
GAM 3352-01

GAME DEVELOPMENT

T/TH 1:35 PM – 3:15 PM

FALL 2023 SYLLABUS AND COURSE CALENDAR

Classroom: NQSC 125C

Instructor: Brian Heagney

Office: NQSC 341

Professor Heagney's Office Hours				
Monday	Tuesday	Wednesday	Thursday	Friday
1:00 - 2:30 PM	10 - 11:00 AM	1:00 - 2:30 PM	10 - 11:00 AM	

Phone: x 9063 Cell phone: 336-456-2672

Email: bheagney@highpoint.edu

LinkedIn: www.linkedin.com/in/brianheagney/

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: GAM 2252

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.

COURSE OBJECTIVES

Student Learning Outcomes:	By the end of the course, students should be able to:	Method for Assessing this Learning Outcome
	Become certified in Scrum Foundations, obtaining a professional certificate from CertiProf	Certiprof Exam
	present their work professionally, consistent with game industry standards and trends	Game Design Portfolio
	be competent in image and audio authoring technology skills relevant to video game and related industries.	3D Modeling / Materials; UI
	be competent in video game development technology skills relevant to video game and related industries.	All major projects
	work effectively and efficiently in group game development projects	All major projects
	understand and be able to implement versioning software for game development	All major projects
	understand and be able to implement agile development methods, particularly SCRUM	All major projects & Certiprof Exam

TEXTBOOKS AND REQUIRED COURSE MATERIALS

- **NO TEXTBOOK**—While there will be assigned readings and videos for this course, all materials are available online for no cost. Details for weekly readings will be hosted on blackboard.
- A **USB flash drive 16GB** (or higher) OR online hosting space. Every student's storage space will differ. Some students have used 10 GB, some students have used much more. While we will be using Github and Github Desktop to push and pull our game files, students will need to keep track of 3D models, Photoshop files, Audition files, etc. Ensure all of your assets are available for every class.
- **Software/Computer Labs** – There will be a lot of use of digital software for this class, all of which are installed on the computers in NQSC 125C (The Game Lab). It is expected that you will have to organize your time accordingly to use this software, ensuring that you schedule time to work in the Game Lab when there is not another class going on.

User Account Requirements:

- Epic Games user account
- Atlassian: Jira user account
- Github.com user account

ASSIGNMENTS AND GRADING

- **TOOLS 1: Github + UE5 + Jira (10% of grade)** – This assignment will focus on learning how to use Github Desktop with Unreal Engine, and Jira. Students will use Github to manage group work on their collaborative project. Students will use Jira to write user stories, set up sprints, and generally prepare for a semester of managing and tracking a game project collaboratively with a team. Full details will be on Blackboard.
- **TOOLS 2: Blender + Substance (3D Modeling) (15% of grade)** – This assignment will serve as an introduction to 3D modeling for games, along with some material development in Adobe Substance Painter, and shader development in Unreal Engine. Full details will be on Blackboard.
- **TOOLS 3: Blueprinting (Not Just a Button and a Door) (20% of grade)** – Students will learn how to program interactivity in Unreal Engine using blueprints based on making a button open a door. Students will then advance that understanding to develop a working puzzle or interaction for a “mission” or “quest” for their group project. Full details will be on Blackboard.
- **TOOLS 4: UMG (10% of grade)** – Students will learn Unreal Engine’s UMG Widget system for developing HUD content to enhance their puzzle or mission in their group game. Full details will be on Blackboard.
- **TOOLS 5: Audition for Sound Design (10% of grade)** – Students will incorporate audio into their project by using downloadable free and fair use audio tracks as well as using Adobe Audition to record and enhance original audio recordings. Full details will be on Blackboard.
- **Portfolio (10% of grade)** – Students in the Game Design Program at High Point University will be maintaining a Game Design portfolio. Students will be producing work that could potentially be placed in their portfolios this semester. Full details will be on Blackboard.
- **Certiprof Exam (5% of grade)** – The Final Exam Block will consist of a proctored exam on Scrum, administered through Certiprof.
- **Quizzes (10% of grade)** – There will be short online quizzes based on assignment texts and assigned readings and videos. In this course, quizzes must be taken to advance through the class modules. All quizzes will be available on Blackboard.
- **Participation (10% of grade)** – Because this course is extremely reliant upon group work, participation in the class is imperative. Participation points will be given based on how integrated the student is in class group work and activities.

