

TITLE - Creative Coding

Elective Outline

Elective LEADER - Nitin Patel

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1.INFORMATION

- 1.ACADEMIC YEAR- 2023-24
- 2.SEMESTER - 3
3. COURSE CODE -
- 4.TITLE - Creative Coding
- 5.CREDITS - 2
- 6.LEVEL-
- 7.SCHOOL- SCHOOL OF DESIGN & INNOVATION
- 8.PROGRAM -
- 9.AREA-
- 10.LECTURE- :TUTORIAL - :PRACTICAL - (L+T+P =2 CREDITS)
- 11.PREREQUISITES-
- 12.OTHER INFORMATION-

2.DESCRIPTION

Creative Coding is a vast subject. However this elective focuses on a very specific area of Creative Coding that is **Generative Computer Graphics**. Though the concept of Creative Coding has existed since the beginning of Computer Graphics it has become very popular in recent years due to Social Media Platforms and Generative NFTs. **In simple terms creative coding**(In context of this Elective) **is nothing but giving instructions to computers using a programming language to create still, moving or interactive graphics.** <https://p5js.org> is the online tool used in this elective for teaching and learning.

3.Teaching Approach

Students will be taught basic coding concepts good enough to be able to read and understand existing code examples. Once the students are comfortable understanding from existing code examples they will be encouraged to create a new project or develop based on an existing project. Teachers will play an active role in trouble shooting any challenge faced by students.

3.OBJECTIVE OF THE COURSE

This section describes the intention of instruction and what faculty members want to cover in the course.

Sl. No	Course Objectives
1	Encourage computational thinking by exposing students to the Concept of Creative Coding.
2	Demystify the Concept of programming languages and approaches to learn them.
3	Demystify how digital tools work underneath in Graphics Applications.
4	Exposure to the Concepts and Vocabulary of Computer Graphics.
5	Encourage students how to self learn from available resources online.

4. TOPICS

Sl. No	Topics
1	Programing language Concepts
2	Computer Graphics Concepts
3	Creative Coding

5.COURSE OUTCOMES

What the student will be able to demonstrate on successful completion of the course,
 (1=low, 2=moderate , 3=high; leave blank if not applicable)

Sl. no	Course Outcome	Remember	Understand	Apply	Analyze	Evaluate	Create
1	Ability to grasp Programing Concepts	1	2	1			

2	Ability to read from existing code examples and modify	1	2	1			
3	Ability to apply the knowledge of creative Coding and build a unique project	1	2	2	1		2

Essential Reading

<https://p5js.org/learn>

<https://p5js.org/get-started>

Recommended Reading

<https://www.youtube.com/playlist?list=PLRqwX-V7Uu6Zy51Q-x9tMWIV9cueOFTFA>

<https://www.kadenze.com/courses/introduction-to-programming-for-the-visual-arts-with-p5-js/info>

6.COURSE OFFERING

(A).SESSION PLAN

Please describe the content , activities, reading/viewing material, schedule of assessments, and the resources to be employed during the duration of the course. 30 sessions for a 2-credit course. 45 sessions for a 3-credit course. 60 sessions for a 4-credit course.

week	Sessions	Duration (hours)
1st	Introduction to Creative Coding Concept	2 hours
2nd	Introduction to programing concepts	2 hours
3rd	Introduction to programing concepts	2 hours
4th	Introduction to Computer Graphics Concepts	2 hours
5th	Introduction to Computer Graphics Concepts	2 hours

6th	Understanding and exploring the existing examples	2 hours
7th	Personal project brief approval	2 hours
8th	Personal project development	2 hours
9th	Personal project development	2 hours
10th	Personal project development	2 hours
11th	Personal project development	2 hours
12th	Personal project development	2 hours

(B). ASSESSMENT AND EVALUATION PLAN

Note: for a 3 credit course at least 3+1 and for a 4 credit course at least 4+1 assessments to be conducted in a given semester.

The assessment and evaluation plan needs to be mapped to the Course outcome(CO)listed above.(1=low, 2=moderate, 3= high; leave blank if not applicable)

Sl. No	Type of Assessment	Weightage	CO1	CO2	CO3
1	Coding basics	30%	2		
2	Clarity of Computer Graphics principles	30%	1	2	1
3	Final output	40%	1	2	2

Academic Integrity and Plagiarism

1. Academic integrity is a fundamental principle in education, emphasizing honesty, integrity, and ethical behavior in all academic pursuits. Plagiarism, in particular, is considered a serious violation of academic integrity.

2. Definition of Plagiarism

2.1. Plagiarism is the act of presenting someone else's work, ideas, or words as your own without giving proper credit or acknowledgment to the original source. It involves the unauthorized use, copying, or imitation of someone else's intellectual or creative

work and presenting it as your original creation. Directly copying and pasting text or images from a source without proper citation. Copying word-for-word from a source without using quotation marks and proper citation. Presenting your own previously submitted work, in whole or in part, for a new assignment without permission from the instructor. Submitting work that is produced collaboratively but presenting it as an individual effort without indicating the contributions of others.

3. Why Plagiarism is a punishable offense?

3.1. Plagiarism undermines the fundamental principles of academic integrity, which include honesty, fairness, and the pursuit of knowledge. It goes against the core values of the learning process and compromises the integrity of the learning process.

- i. Plagiarism involves stealing someone else's ideas, work, or intellectual property without giving proper credit or permission. It disregards the intellectual efforts and contributions of others, denying them the recognition and respect they deserve.
- ii. Plagiarism inhibits the learning process. When students engage in plagiarism, they miss out on the opportunity to conduct research, critically evaluate information, and develop their analytical and writing skills. Plagiarism hinders personal growth, intellectual development, and the acquisition of knowledge.
- iii. Plagiarism creates an unfair advantage for individuals who engage in it. By presenting someone else's work as their own, plagiarizers can gain higher grades, accolades, or opportunities that they have not earned through their own efforts. This undermines the fairness of academic evaluation and the recognition of genuine achievements.

4. How to avoid plagiarism and maintain Academic Integrity

4.1. Start your assignments early to allow sufficient time for research, writing, and proper citation. This will help you avoid rushing and making unintentional mistakes that could lead to plagiarism.

4.2. When conducting research, make sure to record all necessary information about your sources, including author names, publication dates, page numbers, and URLs. This will make it easier to provide accurate citations later on.

4.3. Whenever you use someone else's ideas or information, give proper credit by citing the original source. This includes paraphrased content, summaries, statistical data, or any unique concepts that are not common knowledge.

5. Punishment for Plagiarism and violation of Academic Integrity

5.1. The Student may receive an academic warning or reprimand. This serves as a formal notification that they have violated academic integrity policies and serves as a reminder of the importance of ethical conduct. It may not have immediate academic consequences but serves as a record of the offense.

5.2. In more serious cases, particularly for repeated offenses or severe instances of plagiarism and violation of academic integrity, the student will be discharged from the course.

6. References

6.1.<https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism>

6.2.<http://www.princeton.edu/pr/pub/integrity/pages/plagiarism.html>

6.3.<https://www.univ.ox.ac.uk/wp-content/uploads/2017/10/Plagiarism-and-Academic-Integrity.pdf>

Name:

Signature of the Faculty

Name:

Signature of the Program Head

Name

Signature of the Dean