Overview

*Introduction to Game Design* is a one-semester course that explores the fundamentals of game design. The focus of the class is the actual creation of several non-digital (off the computer) games. Just as art students might take “fundamentals” classes in figure drawing or color theory as part of their education to become visual artists, this class remains rooted squarely in the basics. It focuses on the elementals common to all games that are fundamental for a game designer working in any format, from sports to board games to computer and videogames. Although the focus of the course is on the creation of non-digital games, digital games will also be discussed and one of the assignments is the creation of a digital game concept pitch.

Goals of the course

- Explore the basic methodologies and conceptual skills of game design, such as systems thinking, an iterative design process, play testing, design collaboration, critical design analysis, etc.
- Gain the experience of actually creating several playable games using an iterative design process.
- Foster an understanding of what games are, on and off the computer, and how they function to create meaningful experiences for players.
- Explore fundamental concepts relating to games and design, such as rules and play, emergent complexity, long and short-term goals, etc. This includes understanding games as formal systems, experienced human systems, and cultural systems.
- Become familiar with the foundational texts in the field of game design, and understand game design as a field that encompasses all kinds of games.
- Link the principles of the course to computer and video games on a variety of platforms.

Required Readings

Readings for the course will be taken from the following two books.  
*Rules of Play*, Katie Salen & Eric Zimmerman  
*The Game Design Reader*, Katie Salen & Eric Zimmerman, eds.
Week-by-week Schedule

UNIT ONE: Games as Formal Systems

Week 1
9/8
TOPICS: introduction to class; what is game design; what makes games meaningful; Rules, play, and culture; the iterative process
IN-CLASS EXERCISES: Tic-tac-toe: modify its rules to make it meaningful.

ASSIGNED: Game Modification - Each group will get a simple but broken game as a starting point. Groups will identify what is broken about their game, and make modifications to create a more meaningful experience for players. (1 week)
READING FOR NEXT WEEK: Rules of Play, Chapter 6: Interactivity

Week 2
9/15
DUE: Game Modification
TOPICS: games as formal systems; games and rules; the elements of games
IN-CLASS EXERCISE: visualizing the rules of a videogame; formal analysis

ASSIGNED: Abstract Game - Groups will be given both material and structural constraints will have to create a playable, balanced game. (2 weeks)
READING FOR NEXT WEEK:
Rules of Play: Chapter 15: Games as Systems of Uncertainty
Rules of Play: Chapter 18: Games as Cybernetic Systems

Week 3
9/22
DUE: Prototype and rules for abstract game
TOPICS: probability; chance; randomness; perceived vs. real math
IN-CLASS EXERCISES: probability & cybernetics exercises

Week 4
9/29
DUE: Abstract game
TOPICS: games as social play
IN-CLASS EXERCISES: social game mechanics

ASSIGNED: Social Game - Groups will be given social and emotional criteria and will create a game that produces these experiences. The emphasis is on how the system can be designed to produce the desired experience through emergent means. (2.5 weeks)
READING FOR NEXT WEEK: Rules of Play: Chapter 19: Games as Game Theory Systems
**Week 5**

10/6  **DUE: Prototype and rules for social game**

- **TOPICS:** game theory; psychology of player interaction
- **IN-CLASS EXERCISES:** more social game mechanics

**UNIT TWO: Games as Experiential Systems**

**Week 6**

10/15  **NOTE: THIS CLASS WILL TAKE PLACE DURING THE THURSDAY LAB SESSION**

10/15  **DUE: Social Game**

- **TOPICS:** games and narrative; game form and game content
- **IN-CLASS EXERCISE:** narrative board game design strategies

**ASSIGNED: Narrative Game** – Starting with a provided narrative, groups will create a solo/cooperative game that takes the narrative as its content. The goal is to have the game procedurally represent the narrative through actual gameplay. (1.5 weeks)

**READING FOR NEXT WEEK:** Rules of Play: Ch. 27: Games as the Play of Simulation

**Week 7**

10/20  **TOPICS:** games and simulation; procedural representation; games and drama

