COURSE SYLLABI:
Learning 2 Play 4 the Future

Course Title: Educational Game Design for Future Teachers

Course audience: teachers in training

Course Aim: To equip students with the knowledge and skills necessary to design, develop, use and evaluate educational games that effectively support learning across cognitive, social, and emotional domains.

Course Objectives: By the end of this course, students will be able to:

1. Define and distinguish Game-Based Learning (GBL), Gamification Techniques (GT), and Educational Game Design (EGD).
2. Apply basic and advanced game design principles in educational contexts.
3. Design educational games using instructional design models (e.g., ADDIE, SAM).
4. Evaluate the educational value and usability of games and game prototypes.
5. Collaborate effectively across disciplines and within a team to develop a game prototype.
6. Integrate inclusive and accessible design elements into their games.
7. Understand market needs and develop strategies for classroom integration and crowdfunding.

Course output options

A. Tabletop game prototype + final presentation + crowdfunding campaign (optional) + publication of the game on Gamifactory (optional) or
B. Card game prototype + final presentation + crowdfunding campaign (optional) + publication of the game on Gamifactory (optional) or
C. Digital game prototype + final presentation + crowdfunding campaign (optional) + publication of the game on Gamifactory (optional)

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Learn to Play for the Future

Course Modules and Weekly Breakdown:

Week 1: Introduction to GBL & EGD

- Definitions and distinctions (GBL, Gamification, EGD)
- Historical and theoretical background
- Motivation Theory (Self-Determination Theory, Flow)
- EGD basics 1 - how to design an educational game
    - key elements of educational games

Week 2: Instructional Design and Pedagogy

- EGD basics 2
    - Overview of instructional models (ADDIE, SAM)
    - Designing for learner engagement (UX, feedback loops)
    - Game design tools (MIRO, Figma, Trello, Canva, Unity...)

- Ideation and Educational Relevance
    - Brainstorming techniques and idea validation
    - Checklist for educational relevance
    - Researching educational topics and learning goals

Task/milestone: teams will have to come up with game ideas + format of the game

Week 3: Educational Tabletop Games

- Case studies and experiential session
- Mechanics and components that support learning

Task/milestone: teams will have to begin working on a first prototype of their game

Week 4: Educational Card Games

- Exploration of simplicity, portability, and engagement
- Designing for rapid iteration

Task/milestone: teams will have to showcase a first ready prototype of their game

Week 5: Educational Digital Games

- Case studies of successful digital learning games
- Tools, platforms, and development cycles

Task/milestone: teams shall test their first game prototypes and incorporate changes per received feedback.

Week 6: Inclusive and Accessible Design

- Designing for diverse learner needs (SEN, cultural contexts)
- Language and emotional considerations

Task/milestone: teams will continue improving their game prototypes (incorporating testing feedback)

Week 7: Crowdfunding and Market Integration

- Campaign planning and storytelling + marketing
- Understanding teacher/parent needs
- Publishing options (Gamifactory, self-publishing)

Task/milestone: teams will finalise the work on their game prototypes and test them.

Week 8: Final Presentations and Peer Evaluation

- Every participant plays and evaluates peer games
- Presentation of design journey and educational rationale

Task/milestone: final game prototype showcase (each team can play every game developed) + jury evaluates each team game

Mentoring: each student team will have a dedicated mentor from among the project/institution staff. Teams will be able to access mentors for 1 hour each week (not mandatory - highly recommended).

Post-Course Activities:

- International colloquium
- Optional crowdfunding campaign launch (co-funded by project budget)

Assessment Methods:

- **Formative:** Participation
- **Summative:** Final game prototype, expert feedback

Key Teaching Methods:

- Interactive workshops
- Case studies and experiential learning
- Game Jams
- Group projects - Project based learning
- Self-paced game development with 1 on 1 mentoring

Learning Materials:

- Bowman, Sarah L. (2010). The Functions of Role-playing Games
- McGonigal, Jane (2010). Reality is Broken
- McGonigal, Jane (2023). Imaginable
- Fullerton, Tracy (2024). Game Design Workshop
- Kalmpurtzis, George (2018). Educational Game Design Fundamentals
- Koster, Raph (2013). A Theory of Fun for Game Design
- Gee, James Paul (2007). What Video Games Have to Teach Us About Learning and Literacy
- Csikszentmihalyi, Mihaly (1990). Flow
- Did, Marijam (2024). Everything to Play for
- Game Design Toolbox by Impact Games (TBA, 2026)

Evaluation of the Course:

- Alignment and clarity of learning goals (through questionnaires)
- Depth of pedagogical integration (reflection journals)
- Inclusivity and accessibility (checklists and self-reports)

- Creativity and usability of games (expert/jury review of the games at the end of the course)
- Quality of critical reflection and self-assessment (focus groups/interviews)

Ideal Number of Participants: 20