THE UNIVERSITY OF ADELAIDE
AUSTRALIA

Think. Create. Code.
Syllabus

COURSE OVERVIEW

This course is about learning to code through the creation of artistic images and animations, resulting in your own online gallery.

Our world is becoming increasingly digitised. For many of us, barely a day goes past without recording a video, taking and editing photos, and sharing digital content across multiple applications. But how well do we understand the technology we're using, and how is digital information created and manipulated?

With many careers today involving some form of computation, there is a growing urgency for individuals to move beyond digital literacy, to understand how digital technologies work, and to develop literacy in code.

This course will help you acquire it. In this course, you will not only learn the inner workings of your digital world, but also create and manipulate images with code, creating new artworks and interactive animations.

Your images and animations will be displayed in an online Art Gallery, forming part of a vibrant learning community. You will also develop effective computational thinking skills and concepts transferable to other coding environments and programming languages.

No Prerequisites Required
Course Dates:
Start Date: 30th April 2015 0:00 AM UTC
Finish Date: 11th June 2015 0:00 UTC
Time Commitment:
Between 2 to 3 hours per week.
Assessment Due Date:
All quizzes and discussion assignments are due by 11th June 2015 0:00 UTC.
Grading Scheme:
Pass (50% or higher)
Fail (under 50%)

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WEEK 1: CREATIVE CODE - COMPUTATIONAL THINKING

LEARNING CONTENT AVAILABLE FROM: 30TH OF APRIL 2015 0:00 AM UTC

Week 1 Learning Objectives:

- Understand what you can do with Processing JS.
- Be able to qualify and express how algorithms work.
- Apply the basics of Processing JS and start coding with colour.

Week 1 Assessment Requirements:
You'll be assessed on the following items due on the closing date of the course 11th June 2015 0:00 UTC:

- Quiz 1.1 Part A (5 Points)
- Quiz 1.1 Part B (5 Points)
- Quiz 1.2 (11 Points)
- Quiz 1.3 (7 Points)
- Week 1 Assignment - Critique Your Peers 1.4 (10 Points)

WEEK 2: BUILDING BLOCKS - BREAKING IT DOWN AND BUILDING IT UP

LEARNING CONTENT AVAILABLE FROM: 7TH OF MAY 2015 0:00 AM UTC

Week 2 Learning Objectives:

- Manipulate shape attributes, and work with weights and shapes using code.
- Start using variables and expressions.
- Detail why and how variables can make our code smarter.

Week 2 Assessment Requirements:
You'll be assessed on the following items due on the closing date of the course 11th June 2015 0:00 UTC:

- Quiz 2.1 (7 Points)
- Quiz 2.2 (6 Points)
- Quiz 2.3 (7 Points)

WEEK 3: REPETITION: CREATING AND RECOGNISING PATTERNS

LEARNING CONTENT AVAILABLE FROM: 14TH OF MAY 2015 0:00 AM UTC

Week 3 Learning Objectives:

- Explain how and why using repetition can aid creating code.
- Apply your understanding of repetition and data.
- Begin using repetition to create art imagery.

Week 3 Assessment Requirements:
You'll be assessed on the following items due on the closing date of the course 11th June 2015 0:00 UTC:

- Quiz 3.1 (8 Points)
- Quiz 3.2 (7 Points)
- Quiz 3.3 (7 Points)
- Week 3 Assignment - Critique Your Peers 3.4 (10 Points)

WEEK 4: CHOICE - WHICH PATH TO FOLLOW?

LEARNING CONTENT AVAILABLE FROM: 21ST OF MAY 2015 0:00 AM UTC

Week 4 Learning Objectives:

- Discuss how to create simple and complicated choices in code.
- Detail how to create and use decision points with code.
- Apply and explain the use of repetition and choice to create art.

Week 4 Assessment Requirements:
You'll be assessed on the following items due on the closing date of the course 11th June 2015 0:00 UTC:

- Quiz 4.1 (4 Points)
- Quiz 4.2 (7 Points)
- Quiz 4.3 (7 Points)

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WEEK 5: CODE WITH CREATIVE FLAIR

LEARNING CONTENT AVAILABLE FROM: 28TH OF MAY 2015 0:00 AM UTC

Week 5 Learning Objectives:

- Discuss advantages of repetition to build patterns, optical illusions and create illustrations on your canvas.
- Apply and reflect upon the power of repetitions in code.
- Create curves, shapes, translate, rotate and scale artwork in code.

Week 5 Assessment Requirements:

You'll be assessed on the following items due on the closing date of the course 11th June 2015 0:00 UTC:

- Quiz 5.1 (5 Points)
- Quiz 5.2 (7 Points)
- Quiz 5.3 (5 Points)
- Week 5 Assignment - Critique Your Peers 5.4 (10 Points)

WEEK 6: ANIMATIONS AND ART - YOUR ONLINE FOLIO

LEARNING CONTENT AVAILABLE FROM: 4TH OF JUNE 2015 0:00 AM UTC

Week 6 Learning Objectives:

- Explain how to create basic animations with code.
- Prepare your canvas and scope your work.
- Discuss and apply basic interaction into your artwork and gallery.

Week 6 Assessment Requirements:

You'll be assessed on the following items due on the closing date of the course 11th June 2015 0:00 UTC:

- Quiz 6.1 (6 Points)
- Quiz 6.2 (6 Points)
- Quiz 6.3 (4 Points)
- Week 6 Assignment - Critique Your Peers 6.4 (10 Points)

Discussion forum etiquette and frequency

We expect you to follow the edX Code of Conduct at all times and keep your posts/responses positive on the learning forums.

Post regularly, at least once per discussion activity and be sure to respond to your peers, as instructed.