1 – Narrative
Week 1
Course Introduction, Team formation, & Project 1 Introduction

The syllabus, dates, times, assignments, and details are subject to change by instructor notification through Canvas or email.

Lab: Team work
Reading: Hamlet on the Holodeck, Introduction, Ch 1-2

Week 2
Lab: Processing
Reading: Hamlet on the Holodeck, Ch 3-4

Week 3
Lab: Processing
Reading: Hamlet on the Holodeck, Ch 5-6

Week 4
Lab: Processing
Reading: Break – work on projects

Week 5
Project 1 critiques
Project 2 Introduction
Reading: New Media Reader – 1, 11, 49

Module 2 – Generate
Week 6
Lab: Mobile technology
Reading: New Media Reader – 3, 9, 16, 24

Week 7
Lab: Mobile technology
Reading: New Media Reader – 28, 34, 35, 36

Week 8
Tuesday, Oct 9 – FALL RECESS – No Class
Lab: Mobile technology
Reading: Break – work on projects

Week 9
Project 2 Critique
Project 3 introduction
Reading: Design of Everyday Things – Ch 1-2

Module 3 – Physical
Week 10
Lab: Physical controllers
Reading: Design of Everyday Things – Ch 3-4

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Week 11
Lab: Physical controllers
Reading: Design of Everyday Things – Ch 5-6

Week 12
Lab: Physical controllers
Reading: break – work on projects

Week 13
Project 3 critique
Final project introduction
Reading: New Media Reader – 47, 48, 51, 52

Module 4 - Iterate
Week 14
Project Work Day & Thanksgiving – No Class or Lab
Reading: Catch up on reading

Week 15
Final Project critique
Lab: Group work
Reading: No Reading

Week 16
Tuesday, Dec 4 – Last Day of Class
Thursday, Dec 6 – Final project presentations - 2:40 PM - 5:30 PM