GAM 3352-01
GAME DEVELOPMENT
TUESDAYS / THURSDAYS (1:35 PM – 3:15 PM)
FALL 2021 SYLLABUS AND COURSE CALENDAR

Classroom: NQSC 125c
Instructor: Brian Heagney
Office: NQSC 331

Professor Heagney's Fall 2020 Office Hours Virtual sessions preferred				
Monday	Tuesday	Wednesday	Thursday	Friday
2:15 -3:15 PM	10 – 11:30 AM	2:15 -3:15 PM	10 – 11:30 AM	

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COURSE DESCRIPTION

Overview of the game development process from conception to the publisher. The shift from author to team based development and the roles and responsibilities of team members is stressed. Students will collaborate on the design and preliminary work-up of a game. Four credits. Prerequisite: COM 2252.

COURSE OBJECTIVES

	By the end of the course, students will	Method for Assessing this Learning Outcome
STUDENT LEARNING OUTCOMES	Become certified in Scrum Foundations, obtaining a professional certificate from CertiProf	Certiprof Exam
	Be able to present their work professionally, consistent with game industry standards and trends	Game Design Portfolio; LinkedIn Profile

	Be competent in image and audio authoring technology skills relevant to video game and related industries.	Opening a Door II, Group Game
	Be competent in video game development technology skills relevant to video game and related industries.	All major game projects
	Understand and be able to implement the game development process from conception to publishing	MVP assignments and all major projects
	Work effectively and efficiently in group game development projects	Group Game
	Employ theoretical and professional vocabulary relevant to the game development process	MVP assignments
	Understand and be able to implement versioning software for game development	MVP assignments and all major projects
	Understand and be able to implement agile development methods, particularly SCRUM	MVP assignments, all major projects, and Certiprof exam

REQUIRED MATERIALS

- There is no textbook. All assigned readings and tutorials are hosted freely online.
- External drive (such as a flash drive or Lacie external hard drive) – 8GB or higher (16GB recommended). Bring this to every class. Flash drives are available for purchase in the university bookstore or at any store that sells electronics (Best Buy, Target, Staples, Office Depot, etc.

Software Requirements:

- Unreal Engine 4 (UE4) Version 4.26
- Git AND Github Desktop

User-account Requirements:

- Epic Games user account for use with the Engine, and the Epic Games Online Learning Academy
- Github user account to use for collaborating on game projects in class

FLEX-CLAUSE

Due to the nature of holding University classes during a national pandemic, I am reserving the right for any part of this course to change based on pressures from anything related to COVID-19. This includes any issues faced by students in this course, but also issues faced by myself, the instructor.

I am making it my mission to deliver the content to you, the student, and if we need to be flexible in the face of a pandemic, we will do what it takes to get through any obstacles thrown in our way.

ASSIGNMENTS AND GRADING

- **Game Design Portfolio (5% of grade)** – Students will build an online "game design" portfolio that best displays their work.

  Students interested in seeking a career in the video game industry will find this assignment useful for preparing for seeking roles in the video game industry; however students who want to focus on other industries can adapt the assignment to meet the needs of their preferred industry.

- **LinkedIn Profile (4% of grade)** – Students will continue to update and refine their LinkedIn profile pages.

- **MVPs (36% of grade)** – MVP stands for "Minimum Viable Product" which is an artifact of Scrum. Each week, students will be spending their outside of class time working to reach very specific development goals.

- **Opening a Door I (15% of grade):** Students will learn how to develop an interactive 3D event (such as opening a door) within AAA game development software (UE4). Students will apply a basic understanding of scripting events within UE4's visual scripting tools (Blueprints) combined with game flow logic to develop a user-activated "door opening" scenario.

- **Open a Door II (20% of grade):** Students will build onto the previous project by adding material shaders, audio, UI components, and other game assets to complete a small fully textured room with the working "door". Students will use Github for version-control, and apply the scrum framework of agile development.

- **Group Game (30% of grade)** – In groups, students will develop a game using the Unreal Engine, as well as using Github for version control and applying the scrum framework of agile development.

- **Certiprof Exam (5% of grade)** – At the end of the semester, students will take a proctored Certiprof exam focusing on Scrum Foundations. The exam is based on required readings, and students will also be spending the entire semester experiencing the concepts covered in the exam.

EXPECTATIONS FOR OUT-OF-CLASS WORK

Out-of-Class Work:	In addition to attending class and completing all course requirements, students are expected to spend at least 2 hours each week engaged in out-ofclass work (i.e., reading, studying, doing homework, working on projects, etc.) for every hour of credit earned in this course.

