LINC 60K: GAME-BASED LEARNING

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2023
Units:	1
Hours:	1 lecture per week (12 total per quarter)
Advisory:	Basic computer skills and knowledge of Macintosh or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC 243.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- Define the elements and impacts of games and game-based learning for different learning groups
- Analyze existing games and student-created games for their potential for student learning
- Design an educational game that includes learning objectives

Description

Intended for educators who want to explore computer-based and internet games that engage students in science, engineering, and other content learning. Participants analyze existing games for their educational value, create their own simple educational game, and determine how students learn when they create a game. Participants use a systematic method of game design to identify goals, develop a game, and evaluate the game's effect on learning outcomes.

Course Objectives

The student will be able to:

1. Analyze existing games and student-created games for their potential for student learning
2. Design an educational game that includes learning objectives
3. Develop the content assets that were blueprinted in the design phase
4. Beta test the game play environment and interactions
5. Plan for classroom implementation with learners, including method of delivery, procedures, resources, and scaffolding activities
6. Determine and develop formative and summative evaluation of the project

Course Content

1. Analyze existing games
   a. Identify instructional goals, learning environment, and learner's existing knowledge and skills
   b. Analyze existing games for value in integrating into the curriculum
   c. Analyze tools and resources for student-created games
2. Design an educational game
   a. Identify learning objectives
   b. Select game design methods
   c. Design game assets or objects
   d. Design interaction of assets
   e. Design graphical user interface
3. Develop content assets
   a. Create storyboards
   b. Write content
   c. Design graphics
   d. Review and revise
4. Beta test game design
   a. Evaluate functionality and logical flow
   b. Evaluate user interface
   c. Evaluate game play for fun and engagement
5. Implement game with learners
   a. Set up method of delivery and procedures
   b. Prepare the learners, including training them on new tech tools
   c. Ensure that all resources are in place
6. Formative and summative evaluation of the project
   a. Formative assessment: peer and teacher reviews
   b. Summative assessment
   c. Student self-reflection

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. When offered on/off campus: Lecture room equipped with projector, whiteboard, and a demonstration computer connected online. Computer laboratories equipped with computers or laptops with internet access.
2. When taught via the internet: Students must have current email accounts and ongoing access to computers with web browsing capability and internet access.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Developing a game-based project
Presenting the project to peers for feedback
Making constructive contributions to class discussions
Providing peer reviews to other class members showing their own understanding of the class content

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture presentations delivered in student-centered learning style, during which students take notes, follow demonstrations, or complete an activity

Facilitated discussions of live presentations, readings, or video presentations
Student presentations in small group and whole class situations

Representative Text(s) and Other Materials

Instructor-assigned notes, materials, and resources, including instructional materials, open education resources, multimedia, and websites.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Reading assignments include analysis of texts, selected examples, and student projects
2. Writing assignments include a course project and multiple developmental projects, reflections, discussion responses, and peer feedback on projects
3. Outside assignments include project planning and development, participation in online peer collaboration activities, and project development through an iterative process

When taught online, these methods may take the form of multimedia and web-based presentations. Assignments will be submitted online as well.

Discipline(s)

Instructional Design/Technology