CS 214 Introduction to Game Design and Development

Summer 2024

Course Credits: 4
Contact Hours: 56 hours
Instructor: TBA
Email: TBA

COURSE OBJECTIVES

Game design is a unique blend of artistic creativity and technical expertise. This course introduces the fundamentals of game design and development, including strategy, creativity, prototyping, iteration, testing and implementation. It also covers basics technical skills and coding languages essential for game development. This course follows a project-based approach, addressing both design and technical aspects through individual assignments and group projects, equipping students with the skills needed to bring their game ideas to life.

Upon completion of this course, students will be able to:

1. Comprehend the fundamental game design principles, including mechanics, dynamics, aesthetics, and player engagement.
2. Develop technical proficiency in game design and development.
3. Apply the concepts, tools, and workflows learned throughout the course in designing and implementing simple digital games.
4. Gain experience working individually and collaboratively on game development projects.
5. Critically evaluate the success of game designs.

PREREQUISITES

CS120 Introduction to Computer Science I

GRADING

Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
Assignments	20 Points
Quizzes	10 Points
Group Projects	40 Points
Final Project & Presentation	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$.

We reserve the right to make adjustments to the overall grading policy.

COURSE MATERIALS

Required Texts:

Tracy Fullerton, ***Game Design Workshop: A Playcentric Approach to Creating Innovative Games***, 4th Edition, A K Peters/CRC Press, 2018.

Recommended (Optional) Texts or Other Materials:

Steve Swink, ***Game Feel: A Game Designer's Guide to Virtual Sensation***, 1st Edition, CRC Press, 2008

COURSE TOPICS

MODULE	TASKS
Module 1	**Topics:** Topic 1: Introduction to Game Design and Development Topic 2: Understanding the Game Industry Topic 3: Game Mechanics and Gameplay Topic 4: Storytelling and Narrative Design **Assessments:** Assignment#1

Module 2	**Topics:** Topic 5: Game Engines Topic 6: Visual Design: Visual Aesthetics and Art Styles Topic 7: User Interface (UI) and User Experience (UX) Design Topic 8: Sound Design **Assessments:** Group Project#1 Quiz#1
Module 3	**Topics:** Topic 9: Game Development Tools and Platforms Topic 10: Designing a Game: Conceptualization Topic 11: Prototyping Topic 12: Digital Prototyping **Assessments:** Assignment#2
Module 4	**Topics:** Topic 13: Playtesting Topic 14: Functionality, Completeness, and Balance Topic 15: Fun and Accessibility Topic 16: Iterative Design **Assessments:** Group Project#2 Quiz#2
Module 5	**Topics:** Topic 17: Working as a Game Designer: Team Structures Topic 18: Stages of Development Topic 19: Selling Yourself and Your Ideas Topic 20: Final Project Presentations and Reflections **Assessments:** Final Project and Presentation

ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.

2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

LEARNING REQUIREMENTS

1) Late assignments are not acceptable and are subjected to grade deductions.
2) Assignments submitted in the wrong format will be counted as not submitted.
3) Failure to submit or fulfill any required course component results in failure of the class.
4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

TECHNOLOGY POLICY

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (e.g., note taking, reading course documents).

ACEDEMIC INTEGRITY POLICY

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

DISABILITY ACCOMMODATION

Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.