

GAME 310-001: Game Design Studio**Instructor:** Professor Boris Willis**Office:** Art and Design 2024**Office Hours:** M/W 3:00-4:15**Email:** bwillis3@gmu.edu**Credit Hours:** 3**Lectures:** M/W 3:00-4:15**Room:** Art and Design, Room 1018**Term:** Fall 2016**Phone:** (703) 993-3163**NOTE: The process and content of this class is subject to change.****Prerequisites:** GAME 210, GAME 230**Course description:**

This course is for Computer Game Design Majors and it expands on the knowledge established in GAME 210 and 230. The course introduces the Unreal Engine 4.

Learning Outcomes:

Students who complete this course will:

- 1) Have an introductory knowledge of level design using the Unreal Engine.
- 2) Have a basic understanding of scripting using Blueprint.
- 3) Have a basic understanding of using animation and cinematics in Unreal Engine.
- 4) Have a basic understanding the tools used in Unreal Engine.
- 5) Have the experience of working in a team environment on a modern game engine.
- 6) Learn the basic pipeline to import art assets from other programs into Unreal Engine.

Requirements and Evaluation:

1. At the beginning of each class meeting, students should be prepared to discuss the assigned readings, topic assignments. In addition, students should be prepared to discuss with the class the status and stage of their project(s).
2. Students will work on solo and team projects throughout the semester. Students are expected to participate fully in team projects and will be evaluated by their team members as part of their grade. Issues that cannot be resolved with the group must be brought to my immediate attention. Each team member is expected to contribute fully to the project and share the workload.
3. Frequently save multiple versions of your assignments. DO NOT save to the desktop or run a project from a flash drive. Project files and maps must be in the Documents folder in the UE4 Content folder. Backup to online file sharing sites and to your portable drives so you always have more than one copy. Use source control tools. Use the following naming convention for every project, boriswillis_Room_v4 = FirstNameLastName_project-name_version-number. Never use spaces when you name projects!
4. Save Versions. Always have a backup. You can use source control to save multiple version of your work so you can go back and work from a previous point. Older versions of your files may be useful if the file you are working on gets corrupted and cannot be opened or when you mess things up and want to go back to what you had before. Unreal Engine 4 has an Autosave Folder and can recover some files WHEN it crashes.

5. Assignments will be posted to Blackboard and you are responsible for checking the assignments for each week. All assignments are to be uploaded to Blackboard by the due date. Your name and the name of the assignment are to be placed at the starting point of every assignment using text renderer. Please check often for assignments and due dates.

6. When using Unreal Engine 4 on your personal systems, make sure you use the version we are currently working on in class. Versions are not backwards compatible so make sure you are aware of the version you are using. Epic Games updates the Unreal Engine 4 on a regular basis and things change from version to version.

7. Attending class is crucial when working in a team environment. Missing class means your team members have to discuss and make decisions without your input. It often means they don't get updates on your progress as well. Please attend every class and keep your team informed about your progress. Much of, if not most of your work will be done outside of class as the creative process demands a lot of trial and error. Please be mindful of this and don't leave your work to the last minute. **Save Early, Save Often, Save Versions**

Required Texts/Materials: TBD

Recommended Materials:

PC Desktop/Laptop (for working on projects outside of class)

USB Disk Drive AND online file sharing account: For saving/transporting project data

Unreal Engine 4 (Free)

Headphones (also invest in a Y connector so more than one person can listen at a time)

GMU Add/Drop Policy: The last day to drop this class with no tuition liability is September 6th. Last day to drop is September 30th. It is the student's responsibility to check to verify that they are properly enrolled as no credit will be awarded to students who are not.

Academic Integrity

Mason is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas.

Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

GMU Honor Code: <http://catalog.gmu.edu/content.php?catoid=22&navoid=4792> Honor Code:

To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: *Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.*

Grading: Level	Name	XP	Letter Grade
25	Choreographer	1860-2000	A+
24	Dancer	1800	A
23	Dragon	1740	A-
22	Unicorn	1660	B+
21	Shape Shifter	1600	B
20	Warden	1540	B-
19	Healer	1460	C+
18	Ranger	1400	C
17	Mage	1340	C-
16	Rogue	1260	D+
15	Ghost	1200	D
14	Novice	1140	F
13	Meta	1040	F
12	Synergy	900	F
11	Gestalt	840	F
10	Trope	760	F
09	Flow	600	F
08	MDA	540	F
07	Script	460	F
06	Polygon	300	F
05	Pixel	240	F
04	Plane	160	F
03	Int	100	F
02	Float	60	F
01	Noob	0-40	F

