THE UNIVERSITY OF THE WEST INDIES, ST. AUGUSTINE FACULTY OF HUMANITIES & EDUCATION DEPARTMENT OF CREATIVE & FESTIVAL ARTS

Course Code VART 2324

Course Title Film & Video 2

Degree Level 2

Semester Two - 2018/2019

Course Description VART 2324 is a deeper exploration of Video Art and Generative

Design, introducing interactivity with the real world, beyond the keyboard and mouse. Students will use open source tools and basic electronics to create and manipulate animations and imagery that respond to input from

the natural environment and human interaction.

Course Rationale From around the mid-1990's Media Literacy education focused on video

production using then state-of-the-art equipment.¹ By the end of the first decade of our 21st Century any talented individual could "take on the role of a whole production company" from a bedroom studio, writing, designing, filming, animating, compositing and even broadcasting their own work.² Audiences had become sophisticated enough to "decode" abstract video and motion design narratives as seen in movie titles and television commercials.³ 2011 saw high quality video, audio, and effects become available to consumers on mobile devices capable of uploading

content directly to YouTube, Vimeo, and social networks.⁴

Reflecting these changes in contemporary society, the next frontier in Media Literacy education is Interactivity; extending beyond merely viewing content to allow individual control of displayed or projected visuals via real world, physical interfaces. ⁵ Creative Coding provides artists/designers the opportunity to enter a cross-disciplinary realm between Art and Science facilitating interaction while engaging Computational Thinking to solve real world problems. ^{6, 7, 8} It leads artists/designers beyond dependence on expensive pre-existing software to create their own software and program instructions for creating. There has been increasing support for Creative Coding in schools of Visual Art and

Design and media arts festivals worldwide. 9, 10

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Letter To The Student Welcome to VART 2324

This course continues the exploration of new and emerging ways to create interactive New Media Artwork. You will have the opportunity to learn basic coding, electronics and circuit design, about microcontrollers, and media projection.

I have had the privilege of working professionally and teaching in the fields of Graphic Design, Television, and Motion Design for close to two decades. In 2011 my focus evolved to include New Media, Creative Coding, Generative Design, and Robotic Art.

At the conclusion of this course your understanding of Video Art and Generative Design, Info-graphics and Data-visualization will have grown, exposing new opportunities in burgeoning art-related fields.

• Interactive Video, Animation, and Generative Design

- Algorithmic Drawing, Drawing with Code
- Basic Electronics
- Working with Arduino and Processing IDE

Content

Goals/Aims

- To develop students' critical awareness of the electronics devices, software, and social media they use daily. 11
- To extend creative expression to solving problems.
- To move students' beyond being merely consumers of technology to having an impact on society.
- To remove students' dependence on expensive, pre-existing software by introducing FLOSS (open-source software).
- To challenge the idea that being 'creatively' minded is opposed to being 'scientifically' minded.¹²

Learning Outcomes

- To encourage Computational Thinking :
 - Observation
 - o Imagination
 - Abstraction
 - o Patterning
- To build the following attitudes¹³
 - Confidence in dealing with complexity
 - o Persistence
 - o Tolerance for ambiguity
 - o Ability to deal with open ended problems

Course Assignments & Assessment

Assignment 1 – Musical Line, Artful Shape, Colour Properties,	05%	
Assignment 2 – Visual Oxymoron, Zen tangle, Meaningful Dialogue	05%	
Assignment 3 – Hazy Space, Tunnel Book, Reverse Camouflage	10%	
Assignment 4 – Continuity & Correspondence, Finding/Breaking Balance	10%	
Mid-Semester Project – Finite / Infinite Control		
Semester Project	40%	
Total	100%	

Evaluation

Grades for each assignment are based on three major factors:

- Is the work conceptually inventive? Have you demonstrated a solid grasp of problem content? Did you really grapple with the ideas presented in each assignment?
- Is the composition visually compelling? Is every square inch fully engaged? Have colors been chosen well? Is the image unified? Energized? Balanced? Well crafted?
- What was the nature of your learning process? Did you use class time effectively and come prepared to learn? Did you take risks? How many solutions did you invent for each problem? How substantial were your contributions to team meetings and critiques?

Grades will be defined as follows:

≥90	Outstanding. Expansive investigation of ideas and excellent composition. All assignments completed on time, with at least one extra credit project presented. Insightful contributions to critiques. Goes substantially beyond minimum requirements
75-89	Above average. Substantial investigation of concepts and compositions; excellent craft. All assignments completed on time, insightful contributions to critiques
60-74	Average. All assignments done competently and completed on time. Strong participation in critiques.
50-59	Marginal work. Two or more late projects, limited investigation of ideas, poor craft or incoherent compositions, or excessive absences. Limited contribution to critiques.
≤49	Unsatisfactory work. Course failure due to minimal idea development, poor craft, disjointed compositions, lack of participation, late assignments, or excessive absences.