- **IN-CLASS EXERCISES:** narrative game design exercises

**READINGS FOR NEXT WEEK:**

- Rules of Play: Chapter 20: Games as Systems of Conflict
- Chapter 21: Breaking the Rules
- Chapter 24: Games as the Play of Pleasure

**Week 8**

10/27  **DUE: Prototype & Rules for Narrative Game**

- **TOPICS:** short-term and long-term goals; games and fairness; cheating, exploits, and degenerate play; positive and negative rewards; flow and gameplay

- **IN-CLASS EXERCISES:** balancing through goals and rewards

**Week 9**

11/3  **DUE: NARRATIVE GAME (Critique session)**

11/5  **LAB SESSION:**

- **TOPICS:** communicating ideas, the role of the game designer, documenting design

**ASSIGNED:** Digital Game Pitch (1 week)
UNIT THREE: Games as Cultural Systems

Week 10
11/10 DUE: Digital Game Pitch
TOPICS: games and culture; games and art; game design as cultural intervention

IN-CLASS EXERCISES: balancing a complex game economy; spreadsheet demo

ASSIGNED: Intervention Game: Groups will create a game that is in some way a cultural intervention in the lives of its players, on the level of space and ritual, ideological content, or player lifestyle. (1 week)

Week 11
11/17 DUE: Intervention Game
TOPICS: game economies; balancing games; using spreadsheets in game design

ASSIGNED: Final Concept – Begin thinking about final project – who you want to work with, what kind of game you want to make, and what design questions you want to explore. (1 week)

ASSIGNED: Digital Game Concept Document – Working individually or in pairs, students will take the game concept that was pitched to class and turn it into a short concept document, based on a template given to the students. The emphasis is not just on creating a good design concept but also in communicating that design in document form. (2 weeks)

READINGS FOR NEXT WEEK:

Week 12
11/24 DUE: Final Project Concepts – present and discuss in class, form into groups

TOPICS: digital game design; online multiplayer games; player types and play styles
IN-CLASS EXERCISES: balancing a multiplayer game system; spreadsheets part 2

ASSIGNED: Final Project: Groups of students will work on one of the projects that came out of the final project concepts. Students will be expected to apply concepts and lessons from the rest of the semester into their design thinking as they plan and execute their final projects.

READINGS FOR NEXT WEEK:
GD Reader: Sniderman, Unwritten Rules, p. 476-503
Parlett, Hoyle on Troubled Waters
Week 13
12/1  TOPICS: cultural contexts of play; implicit rules; cultural politics in games

READINGS FOR NEXT WEEK:
   A Primer for Playtesting, Pozzi & Zimmerman
   The Who, What, Where, When and Why of Playtesting, Woodruff

Week 14
12/8  DUE: Prototype and rules for final game
       TOPICS: techniques and approaches to playtesting; preparation for playtest lab

Week 15
12/15 DUE: Final Project — We’ll present the game to 2 guest critics from the Game Center faculty. Bagels and OJ/coffee will be served!
Assignments

Below is a description of class assignments. Written components of class assignments, such as game rules, design process statements, etc, should be printed out and brought to class on the day that the assignment is due.

Readings & Reading Presentations

Most weeks during the semester, readings will be assigned. Students are responsible for completing these readings, and for being prepared to discuss them each class. Failure to participate in discussions and demonstrate that the readings have been completed will affect the participation component of your grade.

Design Assignments

There are several game design assignments over the course of the semester. These assignments involve the collaborative creation of a playable game and will constitute the bulk of the work during the semester. These assignments range from one to four weeks in length. Generally, the week after a non-digital game design is assigned, a playable prototype version of the game is due in class, along with the current ruleset.

These design assignments are completed in groups. It is essential that you attend your group meetings and fully participate in the design and creation of your games. For each group design assignment, every group must turn in the following:

- **Abstract**: The name of the game, its creators, semester and class, and a 200-300 word summary overview of the game.
- **Rules**: A complete description of the game rules.
- **Materials list**: List of all physical game materials.
- **Images**: 1-5 images of the game.
- **Design Process Statement**: A one page or less description of your design process. What were the design challenges your encountered and how did you solve them?
- **Peer Grades**: You will grade each of your peers on their participation. These peer grades will be emailed directly to the instructor.

