ISS400   Game-based Learning
1st and 2nd quarters, Senior

Instructor	Ivan Lombardi
Style of Class	Lecture
Number of Credits	2
Day and Period	To be advised

Course Description

This course is designed as a video game and will make students experience and reflect on the potential and drawbacks of using video games in education, as well as discover, analyze and eventually design gamification processes. Students will be offered a choice of tasks to undertake in order to personalize their approach to the course content and reach individual learning outcomes.

Course Objectives

Students will:
1. investigate the workings of video games and the emotions they originate in their players;
2. become familiar with research in the field of game-based learning;
3. learn about the use of video games and game-like processes in education;
4. reflect on their experience as gamers and what they have learned while playing;
5. design a game-enhanced experience for a product or project of their choice.

Prerequisites

None.

Class Materials

Reading materials will be distributed in class at the beginning of each quarter. Additional individual materials will be made available to account for each student's personal area of interest.

Course Methods

Like in role-playing video games, students in this course are asked to undertake and complete missions related to the course content. Missions will range from independently researching given topics, to playing and analyzing video games and uses of gamification, to reflecting on personal experiences that involve learning with games. Each week the instructor will facilitate the introduction to a new topic and set up a list of missions that students can choose from to personalize their learning experience. Being the course fundamentally student-driven, students are expected to complete their missions and report on their learning achievements in class, to contribute in generating class discussions, and to evaluate their own performance and findings.

Evaluation/Assessment

For every mission they complete, students will gain experience points that will add up to an amount determining a large part of their final grade for the class. Students are in complete control of the way they acquire experience points, via weekly missions, individual research, and personal initiatives relating to the course content. At the end of each quarter, student will tackle a more difficult challenge, called *Boss Fight*, which can vary in nature and determines a second part of the grade. Lastly, students' self-evaluations will be taken into account.

Grading

60%	Weekly and individual missions
20%	Boss Fight
20%	Self-evaluation

Course Schedule

    Week 1: Onboarding and Introduction

        Tutorial week: students learn about the course methods, preview the course content and start choosing how to shape their individual learning experience.

Week 2: What Exactly is a Game?

        An overview of the elusive nature of games, the struggle of defining what a game is, and the many forms a game can take, with emphasis of video games and their structure(s).

Week 3: Your Brain on Video Games

        Readings, videos, and reflections on the positive effects of gaming on the human brain, as well as on the negative consequences of their abuse.

Week 4: Your Mind on Video Games

        Video games and emotions: an overview of how and why virtual experiences in video games are felt so real, and a discussion of video games as learning machines.

Week 5: 35 Years of Teaching with Video Games

        The history of educational video games from the early adoption in the 80s to today's emphasis on "serious games", and an overview on current potential and limitations of the medium.

Week 6: The Struggle of Young Media

        A research- and experience-based discussion on why video games are struggling to find their way into institutional learning settings.

Week 7: Video Games in Language Education

        A focus on research and use of video games in language teaching and learning, moving from early adoption, through hype and to insight.

Week 8: Boss Fight

        Final mission related to the content of the first quarter.

Week 9: Why Do We Play Video Games?

        An analysis of the notion of "fun" and how it relates to player engagement, and an insight of how "fun" is built into video games by game designers.

Week 10: Theories of Motivation and Video Games

        A Self-Determination Theory analysis of how the most successful video games motivate their players and keep them in the state that *Csíkszentmihályi* describes as "flow".

Week 11: The Rise of Gamification

        How gamification, or the use of game elements in non-game contexts, came to be and why and for which purposes it's now a global trend in business, education, and healthcare.

Week 12: Everyday Gamification: Online and Offline

        Analysis and discussion of gamified experiences on the Web and in the tangible world.

Week 13: Gamification in Education

        Analysis and discussion of gamified experiences in online education and in schools and universities, including the University of Fukui (cfr. The Fukudai Hero project).

Week 14: Designing Gamified Projects

A walkthrough on how to incorporate game elements in pre-existing real-life non-game experiences, and how to use said game elements to generate, maintain, and strengthen the designer's desired effects.

Week 15: Boss Fight

Final mission related to the content of the second quarter.

Week 16: Debriefing

Evaluation and reflections on the game-enhanced nature of the course, with feedback and a collection of suggestions for improvement.

Preparation and Follow-up

- Preparation: Read the relevant portions of the reference materials (about one hour)
- Follow-up: Review the content of the class and note any points you are not sure of (about one hour)