DM-UY 2153-A / CS-UY 3233-A INTRO TO GAME DEVELOPMENT

TIME / LOCATION: TuTh 12:30 – 2:20 2 Metrotech Center, Room 817 3 units, Fall 2014

INSTRUCTORS: Simon Niedenthal <simon.niedenthal@mah.se>, office hours W. 1-3pm
Robert Yang <ry14@nyu.edu>, office hours by appointment

DESCRIPTION: This class introduces the principles of analog and digital game design. Students learn about a range of game types and understand their conceptual building blocks. Students complete a structured sequence of assignments toward the completion of game project(s).

LEARNING GOALS / OUTCOMES:

- Understand basic game design concepts, processes and terminology (analog games)
- Acquire a critical understanding of digital media (specifically, digital games)
- Develop competency in basic OO programming (in a game development context)
- Develop competency in industry-standard commercial software (Unity3D)

READINGS:

- Game Design Workshop, by Tracy Fullerton et al. (2008)
- various excerpts / PDFs that will be e-mailed to you as you need them
- various games that you will be expected to play for at least 30+ minutes

MATERIALS / TOOLS: (for 2nd half of semester)

- (preferably) a laptop computer of some sort, though the room has some workstations
- Unity, free version – unity3d.com

ASSIGNMENTS:

- Weekly DESIGN EXERCISES... analog exercises are groups, digital exercises are individual
- Weekly JOURNALS about readings / play. Write 150+ word (about half a page) response about the assigned game(s) in relation to the readings and lecture.
- MIDTERM group project: nondigital 2+ player game with formal and material constraints
- FINAL group project: a digital 2 player variant of “Space War” with personalized theme, art style, and mechanics. You will also be required to write a project post-mortem.

COURSE STRUCTURE:

- There will be attendance taken on both Tuesdays and Thursdays.
- Tuesday is usually LECTURE. Sometimes we will do activities, discuss readings, and/or play games.
- Thursday is primarily LAB time for you to play games and work on assignments / design / collaborate.
- In the 2nd half of this class, we will be using GitHub to coordinate code and collaborate. This class site is located at: **github.com/radiatoryang/introtogamedev_fall2014**

SCHEDULE (* tentative, subject to change)

9/2, Week 1: Introductions, what is a game?, definitions, Mechanics/Dynamics/Aesthetics (MDA) framework, player experience goals, Game jams, brainstorming,.

READING: Fullerton ch 1, 2, 6, as well as the MDA pdf
PLAY: Werewolf, Twister; analyze either game in terms of MDA, what are its mechanics, etc.
LAB: Twister Mod, modify a copy of Twister according to a given adjective.

9/9, Week 2: 20 Questions exercise, formal infrastructure of games, rules, outcomes, player interaction patterns, play duration. Physical prototyping, bodystorming, improv.

READING: Fullerton chapters 3 & 7.
PLAY: 20 Questions, Fluxx; for Fluxx, give an example of an objective, a rule, a resource, a conflict, a boundary.
LAB: Pickpocketing, develop a physical game mechanic / prototype a physical object

9/16, Week 3: drama and aesthetics, play, challenge, heuristics, premise, character, narrative, emotional experience. Art bible, site-specific urban play.

READING: Fullerton chapter 4
PLAY: Turtle Wushu, Ninja, RPS Tag; write a report of how one game went, tell us about the drama / emotions
LAB: Fire Hazard Street Game cards, create a place-specific/pervasive game near MAGNET

9/23, Week 4: games as systems, objects, properties, behaviours and relationships, control, emergence, feedback, balance and tuning. Playtesting techniques.

READING: Fullerton chapters 5 & 9.
PLAY: "Go", learn at playgo.to/iwtg/en/ then play cosumi.net on a 9 board vs Level 0 AI; who won and why?
LAB: formally playtest a new or modified game (could be something from the first 3 labs)

9/30, Week 5: player cultures, player personas and play styles

READING: "Rooie Rules", Bartle on "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs", Canossa
PLAY: Pick any non-digital game from the Open Library and play it; analyze for player personas / play styles.
LAB: work on your MIDTERM project, outline at least 2 player personas for it

10/7, Week 6: the theory of the magic circle, cheaters and spoilsports

READING: Huizinga excerpt, Harry Frankfurt "On Bullshit"
PLAY: cheat (seriously) + spoil-sport in games outside class; write about your experience, connect to "bullshit"
LAB: work on your MIDTERM project, 2 labs (10/9, 10/16)

(no lecture on 10/14, Fall Recess)

10/21, Week 8: MIDTERM presentations! analog vs. digital design

READ: Pippin Barr, "Hello World"
PLAY: Spaceteam by Henry Smith (free, iOS or Android phone)... see LAB
LAB: Try a digital 2-4+ player game in Open Library, compare to SpaceTeam... Goals? Strategy? Mechanics?

