

GSAS 2510 - Introduction to Game Design

Syllabus, Fall 2022

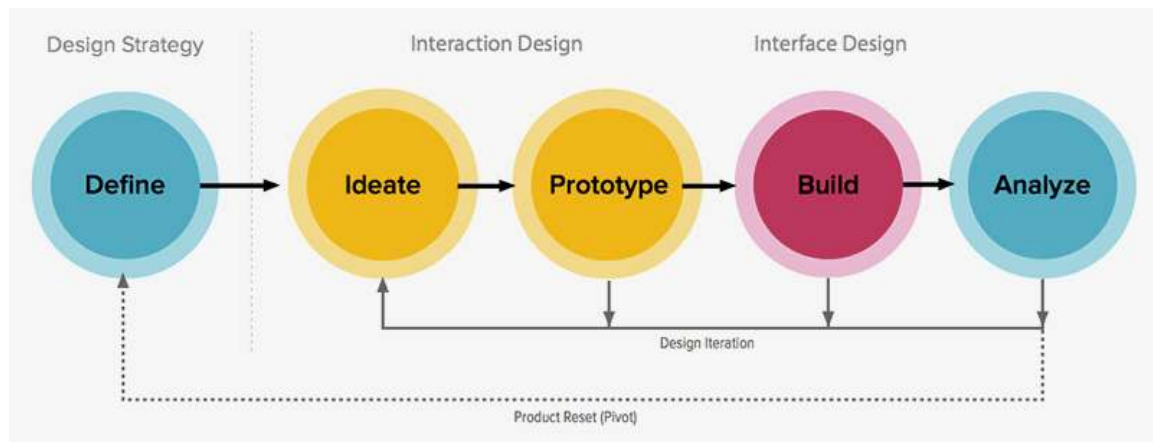
Professor: Dr. Jim Malazita (malazi@rpi.edu)

Office: West 403, Office Hours: Mondays 1-2 on WebEx and by Appointment

TA: Jerry Zheng (zhengp3@rpi.edu)

Office: West 413, Playtesting Hours: Wednesdays 3-5 in person

Introduction:



Games are user experiences, and game designers are those who craft, develop, and (de)construct those experiences. This course will help refine your game design ability by: 1.) broadening the range of activities you consider to be “game design,” 2.) providing you with analytic lenses to deconstruct and understand the affordances, constraints, successes, failures, and social dimensions of existing games 3.) incorporating themes, mechanics, and abstractions from “non-game” media and texts into game design, 4.) training you in effective reading, writing, and communication skills in order to better collaborate with interdisciplinary teams, work with players, and pitch game ideas, and 5.) teaching you how to listen to—and not just hear—your players, users, teammates, clients, and self.

The best way to learn how to design games is to design games. The major mechanic of the course will be the use of game design processes to rapidly iterate and playtest game prototypes. As such, this course will be an intensive marathon in game design, where students will work both as individuals and in teams to develop 6 polished early-stage concepts or prototypes (and their accompanying documentation) by the end of the semester. Students will also reflect upon the philosophical and social dimensions of games, and how to strategize for those dimensions in game design.

Some of the core principles that will be practiced in each assignment are:

Brainstorming and mindmapping – tools and methods for generating lots of ideas, identifying promising ideas and combinations of ideas, being comfortable with generating more bad ideas than good, combating early stage lock-in and brute force design.

“Paper” Prototyping and Playtesting – your ideas become real by building and testing them. This means that you can’t plan out all of the best parts of your game—or prevent the bugs in your game—in your head. Paper prototyping allows you to cheaply and quickly test different mechanics, narratives, and aesthetics for your game with different audiences. The more playtesting you do, and the more different kinds of audiences you playtest with, the more you will learn about your *own game*, and the more you can push it to be better. Remember, the point of playtesting is to see where and how your game succeeds and fails, so embrace all the failures and problems your game will inevitably have.

Holographic Essential Experiences – All games have essential experiences: feelings, memories, callbacks, and ludonarratives that players come to know while playing the game. Some of the strongest game designs have a clear vision of their game’s essential experiences, and develop them *holographically* throughout the game. To design holographically means to infuse your game’s essential experience throughout every element of the game, so that if the game were “shattered,” players could still feel the essential experience in each shard. For example, if an essential experience of a game were “sadness,” players could experience sadness by reading the narrative, viewing the art, and manipulating the game’s mechanics. The essential experience of sadness is heightened and made more meaningful through the combinations of these experience-inflected parts of the design.