Below are the projects that will be completed in class. In addition to the parameters listed below, additional design parameters may be added when they are assigned.

- **Abstract game design**: Groups will create an abstract game in a traditional non-digital game format, such as a card game or board game.
- **Social game design:** Groups will create a game that emphasizes social interaction and player experience.

- **Story game design:** Groups will be given a short narrative that will be the basis of a game project that expresses some aspect of the story.

- **Digital game pitch:** Students will work individually to make a 4-minute presentation to class about an original digital game concept.

- **Digital game concept document:** Working alone or in pairs, students will create a sort game concept document based on their digital game pitches.

- **Intervention game design:** Groups will create a game that is in some way a cultural intervention in the lives of its players, on the level of space and ritual, ideological content, or player lifestyle.

- **Final project:** Students will work alone or in groups to create any kind of game, building on the ideas and concepts from the rest of the semester.
Grading

Evaluation of work
Each project will be evaluated with the following criteria:

• **Functionality.** Has the student made a playable, enjoyable game that can be completed and does not have any obvious structural problems?

• **Balance.** Beyond basic playability, are the systems of the game well-balanced and does the game provide multiple, meaningful choices for players?

• **Creativity.** Does the project evince innovation and uniqueness? Does it show a creative imagination that does not solve the given design problem in an ordinary way?

• **Appropriate for the assignment.** Each project is a response to constraints given by the instructor. Has the project properly addressed these constraints?

• **Presentation.** Each game is presented in material form, along with its rules and a written process statement. Are these materials well-written, well-organized, and easy to use?

Students will be given grades based on a 100-point scale. Each assignment will be graded on a point scale, and these points will be added up to determine the final grade, according to the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-100</td>
<td>A</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
</tr>
<tr>
<td>88-89</td>
<td>B+</td>
</tr>
<tr>
<td>83-87</td>
<td>B</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
</tr>
</tbody>
</table>

The following are the components of the grade:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance &amp; participation</td>
<td>15%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Modification Game</td>
<td>10%</td>
</tr>
<tr>
<td>Abstract Game</td>
<td>10%</td>
</tr>
<tr>
<td>Social Game</td>
<td>10%</td>
</tr>
<tr>
<td>Story Game</td>
<td>15%</td>
</tr>
<tr>
<td>Digital Game Pitch</td>
<td>5%</td>
</tr>
<tr>
<td>Final project</td>
<td>25%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Late penalties
All assignments must be turned in on time. If an assignment is not turned in by the class for which it is due, its grade will drop 5% + 5% for each day it is overdue.

Attendance & Participation
Attendance and arriving on time to all class sessions is required and expected. This includes all lectures and labs. If you will be missing a class due to illness, or unavoidable personal circumstances, you must notify your professor in advance via email for the absence to be excused.

Unexcused absences and being late to class will lower your final grade. Three unexcused absences lower your final grade by a letter. Each subsequent unexcused absence will lower another letter grade. Being late twice will count as one unexcused absence. Arriving more than 15 minutes late to class will also count as an unexcused absence.

In addition to the above, attendance and participation portion of your grade is based on the following:
• Participation in group discussions and critiques
• Peer grades from group projects.

Peer grades
Peer grades will be emailed to the instructor for each group assignment. You will give a grade to each member of your group. You can add a short explanation if you like, and you must add some explanation when giving a grade of C or below.
A = Fully participated and contributed ideas - hard worker and great teammate
B = Generally was present during the process - no complaints
C = Attended some meetings, but could have contributed more
D = Was absent from most or all meetings, or counter-productive in some way
F = Completely absent from the process