10/28, Week 9: intro to Unity, interface, working with 3D space

READ: Fullerton, ch. 8
PLAY: Proteus by Ed Key / David Kanaga; did you have enjoy this? what is this game about?
LAB: poetic landscape, using the Terrain Tool and the Text Mesh, using GitHub

11/4, Week 10: intro to C# code, basic code control structures, using code in Unity, Spacewar, start FINAL

READ: re-read Fullerton, ch. 7
PLAY: Spacewar, Everyday Shooter by Jonathan Mak; compare and contrast design to Spacewar
LAB: prepare a FINAL pitch, make physical prototype; make a related text adventure prototype

11/11, Week 11: intro to physics, vector math, spawning projectiles, intro to level design

READ: "Deconstructing Favela" parts 1 and 2
PLAY: TBA
LAB: a FINAL project prototype with input, projectiles, obstacles, and end states

11/18, Week 12: intro to 3D sculpting and exporting into Unity, intro to game feel, "juice it or lose it"

PLAY: "Papers, Please" by Lucas Pope. (Free demo is ok); what is this game about?
LAB: iterate on the FINAL project; add juiciness, make a moodboard of the game's look

11/25, Week 13: in-class playtest, meaning and aesthetics in games?

READ: excerpt from "Rise of the Videogame Zinesters" by Anna Anthropy
PLAY: "Dys4ia" by Anna Anthropy
LAB: (NO LAB, Thanksgiving break)... but finish your FINAL project!

12/2, Week 14: FINAL presentations, Simon and Robert's research

LAB: finish your FINAL project

12/9, undergraduate reading day, no class; FINAL project + write-up is due **FINAL EXAM: no final exam**

IDM PROGRAM LEARNING OBJECTIVES

- develop conceptual thinking skills to generate ideas and content in order to solve problems or create opportunities.
- develop technical skills to realize their ideas.
- develop critical thinking skills that will allow them to analyze and position their work within cultural, historic, aesthetic, economic, and technological contexts.
- gain knowledge of professional practices and organizations by developing their verbal, visual, and written communication for documentation and presentation, exhibition and promotion, networking, and career preparation.
- develop collaboration skills to actively and effectively work in a team or group.

ASSESSMENT:

Students will be graded primarily on demonstrated process and technique. 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: 98-100 A+, 92-97 A, 90-91 A-, 88-89 B+, 82-87 B, etc.

The following are the components of the grade:

Attendance & participation: 20%; Homework / Journal: 20%; Midterm: 20%
Final: Alpha milestone 15%; Final: Gold milestone 20%; IDM Work Documentation 5%

ATTENDANCE AND PARTICIPATION:

The attendance and participation portion of your grade is based on the following:

• Your attendance in class and tardiness. After 2 unexcused absences, every further absence will decrease your class grade by a level (e.g. A >> B)
• Participation in group discussions and critiques
• Peer grades and participation in writing group evaluations

STUDENT DOCUMENTATION

Students must document their FINAL project on IDM servers located at http://sites.bxmc.poly.edu
For webspace / instructions / access, please contact:

Elton Kwok, IDM Technology Director, MAGNET 883, eltonkwok@nyu.edu, for space on sites.bxmc.poly.edu.

PEER REVIEWS

a) Two positive observations. Particular skills, behaviors, decisions, or other ways in which a member made a positive contribution. Each observation should be written in a few sentences.
b) 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 presenting someone else's work as though it were your own. More specifically, plagiarism is to present as your own: A sequence of words quoted without quotation marks from another writer or a paraphrased passage from another writer's work or facts, ideas or images composed by someone else.
http://engineering.nyu.edu/academics/code-of-conduct/academic-dishonesty

ACCESSIBILITY

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