Syllabus
Course description

Course title	Game Design
Course code	89144
Scientific sector	MAT/01
Semester	2
Academic Year	2024-2025
Credits	6
Day and time of the lectures	Monday 5 p.m.
Place or/and online	Bolzano/Bozen
Total lecturing hours	36
Attendance	Highly recommended
Prerequisites	None – no programming experience required

Specific educational objectives	The students will understand the process of designing a game following iterative cycles. In this process, it will be discussed important topics such as the conception of the initial version of the game and techniques for playtesting. The students will also learn the main mechanics and different types of player interactions that can used in the games and how they can be combined in the creation of an original game. During the course, the concepts of game design will be exercised with analogic games, but they can be applied also for digital or hybrid games. After the course, the students will be able to apply the concepts learned for different purposes, such as developing games for entertainment, gamifying a process, and designing serious games for didactic purposes.

Lecturer	Eduardo Guerra Office I1.08, eduardo.guerra@unibz.it, +39 375 6071913. https://www.unibz.it/en/faculties/computer-science/academic-staff/person/43879-eduardo-martins-guerra
Scientific sector of the lecturer	ENG-INF/05
Teaching language	English
List of topics covered	- Different types of games and modern analogic games - Iterative game design process - Playtesting techniques and strategies - Game mechanics and game balancing - Gamification and application of serious games

	• Representing concepts in games
Teaching format	Frontal lectures combined with practical exercises and labs

Learning outcomes	**Knowledge and understanding** • To have a thorough knowledge of the main fundamentals techniques and methods of game design • To have a thorough knowledge of the main mechanics used in games **Applying knowledge and understanding** • Be able to apply the knowledge about game mechanics to develop new games. • Be able to understand and identity the game mechanics of existing games. **Making judgments** • Be able to compare different alternative game mechanics by the effect that they will have in a game. **Communication skills** • Present game rules and collect feedback from a playtesting session. • Present a game to a publisher using a sell sheet. **Learning skills** • Have developed learning skills to extract information of game mechanics from existing games. • Have developed learning skills to understand the feedback provided in a playtesting session.

Assessment	Assignments done during the course will worth additional points for the students. Final project work and oral presentation: the student should present the prototype of a game (which can be a board game or a digital game) and answer questions about the decisions made and the process used for its development. It can be made individually or by groups of 2 to 4 students.
Assessment language	English
Evaluation criteria and criteria for awarding marks	The evaluation will consider: the game developed; the development process used by the student; the presentation of the rationale behind the decisions made; and the answers given to the questions.

Required readings	
Supplementary readings	Engelstein, G., & Shalev, I. (2019). *Building Blocks of tabletop game design: An encyclopedia of mechanisms*. CRC Press. Schell, J. (2008). *The Art of Game Design: A book of lenses*. CRC press. Daniela, L. (Ed.). (2021). Smart pedagogy of game-based learning. Springer Nature. Schreiber, I., & Romero, B. (2021). Game balance. CRC Press. Zimmerman, E. (2022). The rules we break: Lessons in play, thinking, and design. Chronicle Books. Bogost, I. (2008). The rhetoric of video games (pp. 117-40). MacArthur Foundation Digital Media and Learning Initiative. Barney, C. (2020). Pattern language for game design. CRC Press. Barney, C. A. (2021). Application of pattern language for game design in pedagogy and design practice. Information, 12(10), 393. Holopainen, J., & Björk, S. (2003). Game design patterns. Lecture Notes for GDC. Rogers, S. (2014). Level Up! The guide to great video game design. John Wiley & Sons.