According to HPU's accreditation guidelines, for every 1 hour of credit earned in a course, students are expected to spend at least 2 hours each week engaged in out-of-class work (i.e., reading, studying, doing homework, working on projects, etc.). Therefore, in a 4-credit course, students are expected to commit an average of at least eight hours per week outside of class. The estimates listed below reflect the out-of-class time expectations for a typical student – some students might need more or less time on these assignments.

- Game Design Portfolio – approx. 8 hrs
- Assigned readings and videos – approx 25 hours over the course of the semester
- Forums – approx 23 hours over the course of the semester
- Open a Door I – approx. 12 hrs out of class
- Open a Door II – approx. 12 hrs out of class
- Group Mobile Game – approx. 28 hrs

DEADLINES

See School of Communication policy at end of this document (short version = late work loses one letter grade per day; no late work is accepted after three days).

GRADING

Grades are assigned as follows (there is no "rounding" of grades):

A (superior) – superior quality (90-100%)	B (excellent) – clearly above average (80-89%)	C (average) satisfactory work (70-79%)	D (inferior) – good enough to credit (60-69%)	F (failure) –work fails to meet the minimum expectations (0-59.9%)
A+ (97 - 100)	B+ (87 - 89.9)	C+ (77 - 79.9)	D+ (67 - 69.9)	
A (93 - 96.9)	B (83 - 86.9)	C (73 - 76.9)	D (63 - 66.9)	F (0-59.9%)
A-(90 - 92.9)	B-(80 - 82.9)	C-(70 - 72.9)	D-(60 - 62.9)	

Please note that simply completing all required elements of an assignment does not entitle you to an A. Acceptable work of average quality earns a C. You must go above average expectations to receive an above average grade. This mimics the professional world of communication, where basic proficiency might get you in the door at the entry level, but creative thinking and a willingness to go beyond the minimum expectations are necessary to get noticed and advance.

The School of Communication <u>Emphasizes</u> Analytical Thinking, Communication Skills, Interpretation of Converging Information, Technological Development, and Integration of Theory and Practice

RUBRICS

The following rubric represents the base rubric for major assignments (slight modifications will be made depending on the nature of the assignment):

	SUPERLATIVE (90-100%)	EXCEEDS EXPECTATIONS (80-89%)	MEETS EXPECATIONS (70-79%)	BELOW EXPECTATIONS (60-69%)	UNACCEPTABLE (0-59%)
Project Management (25%)	Meets all requirements and shows both exceptionally thorough planning AND exceptional organization on the part of the student.	Meets all requirements and shows either exceptionally thorough planning OR exceptional organization on the part of the student	Required elements are present and submitted correctly, technical specs are correct, and project files show organization	Not altogether satisfactory, but good enough to receive credit for the assignment.	Does not meet minimum expectations of the assignment.
Technical Proficiency (25%)	Project employs advanced tools and techniques to effectively improve the project AND makes exceptionally creative use of required software and equipment.	Project either employs advanced tools and techniques to effectively improve the project OR makes exceptionally creative use of required software and equipment.	Project effectively utilizes required software and equipment.	Not altogether satisfactory, but good enough to receive credit for the assignment.	Does not meet minimum expectations of the assignment.
Overall Concept (25%)	Reserved for the MOST creative and compelling concepts and approaches in the class AND executes the concept exceptionally well.	Concept and/or approach is exceptionally creative or compelling OR executes a concept exceptionally well.	Project effectively communicates a required message and/or story.	Not altogether satisfactory, but good enough to receive credit for the assignment.	Does not meet minimum expectations of the assignment.
Agile Development Principles (25%)	Reserved for the MOST disciplined and proactive group in the class, as it relates to following and altering the project schedule.	Group demonstrates exceptional discipline and is proactive beyond that of average student group, as it relates to following and altering the project schedule.	Project demonstrates a basic understanding of adhering to and altering project schedule.	Not altogether satisfactory, but good enough to receive credit for the assignment.	Does not meet minimum expectations of the assignment.

DIGITAL PORTFOLIO

All COM students are encouraged to develop a digital portfolio on their LinkedIn page. The digital portfolio is an online collection of the work you've done during your time at High Point University.

In this class, you will produce several projects that could be suitable for your digital portfolio. If you are proud of your work, then consider posting it to your LinkedIn page to show a potential employer what you are capable of.

In this class, the LinkedIn profile will NOT be graded, however you will note that a "Game Design" online portfolio is required and will be graded.

WRITING STYLES

<u>Professional work</u> should be written in the latest revisions of the Associated Press (AP) Style Manuals for print and broadcast. (Yes, AP also has a style manual for broadcast.) The School requires <u>academic papers</u> to be written in the latest revision of the American Psychological Association (APA) style. If you're unfamiliar with this style, please see the Chair or the Dean. Other academic styles are not accepted unless the student work is written for a publication or event that requires a different format. Having students learn multiple writing styles only confuses them.