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-of class work (i.e., reading, studying, doing homework, working on projects, etc.) for every hour of credit earned in this course.
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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. (In a 2-credit course that meets for half of the semester, you are still expected to commit to an average of eight hours per week.) 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 & Videos – approx. 33 hrs out of class
- TOOLS 1: Github + UE5 + Jira – approx. 10 hrs out of class
- TOOLS 2: Blender + Substance – approx. 15 hrs out of class
- TOOLS 3: Blueprinting – approx. 23 hrs out of class
- TOOLS 4: UMG – approx. 13 hrs out of class
- TOOLS 5: Audition for Sound Design – approx. 14 hrs out of class
- Portfolio – approx. 12 hrs out of class

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

Why I don't round up: **(B+ plus B+ plus B+) / 3 = B+ ergo (89.9 + 89.9 + 89.9) / 3 = 89.9**

A (superior) – superior quality (90-100%)	B (excellent) – clearly above average (80-89.9%)	C (average) satisfactory work (70-79.9%)	D (inferior) – good enough to credit (60-69.9%)	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)	F (0-59.9%)
A (93 - 96.9)	B (83 - 86.9)	C (73 - 76.9)	D (63 - 66.9)	
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.

Submissions for assignments:

All students must use blackboard to submit to every assignment (except "participation"). If a student does not submit to blackboard, then the professor will not be able to offer feedback, the student will receive a 0%, and the assignment will be counted as "late".

Most of the time the assignment will list what you will need to submit. If there is no official submission request from the professor, use best judgement based on knowing that the professor will review all of your work. You will very likely need to submit all files that you worked on which could include word documents, animation files, 3D modeling files, etc.

In the event that you are working on a class repository that everyone has access to and you think that you don't need to "submit" anything, remember that you **MUST** submit something to blackboard in order to receive a grade and feedback. If it is true that you do not "need" to submit an actual file, then you still must submit something to the blackboard assignment, such as a note of where to find your important game level, a short write-up of how your submission responds to the assignment, or at minimum a note saying "Hello, Heagney!"

Remember: If you don't submit anything to Blackboard, it's as if you've submitted nothing at all.

Feedback

All students will receive feedback through blackboard rubrics. If you don't know how to access comments on the rubrics, seek help! (I can help.)

Grade Availability

This class is based on 1000 points. Once assignments are graded and posted, your grade will automatically update and be available on blackboard. This grade will be based on the current number of points you've earned, divided by the number of points that have been available up to that point.

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 Nido R. Qubein School of Communication's Game Design department.

The decision of the Chair/Dean 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 Core Courses Coordinator of the Nido R. Qubein School of Communication.
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 is final.

POLICIES FOR ASSIGNMENTS & EXAMS

Late work

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).

Makeup Exams

If this course has quizzes, then quiz due dates are final. Because the nature of my quizzes are that they are online and readily available, make-up exams will only be allowed due to typical reasons such as hospitalization or major accident or incident. Please discuss this with me in person.

ATTENDANCE POLICY

After two unexcused absences you will receive a Starfish notice (because we care). After a **SIXTH ABSENSE** you will be **dropped from the class**. Exceptions will only be granted for university-sanctioned events (with prior notice) or hospitalization (with a doctor's note). Tardies are also unacceptable. Be on time. Better yet, be early. Three tardies will equal an absence. Students will not be permitted to make up grades for work missed due to an unexcused absence or tardy.

DIVERSITY

This course relies on students considering the diverse nature of players as they design for differing skills and abilities. This course also encourages students to understand the diverse nature of their game design group, in terms of skills and backgrounds, and how to manage iterating a game successfully amidst that diversity.

OARS ACCOMMODATIONS IN THE CLASSROOM

High Point University welcomes students with disabilities into our educational programs. HPU promotes efforts to provide equal access and a culture of inclusion without altering the essential elements of coursework. If you anticipate or experience academic barriers that may be due to disability, including but not limited to, chronic medical conditions, Deaf or hard of hearing, learning disability, mental health, or vision impairment, please contact the Office of Accessibility Resources and Services at 336-841-9026 or OARS@highpoint.edu. The OARS office is located on the 4th floor of Smith Library

If you have an OARS accommodation letter, you are required to do the following:

(A) Meet with me privately during office hours or a scheduled appointment as early in the semester as possible to discuss implementing your accommodations. I am here to help you, and I want to make sure we discuss how best to integrate your OARS approved accommodations in a way that helps make you successful. Your accommodations will be implemented only after we meet to discuss the best path for your success.

