

MAKING GAMES WITH GAME MAKER
COURSE SYLLABUS
FEBRUARY, 2011

Instructor: Noah Sasso

<http://makinggameswithgamemaker.blogspot.com/>

DESCRIPTION

This course covers Game Maker's organizing principles, basic scripting concepts, debugging and play-testing, with an emphasis on rapid prototyping, as well as learning by doing. Each class consists of a discussion and a hands-on workshop in which students will develop a project of their choice. Students will begin to cultivate the creative and technical skills needed to make a small game from start to finish.

TENTATIVE SCHEDULE

WEEK ONE

- About this class
- Why Game Maker? What is Game Maker?
- User Interface overview
- The Resource Tree: Sprites, Sounds, Backgrounds, Paths, Scripts, Fonts, Time Lines, Objects, Rooms

- Scripting vs Drag & Drop
- About GML, Game Maker Language
 - *Example: shmup.gmk*
 - *Example: platformer.gmk*

- Top Four Concepts: Objects, Rooms, Events, Actions
- The event driven approach

- Built-in Functions overview
 - *Examples: Lots!*

OPTIONAL READING:

The MDA framework (Marc LeBlanc)

<http://www.cs.northwestern.edu/~hunicke/pubs/MDA.pdf>

OPTIONAL PLAYING:

Flywrench (Messhof): http://www.messhof.com/filemound/flywrench_1-5.zip

WEEK TWO

- Review, Q&A
- More about the Game Maker Language: in detail!
- Building a simple game with GML: Bomberman!

OPTIONAL READING

Level Design Lesson: In the Pyramid (Anna Anthropy):

<http://www.auntiepixelante.com/?p=459>

OPTIONAL PLAYING

Spelunky (Derek Yu): <http://www.spelunkyworld.com/>

WEEK THREE

- Review, Q&A
- Bomberman, continued
- GML, continued

OPTIONAL READING

Games are not Media (Frank Lantz) - <http://gamedesignadvance.com/?p=1567>

OPTIONAL PLAYING

Hero Core (Daniel Remar): <http://www.remar.se/daniel/herocore.php>

WEEK FOUR

- Review, Q&A
- Extending game maker (dlls & extensions)
 - ExtremePhysics: <http://gmc.yoyogames.com/index.php?showtopic=448115>
 - Particle Designer: <http://gmc.yoyogames.com/index.php?showtopic=290449&hl=particle%20example&st=0>
- Abstraction and the “Game Loop”
 - *Example: spelunky.gmk*
- BUGS! Troubleshooting concepts.

- Game Maker's debug tools.

OPTIONAL PLAYING

Psychosomnium (Cactus): <http://www.charliesgames.com/cactus/psycho1.zip>

OPTIONAL READING

Pushing Buttons (Mick West): <http://cowboyprogramming.com/2007/01/02/pushhing-buttons/>

ADDITIONAL RESOURCES

GMC Forums:

<http://gmc.yoyogames.com/index.php?showforum=33>

Extending game maker:

<http://www.gmtoolbox.com/>

<http://gmc.yoyogames.com/index.php?showtopic=375858>

Tutorials and Examples:

<http://forums.tigsources.com/index.php?topic=3142.0>

<http://code-spot.co.za/2008/09/06/60-ways-to-make-game-maker-projects-more-maintainable/#more-69>

Very good scripting tutorial for beginners:

<http://gmc.yoyogames.com/index.php?showtopic=424410>

Books:

<http://www.amazon.com/Game-Makers-Companion-Jacob-Habgood/dp/1430228261>

http://www.amazon.com/Game-Makers-Apprentice-Development-Beginners/dp/1590596153/ref=pd_sim_b_1