PLAGIARISM AND CHEATING

Each of you signed the HPU Honor Code and it is your responsibility to abide by it. Cheating or plagiarism can result in failure for the course. Theft of intellectual property (such as images, audio, or video) is equivalent to plagiarism. See the School of Communication policies on plagiarism and copyright at the end of this document.

On occasion, the professor will provide media/materials for use in class. These materials may include photos, video/audio files, scripts, and design templates. These items are copyrighted (by the professor and others) and may only be used in classroom exercises as specified by the professor. Consequently, students may not use media supplied by the professor in their projects unless they have been given permission to do so. Student projects containing unauthorized material provided by the professor may be penalized or disqualified. Students also may not share, distribute, or post online any media that contains media elements provided by the professor.

In addition, the professor holds the copyright on all course materials including lectures, PowerPoint presentations, handouts, video/audio media, etc. Consequently, course sessions and materials cannot be recorded, copied, or distributed in any form without the written permission of the professor.

Plagiarism involves copying the work of others and/or representing it as your own without attribution. Students should not use any media created by another student or outside entity (e.g. downloaded online) in their assignments without prior permission from the professor. In addition, students should not copy edited sequences, documents, sessions, or projects and represent them as their own. Incidents of copyright infringement and plagiarism will be treated as University Honor Code violations.

DIVERSITY

An appreciation for diversity is an important value in an academic environment and critical to relationships in the professional world. In this course we will consider diversity of users as it relates to game platform (PC / mobile / PS4 / etc) as well as user abilities and disabilities.

GRADE APPEAL

If a student has a complaint or concern about a faculty member regarding a grade, they should first try to resolve it with the instructor in question. If the complaint is not resolved through this interaction, the student should then go to the Department Chair. If the instructor of the course also serves as a Chair, then the student should approach the Dean as the first step in the process.

For this course, a student should pursue the following process:

> 1. Talk with the instructor of the course,
>
> 2. Talk with Dr. Stefan Hall who serves as the Chair of the Department of Game Design

The decision of the Chair is final.

GRIEVANCE PROCEDURE

If a student has a complaint or concern about a faculty member regarding any matter other than a grade, they should first try to resolve it with the instructor in question. If the complaint is not resolved through this interaction, the student should then go to:

> 1.   the Department Chair;
>
> 2.   the Dean of the School of Communication; then
>
> 3.   the Senior Vice-President of Academic Affairs, which is the final step in the grievance process.

Bypassing any of these steps—going directly to the president, for example—will not resolve the issue and will only delay resolution. Senior administration will not deal with grievance issue unless it has been discussed at the appropriate level.

For this course, a student should pursue the following process:

> 1. Talk with the instructor of the course.
>
> 2. Talk with Dr. Stefan Hall who serves as the Chair of the Department of Game Design.
>
> 3. Talk with Dr. McDermott, who serves as the Dean of the Nido R. Qubein School of Communication.
>
> 4. Talk with Dr. Bauer, who serves as the Senior Vice President of Academic Affairs of High Point University.
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> The decision of the Senior Vice President of Academic Affairs is final.

STARFISH SYLLABUS STATEMENT

High Point University cares about your success!

This course is part of a HPU initiative that utilizes Starfish Connect, a communication tool for students and faculty. Through Starfish, instructors, coaches, and advisors provide feedback to you about course progress by emailing you about your academic performance. The emails are designed to be helpful by identifying strategies that increase your success in courses. Be sure to open any emails you receive and follow the recommendations.

Your instructor, coach, or advisor may also recommend that you contact a specific campus resource, such as the Learning Lab or Counseling Center. If an instructor makes a referral, you may also be contacted directly by this campus service as a follow--up.

Starfish also allows you to schedule appointments with various offices and individuals across campus and request help on a variety of topics.

QUARANTINE + SOFTWARE (GAM COURSES)

If students must be quarantined due to COVID-related policies and procedures, it is up to the student to choose one of the two options detailed below:

1. 1) Attend class virtually using the blackboard link, 2) use a laptop with all of the required software necessary to follow along in class, and 3) submit assignments on time.
2. 1) Attend class virtually using the blackboard link, 2) submit any missed assignments within a 2-week grace period.

BLACKBOARD

I am a self-avowed blackboard nut and evangelist. I use blackboard for all of my class administration, and therefore you MUST use blackboard as well. If you have never used Blackboard before, it will become your friend. If Blackboard is already your friend, you will become BFFs. If you dislike Blackboard, then please come see me and I will evangelize to you appropriately. The following is how I use Blackboard:

Assignments: All assignments will be hosted and explained in Blackboard. Every major assignment will have a rubric attached to it in Blackboard, which will help you understand how I will grade your submissions.

