

The Well-Trained Mind Academy

Game Design

Required Text:

- Daniels, Jesse. *Make Your Own Board Game: Designing, Building, and Playing an Original Tabletop Game*. Rockport Publishers, 2022.

Recommended Materials:

- Notebook/sketchbook for design concepts
- Prototyping supplies (cardboard, markers, dice, tokens, etc.)
- Access to a google account for sharing design concepts, slides, etc.

Notes:

- *Students must have access to a working printer able to print multiple pages.*
- *All tests will be taken on paper and administered with a proctor.*
- *Students must be able to save and upload documents to Blackboard in PDF format.*

Prerequisite Skills: Students must be comfortable with and have the tech capability to use their microphone and video to present their ideas in a class setting.

Course Description: This high school elective course is all about diving into the math and science behind game design, with a special focus on creating original tabletop games. Students will learn the entire process—starting with brainstorming ideas and moving through designing, prototyping, testing, and refining their own games. The course combines lectures, readings, playtesting, and group work to help students understand key concepts like game mechanics, probability and number theory, player interaction, theme, and balance. By the end of the course, students will have created a playable prototype of their own board game and gained the skills to develop future game ideas.

Grading Breakdown:

Math Analysis: (20%) - Blackboard assignments to practice and master the mathematical concepts in game design.

Game Design Concept (10%) - Written proposal including mathematical concepts used and initial concept art for the board game.

Prototype (20%) - A playable prototype of the student's game to be presented for class testing.

Playtesting & Iteration (15%) - Participation in playtesting other students' games and incorporating feedback into your design.

Final Project (25%) - A fully developed and refined board game, including rules, prototype, and a presentation.

Class Participation (10%) - Engagement in discussions, playtests, and group activities. This will include weekly assignments.

Assignments:

- All assignments must be uploaded to Blackboard in digital format. Therefore, emailed or texted assignments will not be accepted.

Sample Schedule:

Week 1: Introduction to Game Design

- **Topics:** Overview of tabletop game design, key terminology, and core principles (mechanics (mathematical principles), dynamics, and aesthetics).

Week 2: Understanding Game Mechanics

- **Topics:** Core mechanics, actions, and player decisions. Understanding what makes a game fun and engaging.

Week 3: Theme and Narrative in Game Design

- **Topics:** The importance of theme in creating player engagement and how theme ties into mechanics.

Week 4: Prototyping and Materials

- **Topics:** Turning concepts into physical prototypes using basic materials and tools.

Week 5: Game Balance and Player Interaction

- **Topics:** Balancing difficulty, fairness, and interaction among players. How to create a challenging yet fun experience.

Week 6: Playtesting and Feedback

- **Topics:** The importance of iterative playtesting and feedback loops.

Week 7: Advanced Game Design Elements

- **Topics:** Expanding on more complex elements such as multiple game modes, expansion ideas, and narrative-driven games.

Week 8: Game Presentation and Final Playtests and Reflection

- **Topics:** Present your game, including clear rules, visually appealing prototypes, and playtesting strategies.