GAM 4412-01
DIGITAL GAME PROTOTYPING
TUESDAYS / THURSDAYS (11:40 AM – 1:20 PM)
FALL 2021 SYLLABUS AND COURSE CALENDAR

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

Professor Heagney's Fall 2021 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

Students learn to make prototypes for digital games using digital and analog methods. The process of game testing and the role of prototyping in the game development process are examined. Students will learn rapid prototyping skills using a variety of digital development tools. Prerequisite: GAM 2252. Four Credits

COURSE OBJECTIVES

	By the end of the course, students will	**Method for Assessing this Learning Outcome**
STUDENT LEARNING OUTCOMES	Understand the importance of prototyping in the design and development of video games	Blog posts
	be able to develop rapid prototypes for a variety of games and gameplay experiences	All major projects
	be able to use AAA game engines to code and script for playtesting and prototyping purposes	Toys I, II, and III

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

	be able to have fun while developing ideas in AAA and Indie game engines	All major projects

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

- **Blog Posts (20% of grade)** – Students will use blogger to post weekly updates of their progression in developing prototypes.

- **UE4 Prototype (20% of grade)** – Students will develop a prototype of a complete 3D level, focusing on world-extent, views and composition, and more. The purpose of this assignment is to normalize grey-boxing and focusing on a singular aspect of game design (level extent) and avoiding getting lost in the numerous other details of game development.

- **UI / UX Prototype (20% of grade)** – Students will use a game engine or software of their choice to develop a prototype of UI screens complete with animations and innovative design.

- **Toy I (10% of grade):** Students will engage in the prototyping ethic of exploring a game concept or idea as a toy, to quickly develop and iterate an interactive mechanic.

- **Toy II (10% of grade):** Students will engage in the prototyping ethic of exploring a second game concept or idea as a toy, to quickly develop and iterate an interactive mechanic.

- **Toy III (10% of grade)** – Students will engage in the prototyping ethic of exploring a third game concept or idea as a toy, to quickly develop and iterate an interactive mechanic.

- **Group Game (10% of grade)** – After presenting previous toy concepts to the class, students will form groups with the goal of combining their toys to create an original and unique game prototype.

BLOG POST FORMATTING

All blog posts require two very specific components: bold headers, and what I am now calling The Heagney Space.

Bold Headers

I require headers because headers help divide the reading up in to digestible parts. This syllabus has headers such as "Blog Post Formatting" or "Digital Portfolio". If you need to scan to a particular area quickly, you can. Before you even start reading a paragraph, you know what it's going to be about.

If you only have one header at the very beginning of your blog post, then it technically is not a header, it is a title. Therefore, there must be multiple headers (2 or more!) throughout the blog post in order to qualify for this requirement.

The Heagney Space

All blog posts must contain bold headers (to divide the blog post into sections) as well as what I call "The Heagney Space", which is defined as a visible break the width of a single spacing between two paragraphs.

Note, The Heagney Space is not the space between a header and a paragraph, or between an image and a paragraph. It is only the visible space between two paragraphs. In order to include The Heagney Space, there must be at least one instance of two or more paragraphs beneath one header.

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.

- Assigned readings and videos – approx 34 hours over the course of the semester
- Blog Posts – approx. 13 hrs
- UE4 Level Prototype – approx. 16 hours over the course of the semester
- UI / UX Prototype – approx. 14 hrs out of class
- Toy I – approx. 10 hrs out of class
- Toy II – approx. 10 hrs out of class
- Toy III – approx. 6 hrs out of class
- Group Game – approx. 17 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.

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.

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.

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.

The decision of the Senior Vice President of Academic Affairs is final.