For every assignment, you MUST submit something through Blackboard. <u>If you complete an assignment and do not submit it to Blackboard, it is as if you have not completed it and it will be counted as late.</u>

Assignment Calendar: Blackboard has an amazing assignment calendar associated with it. When you go to the Blackboard assignment calendar, you will be able to see EVERY assignment and quiz that is assigned so you won't ever forget!

Quizzes: All quizzes will be administered through Blackboard.

Forums: All forum assignments must be completed through the forums hosted on blackboard.

Syllabus: This syllabus will also be hosted on Blackboard.

Blackboard is Ruler: Blackboard assignment dates and descriptions take precedence over all dates/descriptions on this syllabus.

FEEDBACK

Feedback for ALL assignments (including final assignments) will be conducted through blackboard rubrics.

TENTATIVE SCHEDULE

This is a tentative schedule that is subject to change. Details for each week's assignments will be posted on Blackboard.

Week	Day	Date		Topic	Readings (To read before)		Assignments Due
1	Tuesday	8/24/2021		Intro to UE4	UE4 Intro through Unreal Engine Academy	Intro to UE4 with Github	
	Thursday	8/26/2021				Intro to UE4 with Github	Due for class: Sketch of door / button
2	Tuesday	8/31/2021	The Door Problem: Part 1	Intro to Blueprints	Creating a button, and a door	Intro to Blueprints	Due before class: MVP 1: Greybox of level
	Thursday	9/2/2021				Intro to Blueprints	
3	Tuesday	9/7/2021		Advanced Blueprints	Connecting the button and door	Advanced Blueprints	
	Thursday	9/9/2021				Advanced Blueprints	Due: Door 01
4	Tuesday	9/14/2021	The Door Problem: Part 2	Intro to Shaders	Shaders video from UE4	In-Class Activity: Shaders and Instances	
	Thursday	9/16/2021				In-Class: Work on Door 2 Project	MVP 2: Adding Shaders
5	Tuesday	9/21/2021		Intro to Audio	Video series on audio	In-class Activity: Adding ambience	
	Thursday	9/23/2021				In-Class Activity: Adding randomized SFX	MVP 3: Adding audio

6	Tuesday	9/28/2021		Intro to UI Widgets	Video series on Start Screen + Pickup	In-Class Activity: Start Screen	
	Thursday	9/30/2021				In-Class Activity: Pickup	MVP 4: Adding UI widgets
7	Tuesday	10/5/2021		Portfolio Work	Review portfolio sites	Lecture: Game Portfolios	
	Thursday	10/7/2021				In-Class Activity: Portfolio Design	Due: Door 2
FALL BREAK							
8	Tuesday	10/19/2021	Form Teams	Pitches	Pitch Game Ideas	In-Class: Presentations	PRESENT IN CLASS: Game Design Pitches
	Thursday	10/21/2021			Form Groups	In-Class: Interview for teams	
9	Tuesday	10/26/2021	Group Game SCRUM	3D Modeling	3D Modeling	In-class activity: Unwrapping a Box	
	Thursday	10/28/2021				In-class activity: Building an end-table from a box	MVP5: Adding 3D Models
10	Tuesday	11/2/2021		Sprint 1	Role-Specific Tutorials	Stand-Up, develop sprint backlog, write user-stories	
	Thursday	11/4/2021				Dev Work Day	

11	Tuesday	11/9/2021		Sprint 2	Role-Specific Tutorials	Stand-Up, develop sprint backlog, write user-stories	Due before Class: MVP 6
	Thursday	11/11/2021				Dev Work Day	
12	Tuesday	11/16/2021		Sprint 3	Role-Specific Tutorials	Stand-Up, develop sprint backlog, write user-stories	Due before Class: MVP 7
	Thursday	11/18/2021				Dev Work Day	
13	Tuesday	11/23/2021		Sprint 4	Role-Specific Tutorials	Stand-Up, develop sprint backlog, write user-stories	Due before Class: MVP 8
	Thursday	11/25/2021			THANKSGIVING BREAK		
14	Tuesday	11/30/2021		Sprint 5	Role-Specific Tutorials	Dev Work Day	
	Thursday	12/2/2021				Dev Work Day	
15	Tuesday	12/7/2021		Publish	Role-Specific Tutorials	Work on Game Page	Due before Class: MVP 9
Final	Tuesday	12/14/2021 8 AM – 11 AM					Certiprof Exam in-class Group Game Due

School of Communication Policies, Practices and Expectations

Students are expected to adhere to all standards outlined in the School of Communication's Policies, Practices, and Expectations (located at http://www.highpoint.edu/communication/files/nqsc_syllabus_policies.pdf) unless alternate standards are specifically outlined elsewhere in this syllabus.

The School of Communication <u>Emphasizes</u> Analytical Thinking, Communication Skills, Interpretation of Converging Information, Technological Development, and Integration of Theory and Practice