

Media, Marketing, and Communications Scholars

Unreal Engine 4 Advanced

Spring 2017 Syllabus

Part 1: Course Information

Instructor Information

Instructor: Jacob Walters
Room: Morrill Tower 330
Phone: (513) 341-3831
E-mail: walters.610@osu.edu

Course Description

This course will cover geometry, environment, real-time interaction and processes through the use of Unreal Engine 4. Topics to be covered include:

- The engine, its uses and its interface
- Geometry, building, and environment
- Materials, meshes and collisions
- Animation and AI
- Virtual Reality editor

Textbook & Course Materials

Required Text

- There are no required texts for this course

Recommended Texts & Other Readings

- https://docs.unrealengine.com/latest/INT/Videos/PLZlv_N0_O1gb5sdygbSiEU7hb0eomNLdq/1pmPb_TWG-8/index.html

Software Requirements

- 4 GB RAM Minimum
- i5 Processor or equivalent
- GeForce 470 GTX or equivalent

Unreal Engine 4

Spring 2017 Syllabus

Part 2: Topic Outline/Schedule

- **Week 01: What will we be doing?**
 - Review the syllabus
 - Becoming familiar with the launcher and project types.
 - Introduce the level and geometry editing toolbar
 - **HOMEWORK:** Create a new project with a title of your choice
- **Week 02: Geometry Layout**
 - Placement of geometry
 - Distance Snapping
 - **Homework:** Place the first floor piece and construct the wall/floor plan.
 - https://www.youtube.com/watch?v=57MxoF4sy84&list=PLZlv_NO_01gak1_FoAJVrEGiLIploef3F&index=2
- **Week 03: Windows, doors, modular pieces and exposure**
 - Creating doors and frames
 - Spaces from subtractive properties
 - https://www.youtube.com/watch?v=RGxf2SiUBt8&list=PLZlv_NO_01gak1_FoAJVrEGiLIploef3F&index=3
- **Week 04: Applying Materials to our Geometry, Meshes**
 - Applying the materials to our different surfaces
 - Resolution and aspect ratio
 - **HOMEWORK:** Create/cover all of your walls with materials that you decide.
 - Adding support meshes
 - Using the architecture assets
- **Week 05: Decoration and Decorative pieces and basic lighting**
 - Changing light color
 - Enhancing our design and level.
 - Building our glass walls from props
 - **HOMEWORK:** Finish the decorative pillars and glass
 - Further instruction available at:
- **Week 06: Interacting with the glass door and Setting script**

- Inserting slide and door handles
- Creating the blueprint for our sliding glass door
- https://www.youtube.com/watch?v=7Mzz6Ihivc8&index=9&list=PLZlv_N0_O1gak1_FoAJVrEGiLIploef3F
- **Week 07: Props and Lighting**
 - Adding cosmetic and functional lights
 - Local spaces
 - Adding props (table and chairs etc.)
 - Applying physics to props
 - **HOMEWORK:** Spawning more enemies
- **Week 08: Introducing the foliage editor**
 - How the foliage editor works
 - Toolbars
- **Week 09: Animating the enemy and introducing the HUD**
 - Painting foliage
 - Topography
 - **HOMEWORK:** Paint the floor of your environment with foliage
- **Week 10: Packaging and Normal Engine Conclusion**
 - Applying weather and physics
 - Timed environments
- **Week 11: Virtual Reality Level Editor**
 - Using the VR Level Editor
 - Working on the final project prototype
- **Week 12: Finishing the project**
 - A working meeting
 - Answering questions and concerns
 - Expanding and refining media and games on your own
 - The end of semester MMC party

Part 3: Grading Policy

Graded Course Activities

Description	Points
Attendance	36 (3 per meeting)
Assignments	60 (10 per assignment)

Description	Points
Final Project	20
Total Points Possible	116

Homework is to be turned in via email or shown before instructional time.

Part 4: Course Policies

Attend Meetings

Students are expected to attend all class sessions as scheduled.

Participate

Attendance points can be deducted if you are not participating or you are doing other things on the computer during instructional time!

Integrity

Be creative and original. Do not copy the work or blueprints of others in the meeting. Assignments could be counted as incomplete.

"A lot of Indie developers who became 'Overnight Successes' were working at it for 10 years."

-Dan Adelman (Director of Indie Games at Nintendo 2005-20)