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	Class	Assignments Due	Estimated Hours
1	**Tuesday**	**8/24/2021**	**UE4 Level Prototype**	**Intro to UE4**	Intro to the class & Github		Readings / Videos: 4 hours Blog post: 2 hours UE4 Level Project: 2 hours
	Thursday	**8/26/2021**			Intro to UE4	Blog 1: Level Description	
2	**Tuesday**	**8/31/2021**		**Level Design in UE4**	Greyboxing & Lighting		Readings / Videos: 2 hours Blog post: 2 hours UE4 Level Project: 4 hours
	Thursday	**9/2/2021**			Working with Blueprints	Blog 2: Beginning and End	
3	**Tuesday**	**9/7/2021**		**Playtesting and Revising**	Playtesting & Revising		Readings / Videos: 4 hours Blog post: 2 hours UE4 Level Project: 2 hours
	Thursday	**9/9/2021**			Playtesting & Revising	Blog 3: Adding a "toy"	
4	**Tuesday**	**9/14/2021**		**Playtesting and Revising**	Playtesting & Revising		UE4 Level Project: 8 hours
	Thursday	**9/16/2021**			Playtesting & Revising	UE4 Prototype Due	
5	**Tuesday**	**9/21/2021**	**UI / UX Prototyping**	**Intro to UI / UX**	Lecture: Intro to UX / UI Prototyping		Readings / Videos: 4 hours Blog post: 2 hours UI / UX Project: 2 hours
	Thursday	**9/23/2021**			Activity: Wireframing	Blog 4: Match 3 Idea	

6	**Tuesday**	**9/28/2021**		**Animation**	Activity: Animating the Start Screen		Readings / Videos: 2 hours

Blog post: 2 hours

UI / UX Project: 4 hours |
	Thursday	**9/30/2021**			Lecture: Animating in game & non-game engines	Blog 5: Progress on Wire-frames	
7	**Tuesday**	**10/5/2021**		**Finalizing UX Prototype**	Activity: Animating digitally		UI / UX Project: 8 hours
	Thursday	**10/7/2021**			Activity: Work on projects in-class	UX Low-Fi Prototype Due	
FALL BREAK							
8	**Tuesday**	**10/19/2021**	**UE4 "Toy I"**		Lecture: Toys and UE4		Readings / Videos: 3 hours

Blog post: 1 hr

Toy I Project: 4 hours |
| | **Thursday** | **10/21/2021** | | | Discussion: Toys and UE4 | Blog 6: Toy I idea | |
| **9** | **Tuesday** | **10/26/2021** | | | Discussion: student's toys progress | | Readings / Videos: 2 hours

Toy I Project: 6 hours |
| | **Thursday** | **10/28/2021** | | | Discussion: student's toys progress | Toy 1 Project Due | |
| **10** | **Tuesday** | **11/2/2021** | **UE4 "Toy II"** | | Activity: Workshopping UI | | Readings / Videos: 3 hours

Blog post: 1 hr

Toy II Project: 4 hours |
| | **Thursday** | **11/4/2021** | | | Activity: Workshopping UI | Blog 7: Toy II Idea | |
| **11** | **Tuesday** | **11/9/2021** | | | Activity: What is fun? | | Readings / Videos: 2 hours

Toy II Project: 6 hours |
| | **Thursday** | **11/11/2021** | | | Activity: What is fun? | Toy 2 Project Due | |

12	**Tuesday**	**11/16/2021**	**UE4 "Toy III"**		Activity: Play each other's fun		Readings / Videos: 2 hours Toy III Project: 6 hours
	Thursday	**11/18/2021**			Activity: Debugging	Toy 3 Project Due	
13	**Tuesday**	**11/23/2021**	**Group Game with toys**		Activity: Forming Groups and roles	Come to class ready to share toys and brainstorm game ideas	Readings / Videos: 2 hours Blog: 1 hour Group Toy Project: 5 hours
	Thursday	**11/25/2021**					
14	**Tuesday**	**11/30/2021**			Activity: present research for prototyping	Blog 8: Group game exploration topic	Readings / Videos: 2 hours Group Toy Project: 6 hours
	Thursday	**12/2/2021**			Activity: prototyping		
15	**Tuesday**	**12/7/2021**			Activity: prototpying		Readings / Videos: 2 hours Group Toy Project: 6 hours
Final	Tuesday	12/14/2021 3:30 - 6:30 pm				Group game prototype 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.