

Course Outline

COURSE OUTLINE

Course title	Interactive Sound & Vision	Day + time	Friday 4:30 – 7:20am
Course mnemonic	ISMA 303	Start date	Sept 6 th 2011
Section number	F001	Term end date	Dec 13 th 2011
Credits	3	Location	NB 203A
Hours per week	3		
Prerequisites			
Instructor	Haig Armen	Fax	604-844-3801
Office number	Room 349 South Building	Email	harmen@ecuad.ca
Office telephone	604-844-3800 local TBA	Office hours	Email to schedule time

Website catalogue description | www.ecuad.ca

This course focuses on contemporary practices using interactive media. Projects supported in this course include interactive sound, image and video installations. The course will offer historical, theoretical and practical insights into conventions and experimental models for creating contemporary interactive visual and sound-based installations.

Course Content (for this specific offering of the course)

This course is designed to provide an introduction to creating software that is interactive, informative and appealing. Participants will be taught the fundamental principles of application design for specific environments and also given the opportunity to apply these principles in the design of your own software. The programming language, Processing will be the primary means of creating representations of the data that your software comprises of. Students will be shown how to acquire and represent external database sets in visually interesting and interactive programs, learn modern and classical programming principles and ultimately, with practice, create your own software programs without inhibition from technical knowledge.

Beyond learning how to create programs in Processing, this course also encourages course participants to apply this knowledge to create innovative interactive projects that transcend their mere programmatic implementations.

Course learning outcomes

Upon completion of the course, students should be able to:

- Understand what the possibilities may hold by using programming as a means to being creative.
- Demonstrate a comprehensive understanding of the Processing programming language in the context of a creative endeavour;
- Be able to create a variety of creative computer generated graphics in 2D and 3D space
- Develop complex data visualizations by importing database information into Processing and outputting both static and interactive presentations
- Achieve a level of understanding with the Processing programming environment that will allow for conceptual and visual experimentation.

METHODS

Instructional methods for teaching this course include:

- Faculty-led seminars, presentations, discussions, demonstrations and reviews;
- Tutorials with students, one-on-one or in groups;
- In-class studio work on projects and exercises;
- Student presentations and critiques.

Resource materials

Learning Processing:

A Beginner's Guide to Programming Images, Animation and Interaction
by Daniel Shiffman ISBN: 978-0-12-373602

Generative Art:

A Practical Guide using Processing
by Matt Pearson ISBN: 978-1-935182-62-7

Visualizing Data

Exploring and Explaining Data with the Processing Environment
by Ben Fry ISBN: 978-0-596-51455-6

Evaluation criteria

Attendance	10 %
Participation	20 %
Projects	70 %
Total	100%

Evaluation criteria definitions

The semester is divided into three projects for which the criteria remain constant:

Criteria	1	2	3
Strategy	20	20	20
Conceptual Development	20	20	20
Visual Refinement	20	20	20
Implementation	20	20	20
Project Management	20	20	20
Total Grade	100	100	100

General Policies

- Students must maintain an appropriate standard of conduct. They must demonstrate respect for all persons on the campus, and display mature conduct. All students must abide by the university's Student Conduct Policies and the

university's Harassment Policies (see Emily's A to Z). Failure by students to maintain appropriate standards of conduct may result in the initiation of disciplinary action by the university. Instructors are responsible for managing the classroom. Students whose behaviour is disruptive, challenging or intimidating will be addressed and may be excused from class. If the behaviour continues, disciplinary measures (see Emily's A to Z) will be employed.

