**CRCP 1310**

**Creative Coding I**

**Syllabus**

**Fall 2022**

**Instructor**

David Lively

[slively@smu.edu](mailto:slively@smu.edu)

***Office Hours:*** Zoom or by appointment.

**Teaching Assistant**

TBD

**Recommended Textbook**

Shiffman, Daniel. *Learning Processing*. 2nd ed., Burlington, Morgan Kaufman, 2015.

<https://www.amazon.com/gp/product/0123944430/>

**Course Description**

Exploring computation as a powerful generative medium, students learn the fundamentals of coding and computational thinking, including an introduction to object-oriented programming. Hands-on topics may include algorithmic drawing, procedural imaging, 2-D and 3-D animation, visualization, interactivity, computational music, and gaming.

**Course Topics**

* Processing
* Coding Pixels, Shapes, and Colors (2D Drawing)
* Variables
* Conditionals
* Loops
* Functions
* Object Oriented Programming
* Arrays
* Rotation
* 3D Drawing
* Sound and Video Processing
* Game Design

**Course Meeting Times**

***Location:*** Center for Creative Computation, Owen Fine Arts Center, Room 1190

***Time:*** Tuesdays and Thursdays, 11:00AM – 12:20PM

***Lab:*** Fridays, 12:30 PM – 1:50 PM

**Final Exam**

Friday, December 13, 2019, 8:00 AM-11:00 AM

**Grading**

|  |  |
| --- | --- |
| Exams | 30% |
| Lab Assignments | 30% |
| Quizzes | 20% |
| Final Project/CC Showcase | 15% |
| Attendance | 5% |

**Lab Assignments**

Lab assignments will be projects designed to allow students to practice coding concepts in an open, creative space. Students will have at least a week to complete each lab assignment, as well as reserved time to work on the assignments during weekly lab sessions. Lab assignment submissions that do not compile will receive an automatic grade of 25%.

**Attendance**

Attendance to both lecture and labs is required and will be counted as part of students’ final attendance grades.

**Final Grading Scale**

|  |  |
| --- | --- |
| Points | Grade |
| 93 – 100 | A |
| 90 – 92 | A- |
| 87 – 89 | B+ |
| 83 – 86 | B |
| 80 – 82 | B- |
| 77 – 79 | C+ |
| 73 – 76 | C |
| 70 – 72 | C- |
| 67 – 69 | D+ |
| 63 – 66 | D |
| 60 – 62 | D- |
| 0 – 59 | F |

**Student Learning Outcomes**

* Define essential vocabulary from the corpus of imperative and object-oriented programming concepts
* Distinguish imperative and object-oriented programming paradigms
* Apply Java and the Processing environment to create interactive, visual programs
* Analyze and deconstruct running programs into components and behavior
* Design and construct computer programs that meet functional requirements
* Compare and assess the quality of written computer programs

**Academic Honesty**

The SMU Honor Code is available at <https://www.smu.edu/StudentAffairs/StudentLife/StudentHandbook/HonorCode>

Sharing or copying of code solutions is prohibited. Any code or information pertained online should be properly cited in the assignment where the code or information is used. Failure to do so may result in a grade of zero for that assignment.

**Disability Accommodations**

Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit <https://www.smu.edu/Provost/SASP/DASS> to begin the process. Once approved and registered, students will submit a DASS Accommodation Letter to faculty through the electronic portal DASS Link and then communicate directly with each instructor to make appropriate arrangements. Please note that accommodations are not retroactive and require advance notice to implement.

**Religious Observance**

Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence.

**Excused Absences for University Extracurricular Activities**

Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work.