Your Identity as a Designer – No matter your role on later design teams (programmers, artists, writers, musicians, etc.), you are in part responsible for creating the essential experience of the game for your players—doubly so when following the principles of holographic design. This means always foregrounding the players’ experiences in your work, developing your own voice as a designer, and learning to listen to players and other designers of your game. It also means that you have a stake in the overall design of your game. In this class, we will work against the trend towards modularization in game development—the idea that everyone has a specific role to play, and a specific part to build, that are then assembled to make a game. Instead, every member of the team is part of the development of the game’s design and playtesting. Even when group members inevitably work separately, they are always working clearly towards the essential experiences of their games.

Overall, this is a labor-intensive course that requires a sustained effort throughout the semester. Students will need to start on their projects early, reach out to playtesters and their group members efficiently and empathetically, and dedicate adequate time to polish, iterate, and hone their game design concepts throughout the course. In general, it is expected that you will spend between 8 to 10 hours every week outside of class time on your reading, prototyping, playtesting, and writing. Always be thinking about your portfolio.

Texts:

The Art of Game Design, A Book of Lenses, Second Edition, by Jesse Schell

Situational Game Design, by Brian Upton

Other readings posted to LMS

Materials:

Unlined sketchbook

Colored Pencils, Colored Markers

Prototyping Materials as Needed (cardboard, dice, paper, tape, glue, popsicle sticks, pipe cleaners, and others)

Assignments and Grade Breakdown:

Design Challenges:

Fix a Game – 10 points

Affordances – 10 Points

Grow-A-Game – 20 Points

Papering the Digital – 30 Points

Hybrid Game Design – 30 Points

Total: 100 points

All text portions of projects (papers, write-ups, design documents) must be submitted to the course's Blackboard page before the start of class on the due date. Papers submitted must be in **.pdf format**.

Project Descriptions:

For every Design Challenge Assignment, the student or group will turn in each of the following:

1. The actual presentation prototype game materials (in class)
2. A title page that gives the name of the game, the names of each group member (or individual), and an “abstract” that describes the game in three or four sentences
3. A set of complete game rules, written in accessible language (gender-neutral language, and must be written in a way that allows players to “pick-up-and-play”)
4. “Beauty shots” of the “final” game pieces, as well as the final game being played, with image captions and descriptions under each image
5. Photos of the mindmapping, development, and prototyping process, with image captions and descriptions under each image. If desired, these images can be incorporated into the body of the design process statement.
6. A design process statement – a 1500 word statement that describes the group's design process, the feedback from playtesting sessions, and design iterations. When writing about your playtesting sessions, be sure to document specific feedback, including quotes from your playtesters, and to write both the WHAT and the WHY for each design iteration.
 - a. The Design process statement should be broken down into the following sections:
 - i. Brainstorming/Mindmapping
 - ii. Rough Prototype
 1. In-class playtest
 2. External playtest 1
 3. External playtest 2
 - iii. Detailed Prototype
 1. In-class playtest

2. External playtest 1
3. External playtest 2
- iv. Final concept
7. For some assignments, an additional 500-1000 word section

Elements 2 through 7 will be compiled as a single PDF, and submitted to the LMS site. For group assignments, each group need only submit one collective PDF.

For all Design Challenges, students should undergo **at least** two major iterations of their game design during and post-playtesting, as well as two external playtesting sessions per iteration.

Submission of projects 3, 4, and 5 will also be accompanied by a formal in-class group presentation.

Design Challenge 1: Fix a Game

Group Size: 2 Members

Due Date: September 15

Student groups will be assigned one common, “broken” game—a game of chance where the mechanics themselves are not meaningful—and prototype a “more meaningful” type of gameplay for that game. Student groups should:

1. Develop a ruleset for the broken game
2. Consider what may be meaningful for the broken game (for example, roulette is both broken and very meaningful)
3. Develop an iteration of the game that creates more meaningful play (we’ll describe this more in class)
4. Not stray so far from the original themes and meaning of the game that the iteration becomes unrecognizable