Resources

- Processing Tutorial: http://hello.processing.org
- Make: Getting Started with Processing by Casey Reas, Ben Fry. Maker Media Inc. (September 2015)
- Learning Processing: A Beginner's Guide to Programming Images, Animation, and Interaction by Daniel Shiffman. Morgan Kaufmann. (August 2015)
- Learning Processing Video Tutorials:
 https://www.youtube.com/user/shiffman/playlists?sort=dd&shelf_id=2
 &view=50
- Fun Programming (Abe Pazos):
 https://www.youtube.com/watch?v=IYrZBK4NVZw&list=PL632BB8
 C3F7E776BA
- Processing Reference: https://processing.org/reference/
- p5.js Web Editor editor.p5js.org
- Make: Getting Started with p5.js by Lauren McCarthy, Casey Reas, & Ben Fry. Maker Media Inc. (September 2016)
- Just some p5.js notes by John Kulphoff http://coursescript.com/notes/interactivecomputing/index.html
- Design Fundamentals: Notes on Visual Elements and Principles of Composition by Rose Gonnella, Christopher Navetta, Max Friedman. Peachpit Press (February 4, 2015)
- Design Fundamentals: Notes on Color Theory by Rose Gonnella, Max Friedman. Peachpit Press (May 28, 2014)
- Design Fundamentals: Notes on Type by Rose Gonnella, Christopher Navetta, Max Friedman. Peachpit Press (October 28, 2015)
- Design Fundamentals (website): http://www.design-fundamentals.com

Supplies

- USB Flash Drive, or External Hard Drive
- Arduino Uno
- One Mini Solderless Breadboard
- GitHub Account

Course Calendar

Week 1	Introduction
	Draw & Move Simple Shapes
Weeks 3	Variables, Transformations: Translate, Rotate, Scale
Week 4	Images, SVG, Sequential Images, Video
Week 5	Functions: Move and Choreograph Shapes
Week 6	Arduino, Electronics
Week 7	Mid-Term Assignment Due
Weeks 8 to 11	Work on Semester Project
Week 12	Final Project Previews
Week 13	Final Project Presentations

How To Study

Pay close attention to all class discussions. While notes and handouts may be provided, be sure to take personal note of any terminology, jargon, settings, etc. that are addressed during class time. Listen, and then do; during tutorials, pay attention to what is being demonstrated, and then imitate it on your own. Do not attempt to execute instructions while they are being delivered. Think of ways to combine and adapt the skills you learn in new ways. Ideation and Innovation are rewarded.

Grading System

Grading will adhere to the standard scale used by The University of the West Indies.

NOTES

- 1. Armstrong, Linda. "Making Filmmakers." New York Amsterdam News, vol. 96, no. 40, 29 Sept. 2005, pp. 32-33.
- 2. Webster, Mark. "Motion Graphic Designer: A Misunderstood Profession PART6." Motion Design: A Research Weblog by Mark Webster. https://motiondesign.wordpress.com/2009/02/07/motion-graphic-designer-a-misunderstood-profession-part6/. Accessed 5 August 2018.
- 3. Poynor, Rick. Interview. Designflux. 02 : graphic motion design DVD magazine. 2006.
- 4. Carlson, Jeff. "Video Action on the Ipad: Imovie 1.2 for Ios Delivers New Editing Power to Apple's Latest Mobile Devices." Macworld, no. 6, 2011, p. 86.
- 5. Biiton, N. (2011, March 16). Arduinos Provide Interactive Exhibits for About \$30. The New York Times. Retrieved from www.nytimes.com/2011/03/17/arts/design/arduinos-provide-interactive-exhibits-for-about-30.html
- 6. Pelletier, Melissa. "Teachers are Looking for Ways to Bring Computational Thinking into the Classroom". MDR Education. https://mdreducation.com/2018/07/31/teachers-computational-thinking-classroom/. Accessed 5 August 2018
- 7. Randles, Julie. "The 9 Hottest Topics in EdTech". ISTE Conference and Expo. https://www.iste.org/explore/articleDetail?articleid=674. Accessed 5 August 2018.
- 8. Wing, J. M. (2010). Demystifying computational thinking for non-computer scientists. Retrieved from www.cs.cmu.edu/~CompThink/resources/TheLinkWing.pdf
- 9. Bergstrom, Ilias and R. Beau Lotto. "Code Bending." Leonardo, vol. 48, no. 1, 02 Jan. 2015, pp. 25-13. EBSCOhost, doi:10.1162/LEON_a_00934.
- Bohnacker, Hartmut, et al. Generative Design: Visualize, Program, and Create with Processing. Princeton Architectural Press, 2012.
- 11. Knochel, Aarón D. and Ryan M. Patton. "If Art Education Then Critical Digital Making: Computational Thinking and Creative Code." Studies in Art Education, vol. 57, no. 1, Fall2015, pp. 21-38.
- 12. Amiri, Faramarz. "Programming as Design: The Role of Programming in Interactive Media Curriculum in Art and Design." International Journal of Art & Design Education, vol. 30, no. 2, June 2011, p. 200.
- 13. CSTA Standards Task Force (2011).CSTA K-12 computer science standards: Revised 2011. New York, NY: Computer Science Teachers Association. Retrieved from http://csta.acm.org/Curriculum/sub/CurrFiles/CSTA_K-12_CSS.pdf