- The instructor may modify the material or schedule specified in this outline. Any changes will be announced in class.
- Late assignments or projects may be penalized as specified in the course outline.
- It is plagiarism to present someone else's work or ideas as one's own. Plagiarism may result in failure of an assignment, of the course, and, if repeated, expulsion from the university. Assistance with the ethical practices of attribution and documentation is available from the Writing Centre or online at www.ecuad.ca/wc
- A student must provide a doctor's note to Student Services for any illness which causes the student to miss assignments, tests, projects, exams, etcetera, or for absences of more than two classes. At the discretion of the instructor, the student may complete the work for a prorated grade.
- Students must demonstrate that they understand and practice the safe use of tools and other equipment, materials, and processes used in their course projects. They must conduct themselves in a responsible manner that does not endanger themselves or others, and must adhere to area procedures regarding authorized operation of equipment, handling of materials, and use of space.
- Students with special needs or disabilities that might affect their experience or performance in class are advised to inform their instructor and contact the Disabilities Services Coordinator, located in the Counselling Centre on the second floor of the North Building, for assistance.
- Professional counselling and therapy is available at no charge to students who have concerns of a personal nature. Information shared is held in strict confidence. To make an appointment, call 604-630-4555 or email counselling@ecuad.ca or come in to the Counselling Centre.
- The Writing Centre is a service that Emily Carr provides to all students, staff, and faculty from every program area who would like to improve their reading, writing, critical thinking, and research skills. This is a free, voluntary, and confidential service. Writing Centre instructors can help you at every stage of your writing, from developing ideas to final revision. This applies to any kind of writing, from a three line artist's statement to a twenty page academic paper. Please sign up for a ½ hour appointment on the door (room 435 SB). Telephone: 604-629-4511; Coordinator: Karolle Wall.
- Email is an official means of communication with Emily Carr students by faculty, administration and other service providers on campus. Email routing will be confined to the university's internal communication network, and delivered to an officially assigned and verifiable University Email Address. All users are bound by the provisions of Emily Carr Policy 415: Code of Conduct for Appropriate Use of Information Technology Facilities and Services (outlined on the Emily Carr website and in Emily's A to Z). Instructors will outline and detail the expected extent and parameters of email use in the course in the first class, and clarify the timeframe for checking and responding to emails.
- Emails will be answered in a timely manner, usually within 48 hours after receiving the email. Emails will not, however, be answered on weekends or the day before an assignment is due if the email relates to the assignment.

Suggested Substitute: Name _____ PH# _____

Syllabus/Course schedule**Important Dates:**

September 5 - Labour Day: University closed

September 6 - Fall semester begins

October 10 - Thanksgiving: University closed

November 11 - Remembrance Day: University closed

December 12 – Last Day for 2nd, 3rd & 4th year studio classesDecember 13-16 – Review Panels: 2nd, 3rd & 4th year studio classes not running during this time, only academic classes running as normal

December 17, Fall Term Ends

December 22-31, Christmas Holidays: University closed

Cla ss	Date	Topic	Resources	Assignment
1	09/09/11	Course Introduction Introducing Basics of Processing		Sketch a Portfolio Interface
2	16/09/11	Portfolio Interface Program Mock-up and Proposal Finalization You are to deliver a mock-up with a proposal of what you would like the interface of your program to look like and how you would like it to work, at the end of the first Friday. Hardware and Software Theory 20 Minute Questionnaire No.1		
3	23/09/11	Programming Principles 20 Minute Questionnaire No.2 Programming basics: Sketches, debugging, Hello World Program, built-in functions, syntax, standardized coding practices, 2D coordinate space and various drawing functions and technique		
4	30/09/11	In-class Exercise		
5	07/10/11	Programming Concepts Covered built-in data types, variables, mathematical operators, operator precedence, randomization, flow of control,		Portfolio Interface Program Completion Your completed Design and Layout Program must be uploaded for online assessment at the end of the second tutorial session.

		conditionals, comparison operators, and compound conditionals amongst other topics.		
6	14/10/11	Introduction to: arrays, loops and iterations, user defined functions, defining regions		
7	21/10/11	Importing Data and visualization		Data Visualization Assignment Assigned
8	28/10/11	In-class Work Period & Questions		Data Visualization Assignment Completion Your completed assignment is to be deployed online for assessment by the end of the session.
9	04/11/11	Object-Oriented Programming: Building a Class and why		
10	11/11/11	Social Commentary Visualization Project		
11	18/11/11	In-class: Creating a Button Class		
12	25/11/11	In-class Work Period		
13	02/12/11	Quick presentation run-through, Review & Refinement		
14	09/12/11	Final Presentations		Kinect Visualization Project