Design Challenge 2: Affordances

Group Size: 3 Members

Due Date Friday, October 6

We recognize the importance of affordances when the design of an item is missing them, or when affordances and constraints operate unexpectedly. This is as true for physical environments as it is for games. Student groups will be assigned an object, and will be responsible for building a game that centers that object. As you seek affordances to play with, remember that affordances are relationship-based, not property based. That is, what may be a useful affordance for some users may be invisible to or even a hindrance for other users. Also remember that there are several overlapping dimensions of affordances/constraints, and not all are physical. As a reminder, the affordances/constraints we will discuss in class include:

- Physical: affordances and constraints that primarily work in materials ways. A key may only fit in one kind of slot, a Tetris piece can be rotated to fit into several different kinds of places, or to build new slots.
- Semantic: affordances and constraints that operate due to social rules and commonly held interface beliefs. A “red light” at a crosswalk does not physically prevent a car from moving, but it is remarkably effective at creating a “Stop” action.
- Cultural: affordances and constraints that have no predetermined rules, but work because of broader cultural and social conventions. Typically, students know not to sit at the “teacher station” when they enter a classroom, even though that rule has never explicitly been communicated to them. It is considered rude or weird to enter an elevator and stare at another person or at the wall, rather than turning around and facing towards the doors.
- Logical: affordances and constraints that operate by implying a logical relationship. The most common example are dials for oven burners; we expect that the dials will be arranged such that we don’t need a chart to tell us which dial turns on which burner. When they are not arranged in such a way, users often “slip” and light the wrong burner.

Design Challenge 3: Grow-a-Game

Group Size: 3 Members

Due Date: October 27

Group Size: 3 Members

we will explore both how games can contribute to better understandings of social phenomena, as well as how games always already have social, cultural, and political values embedded within them. As designers, it is our job to be acutely aware of the societal implications of our game narratives, mechanics, and aesthetics (see, for example, the recent Ubisoft pro-facist/anti-BLM mobile game debacle, which we will explore more in class).

In the Grow-A-Game Challenge, student groups will produce a game that embodies a game designer’s social responsibilities as an artist, designer, and person within society. The game redesign and social responsibility will be highly constrained by the instructor through the Grow-A-Game system. Students must then:

- Research the social issue assigned
- Research other games that have done this work
- Design a game that incorporates the social issue—importantly, this design must be holographic; the social issue must permeate all aspects of the redesigned game
- Must incorporate polished design components
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Note that the game should showcase a well-researched perspective on the social issue, and should serve to ***make an argument***, rather than attempting to portray a neutral of “both-sides”-ism approach to an issue. The game should also not simply be a “simulation” of the social issue but rather an exploration of it that highlights aspects the designers feel important, and uses the medium of games to leverage emotional and interactive experiences that might not be possible through static text.

Some useful examples of these kinds of socially-engaged games are:

- *Consentacle* (consensual sexual exploration, kink, queerness)
- *Spirit Island* (colonialism, neoliberalism, scientism)
- *Sign* (linguistics, deaf culture, the relationship between bodies, language, and play)
- *The Train Game* (fascism, information criticality and literacy, mundanity in genocide)

While replayability should always be a consideration, it will be up to the designers to balance issues like replayability and game balance/fun with argumentation and emotional impact. Of the four above games, for example, *Spirit Island* weighs heavily toward replayability, whereas *The Train Game* is designed to be played only once.

First Concept must demonstrate sufficient peer-reviewed research into the social issue, a collection of games that have explored the issue before, a tracing of the strengths and weaknesses of those explorations, and evidence of multiple rough concepts, pivots, and plusses that take into account the group's research.

Rough Prototype must demonstrate basic gameplay elements, rules, and goals of the game, and must be in a playtestable state. While no advanced material prototyping is required at this stage, players must have a general plan of what/how many assets need to be constructed, and the materials and time required to do so (this, of course, may change after playtesting).

Detailed Prototype must demonstrate design iterations post playtesting, proofs-of-concept for the game pieces, early concept art, and advanced aesthetic intention for the game.

Final concept and report must demonstrate further playtesting refinement and pivots, polished final assets, and evidence of the holographic deployment of the social issue.

In addition to the normal components of the submitted PDF, students should provide a section that details their research about the social issue, how they inflected that research throughout their game design, and how they were able to test the effectiveness of that issue with diverse play groups.

