INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Design Documents and Storyboard			Field of study	Game Design		
Bachelor in	Game Design			School	School of Public Management, Communication and Tourism		
Academic Year	2023/2024	Year of study	2	Level	1-2	ECTS credits	6.0
Type	Semestral	Semester	2	Code	8309-801-2202-00-23		

Workload (hours)	162	Contact hours	T	-	TP	30	PL	30	TC	-	S	-	E	-	OT	-	O	-

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s)	Barbara Costa Vilas Boas Barroso, Inês Filipa Brasil Lagarto

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Demonstrate ability to build procedural documents for games pre-production;
2. Develop the structure of digital games (gameplay and game mechanics);
3. Master skills for the design and structuring of storyboards;
4. Understand and employ, in order to magnify the results, the inter-flow between design document and storyboard;

Prerequisites

Before the course unit the learner is expected to be able to:
Recognize and use in a practical context the fundamental elements of a game.

Course contents

Elements of game design. The game's industry and the work teams. The game design process. Design documentation. Project methodology. Gameplay styles and design. Mechanics design. User Experience and interface design. Level design. Visual design. Pre-visualization. Art documentation.

Course contents (extended version)

1. Elements of game design:
   - Formal;
   - Dramatic;
   - Dynamic.
2. The game's industry and the work teams:
   - Platforms and game modes;
   - Goals and genres;
   - The player(s);
   - Aesthetics;
   - The role of the game designer;
   - Team roles and responsabilities.
3. The game design process:
   - Development stages;
   - Documentation;
   - Prototyping;
   - Playtesting;
   - Pitch.
4. Project methodology:
   - Common terminology;
   - Components (world, system, content, writing, level, interface);
   - Constraints;
   - "Player-centric" perspective;
   - Additive and subtrative design.
   - MDA design;
   - Iterative process;
   - Variations in the design process.
5. Gameplay styles and design:
   - Gameplay as emergent caracteristic;
   - Gameplçay and genres;
   - Challenges hierarchy;
   - Luck, skill, stress, difficulty;
   - Actions.
6. Mechanics design:
   - Rules;
   - Emergence and progression;
   - Internal economy;
   - Common mechanisms;
   - Design patterns;
   - Balance.
7. UX and interface design:
   - Practical, experiential, significant and valuable aspects of interacting with a game;
   - Usability for games;
   - Interface types;
   - Camera;
   - HUDs;
   - Icons;
   - Controls.
8. Level design:
   - Structure;
   - Time;
   - Space;
   - Maps.
9. Visual design:
   - The role of concept art;
   - The grammar of concept art;
   - Functionality analysis;
   - Point of view.
10. Pre-visualization:
    - Storyboards;

Course contents (extended version)

    - Animatics;
    - Vertical slices.
11. Art documentation:
    - Visual treatment;
    - Work pipeline;
    - Considerations on the game dynamics.

Recommended reading

1. Adams, E. , & Dormans, J. (2012). Game mechanics: Advanced game design. Berkeley: New Riders. [ISBN: 9780321820273]
2. Macklin, C. , & Sharp, J. (2016). Games, Design and Play: A detailed approach to iterative game design. Addison-Wesley Professional. [ISBN: 978-0134392073]
3. Mitchell, B. L. (2012). Game design essentials. Indianapolis: Wiley & Sons. [ISBN: 9781118159279]
4. Pardew, L. (2005). Beginning Illustration and Storyboarding for Games. Boston: Thomson. [ISBN: 9781592004959]
5. Upton, B. (2017). Situational game design. New York: AK Peters and CRC Press. [ISBN: 9781138031814]

Teaching and learning methods

Lecture method, using different materials, enabling the transmission of structured and continuous knowledge . Interrogative method, systematically questioning the students. Active method, in which students must take the initiative in problem solving and project development in order to allow greater consolidation of knowledge.

Assessment methods

1. FINAL EVALUATION - with Game Jam: - (Regular, Student Worker) (Final, Supplementary, Special)
    - Development Topics - 10% (Module 1: theoretical-pratical exercises solved during the semester (individual).)
    - Practical Work - 10% (Module 2: visual portfolio (individual).)
    - Development Topics - 10% (Project developed during Interdisciplinary Week.)
    - Projects - 25% (M1 + M2: project #1 [design documentation, prototyping, playtesting, assets, pitch] (individual).)
    - Projects - 10% (M1 + M2: project #2 [project developed during a Game Jam].)
    - Projects - 35% (M1 + M2: project #3 [capstone project between the curricular units of the semester] (group).)
2. FINAL EVALUATION - without Game Jam: - (Regular, Student Worker) (Final, Supplementary, Special)
    - Development Topics - 10% (Module 1: theoretical-pratical exercises solved during the semester (individual).)
    - Practical Work - 10% (Module 2: visual portfolio (individual).)
    - Development Topics - 10% (Project developed during Interdisciplinary Week.)
    - Projects - 35% (M1 + M2: project #1 [design documentation, prototyping, playtesting, assets, pitch] (individual).)
    - Projects - 35% (M1 + M2: project #3 [capstone project between the curricular units of the semester] (group).)

Language of instruction

1. Portuguese
2. English

Electronic validation

Barbara Costa Vilas Boas Barroso, Inês Filipa Brasil Lagarto	Ines Monteiro Barbedo de Magalhaes	Carlos Sousa Casimiro da Costa	Luisa Margarida Barata Lopes
29-05-2024	29-05-2024	31-05-2024	04-06-2024