You will begin as a level one with 0 XP. The highest level you can reach is level 25. Levels are determined by XP. **Experience Points: Total: 2000XP available for the class.**

Participation- 670 XP

Weekly Process Journal 420 30xp/week (Goals, Achievements, Challenges)

QA Feedback. Mid Alpha and Final 100, Final alpha and final 100

Syllabus Quiz 50

Save Early, Save Often, Save Versions

Mid-term 250XP

50XP for presentation, 50XP for GDD, 50XP for Attendance, 100XP for game

Class Projects 480XP

Class assignments and tutorials.

Paper 150- 3-5 pages

Summary of your evolving game philosophy based on your process journal.

Extra Credit Quizzes 100XP

Extra work/ Extra Credit

Final presentation and project 350XP

25XP Team GDD, 25XP Team Evaluation, 50XP Final Presentation, 100 XP Final Attendance, 150 XP Final Game

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Mason Email Accounts

Students must use their MasonLIVE email account to receive important university information, including messages related to this class. See <http://masonlive.gmu.edu> for more information. All digital communication with the professor must be made using your "masonlive" email account.

Office of Disability Services

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474. . Students must inform the instructor at the beginning of the semester, and the specific accommodation will be arranged through the Disability Resource Center. <http://ods.gmu.edu>

Writing Center: A114 Robinson Hall; (703) 993-1200 <http://writingcenter.gmu.edu>

University Libraries "Ask a Librarian"

<http://library.gmu.edu/mudge/IM/IMRef.html>

Counseling and Psychological Services (CAPS): (703) 993-2380 <http://caps.gmu.edu>

University Policies

The University Catalog, <http://catalog.gmu.edu>, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at <http://universitypolicy.gmu.edu/>. All members of the university community are responsible for knowing and following established policies.

Sign up for the Mason Alert System by visiting the website <https://alert.gmu.edu>, and an emergency poster exists in each classroom explaining what to do in the event of crises; emergency procedures exists on <http://www.gmu.edu/service/cert> .

NOTE: Cell phones must be turned off in class.

Class Schedule: (Subject to Change)

Week 1

Aug 29: Lecture: Overview of syllabus, class requirements and projects.

Tutorial: Unreal Engine 4 Interface, prototyping.

(Find a real world location to base your mid-term racetrack on.)

Aug 31: Tutorial, Begin Mid-Term Racetrack Project

Syllabus Quiz: (You must get 100% to get XP)

Week 2

Sept 5 Labor Day: No classes

Sept 7: Tutorial:

Due: Journal

Week 3

Sept 12: Due: Journal.

Tutorial:

Sept 14:

Tutorial:

Week 4

Sept 19: Due: Journal

Tutorial:

Sept 21: Due: Mid-Term GDD

Tutorial:

Week 5

Sept 26: Due: Journal, Tutorial:

Sept 28: Tutorial:

Week 6

Oct 3: Journal, Tutorial:

Save Early, Save Often, Save Versions

Oct 5:

Week 7

Oct 11: Journal, Mid-Term Project Presentations

Oct 12: Mid-Term Game Presentations

Week 8

Oct 17: Journal, Choose Final Teams- Team Game Brainstorm

Oct 19: Sprint 1-Team Game Lab Time

Week 9

Oct 24: Due: Journal, Final Team GDD and Level designs

Oct 26: Sprint 1-Team Game Lab Time

Week 10

Oct 31: Journal, Sprint 1-Team Game Lab Time

Nov 2: Alpha Due: Team Presentations

Week 11

Nov 7: Journal, Sprint 2-Team Game Lab Time

Nov 9: Sprint 2-Team Game Lab Time

Week 12

Nov 14: Journal, Sprint 3-Team Game Lab Time

Nov 16: Beta Due: Team Presentations

Week 13

Nov 21: Journal, Sprint 3-Team Game Lab Time

Week 14

Nov 28: Journal, Sprint 3-Team Game Lab Time 8

Nov 30: Sprint 3-Team Game Lab Time **QA Testing**

Week 15

Dec 5: Journal, Sprint 3-Team Game Lab Time

Dec 7: Team Project Presentations (Attendance Mandatory)
Final Sprint

Final Game Presentations (Attendance Mandatory)

Dec 19: 1:30-4:15 Final Game Presentations Game Feedback.
Paper Due.