Design Challenge 4: Papering the Digital

Group Size: 3 Members

Due: Nov 17

Students will choose an existing digital game (pending approval) that they must convert into a physical version. Given the complexity of digital games, students will need to find creative and unique ways to abstract game mechanics while keeping the core experience. Throughout this process students are encouraged to take a holistic view of the core aspects of their chosen game including mechanics, audience, and pacing. The game should be learnable for a new player in under ten minutes with no coaching.

First Concept must demonstrate a deconstruction of the essential experiences of the chosen digital game, multiple strategies for abstracting and converting that game to paper format, evidence of multiple pivots and plusses in early concepting, clear articulation of intended essential experiences and gameplay.

Rough Prototype must demonstrate basic gameplay; meaningful translation of digital game form; and external playtesting readiness

Detailed Prototype must demonstrate iterations based upon playtesting feedback; clearly written and understandable rules; a movement towards aesthetic polish

Final concept and report must demonstrate a fully fleshed out and polished game deliverable; justification for digital-to-paper translations; evidence of successful non-coached game play by intended user group.

In addition to the normal components of the submitted PDF, the Design Report should include a 1000-word description of the game's intended audience, how that audience is an appropriate crux

between the assigned game and the client brief, and how the game was crafted to suit that audience's needs.

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Design Challenge 5: Hybrid Game Design

Group Size: 3 Members

Due: December 8

The second challenge, "Hybrid Game Design," will focus on mixed reality or hybridized digital and physical space. Game must be played by at least two players, one operating primarily in a digital modality, and one operating primarily in physical modality. Players are allowed to use the "opposite" modality to communicate with one another (e.g. physical players could use a smartphone or laptop, digital players could yell out the window), but otherwise must engage in play primarily in their modality.

When developing the game, think about games that are already successful in doing this. One great example is the VR game "Keep Talking and Nobody Explodes," but you can also draw inspiration from pre-digital "hybrid" games like "Marco-Polo" or "Pictionary," or hybrid game-adjacent events, like a physical/virtual marathon.

First Concept must outline basic hybrid gameplay, the number of players, and those players' roles, means, rules, and goals. Concept should also demonstrate thought put into the platform/delivery mechanisms of the game, and how the affordances of the digital platform and presumed physical spaces will interact. Be sure to think clearly about things like physical accessibility and personal safety.

Rough Prototype must demonstrate basic gameplay elements, rules, and goals of the game in a playtestable state. While no advanced material prototyping is required at this stage, students must have a general plan of what/how many assets need to be constructed, and the materials and time required to do so (this, of course, may change after playtesting). Students should also have a plan for testing physical elements of the game digitally, or digital elements of the game physically, depending on the needs of the game and our situation regarding COVID quarantining.

Detailed Prototype must demonstrate design iterations post playtesting, proofs-of-concept for the game assets, early concept art, and advanced aesthetic intention for the game. It must also demonstrate changes and iterations based upon Discord feedback, faculty/student feedback, and playtester feedback.

Final concept and report must demonstrate further playtesting refinement and pivots, polished final assets, and mockups of finalized digital interface/playscreen and its interaction with physical play.

Schedule:

| Week | Theme | Monday Class | Thursday Class |
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| Week 1, August 29 and September 1 | Introduction, the Human-Centered Design Process, being comfortable with failure | In Class: Intro to GSAS In Class: Tic-Tac-Toe | In Class: Battleship, Pivoting and Plussing |

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| Week 2, September 6 and 8 | LABOR DAY ~Following a Monday Schedule on Tuesday Brainstorming, Ideas, Inspiration, Aesthetics, Combating “Early-Stage Lock-in” | <i>Art of Game Design (AoGD)</i> , pages 1-23 In Class: Mental Mapping, Brainstorming | Situational Game Design (SGD) Introduction Fix-a-Game Rough Prototype Due |
| Week 3, September 12 and 15 | Games as Experience, Playtesting, what is a “Design Problem?” | SGD Chapter 2 Essential Experiences, Core Gameplay Loops | Fix-a-Game Detailed Prototype Due AoGD, pages 433-449 Due: Fix a Game Assignment |
| Week 4, September 19 and 22 | Affordances and Constraints | The Design of Everyday Things, ‘Affordances’ (on LMS) In Class: Paper Prototyping | The Design of Everyday Things ‘Constraints’ (on LMS) Affordances Rough Prototype Due |
| Week 5, September 26 and 29 | Players and Mechanics, how do players experience games? | AoGD pages 69-88 AoGD pages 115-131 In Class: Game Rules Breakdown | AoGD pages 201-238 Affordances Detailed Prototype Due |
| Week 6, October 3 and 6 | Stories, Responsibilities of the Designer to our players, to society | AoGD pages 295-334 In Class: Design Group Roles Role-Play | AoGD pages 499-524 Affordances Final Concept and Report Due |
| Week 7, October 10 and 13 | Pitches, Deep Diving into Games, reading culture and society across all levels of a game | Columbus Day – NO CLASSES | SGD Chapter 8 Grow-a-Game Rough Prototype Due |
| Week 8, October 17 and 20 | What is a Game? What are a Game’s Goals? | SGD Chapter 3 | SGD Chapter 5 Grow-a-Game Detailed Prototype Due |

