DM-UY 2153-A INTRO TO GAME DEVELOPMENT
CS-UY 3233-A GAME DEVELOPMENT STUDIO 1

MW 2:30-4:20 2 Metrotech Center, Room 817 3 units, Fall 2016

INSTRUCTOR:
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)

PRIMARY READINGS:
- Game Design Workshop, by Tracy Fullerton et al. (2008)
- various games that you will be expected to play for at least 30+ minutes

MATERIALS / TOOLS: (for 2nd half of semester)
- a laptop computer of some sort... the lab workstations are generally unreliable for this
- Unity, free version – unity3d.com – DON'T PIRATE IT, IT'LL BE AN OLD BUGGY VERSION

ASSIGNMENTS:
- Weekly DESIGN EXERCISES... analog exercises are groups, digital exercises are individual
- Weekly JOURNALS about readings / play.
  - Write 100+ words in response to the weekly prompt.
  - You MUST quote any assigned readings at least twice, or you will lose credit.
- Turn-in homework at: **github.com/radiatoryang/fall2016_introtogamedev**

- MIDTERM group project: nondigital 2+ player game following a secret theme
- FINAL group project: digital 2+ player game following a secret theme

COURSE STRUCTURE:
- Showing up is the most important part of class. You MUST attend both days each week.
- After two (2) unexcused absences, your grade will begin going down one grade level for every additional unexcused absence. (e.g. A > B)... Four (4) is grounds for failure.
- Monday is usually more structured LECTURE. Wednesday is more self-directed LAB time.

THERE IS NO FINAL EXAM. Ignore the registar / final exam schedule for this class.

SCHEDULE (* tentative, subject to change)

9/5 WEEK 1: *** NO MONDAY CLASS *** intro, what's game dev? lab-mod Turtle Wushu
Homework: read + journal Fullerton ch. 1, write complete Wushu rules

9/12 WEEK 2: test Wushu variants, formal elements, lab-mod Checkers
Homework: read + journal Fullerton ch. 2, play Go / Way to Go #1-10 tutorial

9/19 WEEK 3: depth and accessibility, 20 Questions exercise, play Werewolf
Homework: read + journal Hunicke MDA paper, reverse-engineering lab

9/26 WEEK 4: survey of track games, ideation processes !!! BEGIN MIDTERM PROJECT !!!
Homework: read + journal Fullerton ch. 3, group-design and bodystorm midterm

10/3 WEEK 5: *** NO WEDNESDAY CLASS, CMU *** playtest midterm, the magic circle
Homework: read + journal Rooie Rules, cheat / spoil a game, playtest midterms

10/10 WEEK 6: *** NO WEDNESDAY CLASS, DEV DAYS *** playtest midterms
Homework: read + journal Fullerton ch. 9, document + run midterm project playtest

10/17 WEEK 7: finish midterm projects !!! MIDTERM DUE ON WEDS !!!
Homework: download + install Unity on your laptop, do intro worksheets, join Slack

10/24 WEEK 8: intro to Unity, working with 3D space and assets, exporting
Homework: read + journal "The Door Problem", play Proteus, make a poetic landscape

10/31 WEEK 9: *** NO WEDNESDAY CLASS, UBC TALK *** intro to Unity C# code, Unity UI
Homework: read + journal 10PRINT ch. 10+25, play Rat Chaos, make a text adventure

11/7 WEEK 10: vector math, moving stuff around, physics
Homework: read + journal "What Do Prototypes", play Crayon Physics, make Goldberg

11/14 WEEK 11: physics applications, triggers and addforce !!! START FINAL !!!
Homework: read + journal Fullerton ch. 7, group-design and brainstorm project

11/21 WEEK 12: *** NO WEDNESDAY CLASS, THANKSGIVING *** scripting game logic
Homework: read + journal Fullerton ch. 15, iterate on final

11/28 WEEK 13: juice it or lose it, on game feel, playtest final project
Homework: read + journal Zinesters ch. 1, play Unmanned, iterate on final

12/5 WEEK 14: triage and crisis management, playtest final project
Homework: read a project post-partum, iterate on final

12/12 WEEK 15: *** MONDAY IS ON TUESDAY 12/13 *** !!! PRESENT FINAL !!!
Homework: finish final project deliverables, due on 12/19

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)... 4 is grounds for failure.
• 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 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.

STATEMENT OF ACADEMIC INTEGRITY

Plagiarism is presenting someone else's work as though it were 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.
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.