Group evaluations
In addition to the private peer grades, students will also write an evaluation of each team member for each group project. These evaluations will be sent to all group members and to the instructor. Group evaluations consist of the following:
• Two positive observations. At least two observations that point out the particular skills, behaviors, particular decisions, or other ways in which the team member made a positive contribution to the group. Each observation should be written in a few sentences.
• Two areas for improvement. At least two observations that point out how the team member can change their working style, collaborative approach, or other aspects of their behavior to improve the project and the team dynamic.
Statement of Academic Integrity
Plagiarism is not allowed in the class. Presenting someone else’s work as your own and copying sources without proper attribution can be a very serious offense. Confirmed plagiarized work can result in failing the assignment; depending on the seriousness and deliberateness, it could also mean failing the source. For more information on what is and is not plagiarism, please read:


Do not take this lightly. If you do not understand what plagiarism means, please do not hesitate to ask. Please read NYU’s statement of Academic Integrity:

http://guides.nyu.edu/c.php?g=276562&p=1844738

Accessibility
Academic accommodations are available for students with documented disabilities. Please contact the Moses Center for Students with Disabilities on 212-998-4980 for more information.

This Syllabus
Each class is different, and through this syllabus has been prepared with the most general student audience in mind, the instructor reserves the right to change any of the assignments or readings in order to better fit the needs of any particular class. However, at least one week’s notice will be given for any of these changes.
Tips for Working Successfully in a Group

From the Building Virtual Worlds class at Carnegie Melon’s ETC Program

Meet people properly. It all starts with the introduction. Then, exchange contact information, and make sure you know how to pronounce everyone’s names. Exchange phone #s, and find out what hours are acceptable to call during.

Find things you have in common. You can almost always find something in common with another person, and starting from that baseline, it’s much easier to then address issues where you have differences. This is why cities like professional sports teams, which are socially galvanizing forces that cut across boundaries of race and wealth. If nothing else, you probably have in common things like the weather.

Make meeting conditions good. Have a large surface to write on, make sure the room is quiet and warm enough, and that there aren’t lots of distractions. Make sure no one is hungry, cold, or tired. Meet over a meal if you can; food softens a meeting. That’s why they “do lunch” in Hollywood.

Let everyone talk. Even if you think what they’re saying is stupid. Cutting someone off is rude, and not worth whatever small time gain you might make. Don’t finish someone’s sentences for him or her; they can do it for themselves. And remember: talking louder or faster doesn’t make your idea any better. Check your egos at the door. When you discuss ideas, immediately label them and write them down. The labels should be descriptive of the idea, not the originator: “the troll bridge story,” not “Jane’s story.”

Praise each other. Find something nice to say, even if it’s a stretch. Even the worst of ideas has a silver lining inside it, if you just look hard enough. Focus on the good, praise it, and then raise any objections or concerns you have about the rest of it.

Put it in writing. Always write down who is responsible for what, by when. Be concrete. Arrange meetings by email, and establish accountability. Never assume that someone’s roommate will deliver a phone message. Also, remember that “politics is when you have more than 2 people” – with that in mind, always CC (carbon copy) any piece of email within the group, or to me, to all members of the group. This rule should never be violated; don’t try to guess what your group mates might or might not want to hear about.

Be open and honest. Talk with your group members if there’s a problem, and talk with me if you think you need help. The whole point of this course is that it’s tough to work across cultures. If we all go into it knowing that’s an issue, we should be comfortable discussing problems when they arise – after all, that’s what this course is really about. Be forgiving when people make mistakes, but don’t be afraid to raise the issues when they come up.

Avoid conflict at all costs. When stress occurs and tempers flare, take a short break. Clear your heads, apologize, and take another stab at it. Apologize for upsetting your peers, even if you think someone else was primarily at fault; the goal is to work together, not start a legal battle over whose transgressions were worse. It takes two to have an argument, so be the peacemaker.

Phrase alternatives as questions. Instead of “I think we should do A, not B,” try “What if we did A, instead of B?” That allows people to offer comments, rather than defend one choice.
How to Work Better

1. Do one thing at a time
2. Know the problem
3. Learn to listen
4. Learn to ask questions
5. Distinguish sense from nonsense
6. Accept change as inevitable
7. Admit mistakes
8. Say it simple
9. Be calm
10. Smile

Peter Fischli and Davis Weiss.