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| Week 9, October 24 and 27 | Anticipation | SGD Chapter 4 | Grow-a-Game Final Report, Presentation, and Concept Due |
| Week 10, October 31 and November 3 | Game Worlds, Game Spaces | AoGD pages 25-32 AoGD pages 335-381 | Jim @ Conference (Jerry will lead class) Papering the Digital Rough Prototype Due |
| Week 11, November 7 and 10 | Multiplayers, Communities, Institutions of Play | AoGD pages 471-483 | Papering the Digital Detailed Prototype Due |
| Week 12, November 14 and 17 | Role Playing | AoGD pages 393-412 | Papering the Digital Final Report, Presentation, and Concept Due |
| Week 13, November 21 and 24 | Thanksgiving Break | THANKSGIVING BREAK | Recommended: Prepare rough prototype of Hybrid Game Design before Break |
| Week 14, November 28 and December 1 | Open games, Professional Games | | Hybrid Game Design Detailed Prototype Due |
| Week 15, December 5 and 8 | Presentation Prototyping | | Hybrid Game Design Report, Presentation, and Final Concept Due |
| Finals Week | | | |

Attendance:

Students are expected always to be present during class and recitations. Attendance will be taken at the beginning of each class. Excellence in submitted work will not make up for delinquency in attendance. **More than two unexcused absences will result in a lowering of your final course grade by one mark for each unexcused absence after 2. More than six absences will result in the failure of the course. Three late arrivals will equal one missed class.** If you must miss a class, assignments are due before the class period begins. Excusable absences include illness, family emergencies, and scheduled Rensselaer athletic events. All excused absences must be delivered to the professor via the Office of Student Life.

Late Policy: All assignments are due to LMS before class begins. Assignments will be deducted one full letter grade for each day late. Presentations cannot be made up unless there is a valid, documented excused absence.

Academic Integrity:

Student-teacher relationships should be built on trust. Students should be able to trust that

teachers have made responsible decisions about the structure and content of the courses they teach, and teachers must trust that the assignments students turn in are their own. Acts that violate this trust undermine the educational enterprise and contradict the very reason for your being at Rensselaer. *The Rensselaer Handbook of Student Rights and Responsibilities* defines various forms of academic dishonesty and procedures for responding to them. The policies laid out in the *Handbook* are intended to maintain a community of trust and will be strictly enforced. Please review these policies.

For this course, the following penalties will apply:

- Significant acts of plagiarism (e.g., text copied verbatim from an unidentified source): Failure of the course and a written judgment in the student's official record
- Minor acts of plagiarism (e.g., referencing the findings of others without appropriate citations): Failure of the assignment, plus reduction of final course grade by one letter grade
- Other acts of academic dishonesty: Penalties range from a warning to reduction of final grade by one letter grade to failure of the course, depending on the severity of the violation as determined by the instructor. As is evident above, penalties for plagiarism are significant. All direct use of another person's words must be placed inside quotation marks. You must also indicate where you paraphrase another's work and where you borrow another's specific ideas or interpretations. If you have questions regarding proper citation practices, see the instructor for clarification before the assignment is submitted. While collaboration is encouraged throughout the course, others cannot do work for you. All assignment activities must be carried out by the individual or team members submitting the assignment for a grade. Other people may show you *how* to do something (say, when using computer software), but you must follow up by doing the work yourself. *The Rensselaer Handbook* provides specific procedures by which a student may appeal a grade. You should speak to the professor before initiating an appeal. If this does not lead to satisfactory resolution, you have the option of appealing your grade by writing to the head of the GSAS Department no later than 10 days after your grade has been posted.