(B) Give me reasonable notice (at least three business days) to implement your accommodations.

(C) If you have testing accommodations and we determine together that it would be best for you to take exams in the OARS testing center, you must arrange through OARS with sufficient notice (3 business days for exams/quizzes and 6 business days for midterms and final). If you do not arrange your exam with OARS, I will not be able to provide extended time, assistive technology, or a distraction free environment, but you will be able to take the exam with the class.

(D) If you experience any access barriers in this course that are part of your OARS accommodations, such as with printed content, graphics, online materials, or any communication barriers; reach out to me or OARS right away.

COURSE-SPECIFIC POLICIES

COURSE DIRECTION

Escape-ish Room

All students will work in groups and develop a simple and small-scoped game. For students new to programming in UE, an “escape” styled game is often very approachable. However, students in this course are not mandated to design an “escape” room game. Each group must, however, pitch a design that is scoped small enough that it can be completed this semester.

Each student is required to design and develop their own interactive “mission” (Tools 2 assignment). This mission could be something like escaping a locked room, but could be anything the students come up with. Typically this assignment is modeled off of the concept of a button making a door open, but can be as complicated as the student can think of. We will see examples in class.

One room / puzzle/ mission Per Student

Last year students decided to combine puzzles and all of their coding got mixed up with each other and it became a disaster. Do not combine your puzzle components with other students' puzzles/missions.

Timeline

We will finish the escape room game at the END of the semester. Each assignment will bring us one step closer to the finished product. One year one group thought they had to have a finished game by the end of the FIRST assignment and they were all very tired and very angry.

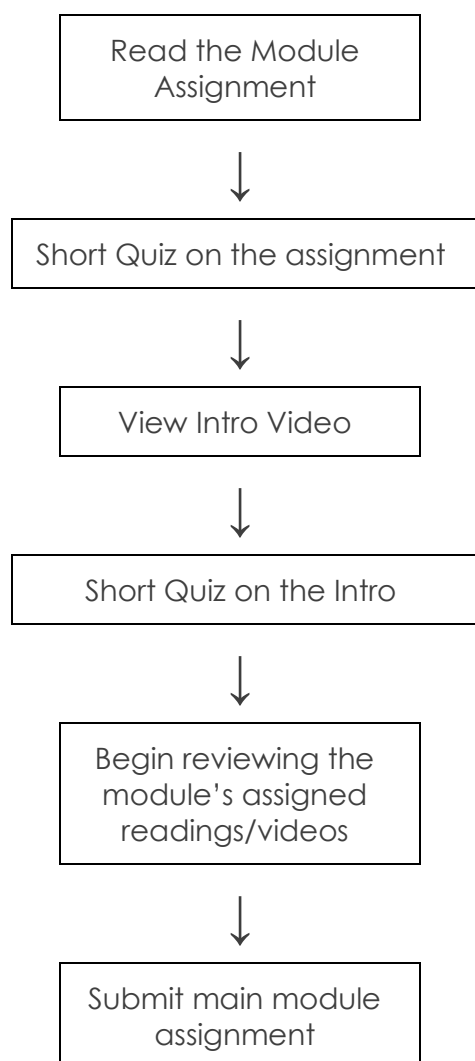
For instance, we will not even begin programming the puzzle / interactive component of the games until the third tools assignment.

BLACKBOARD **BLACKBOARD** **BLACKBOARD** **BLACKBOARD** **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:

Typical Blackboard Structure: This course follows a typical structure on blackboard that is centered around modules that culminate in very specific deliverables (major projects). For each module there will be a series of readings, videos, and quizzes that must be followed in order, as shown in the diagram below (may vary by course):

MODULE



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 assignments will be assessed.

For every assignment, you MUST submit something through Blackboard. 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.

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!

Syllabus: This syllabus will also be hosted on Blackboard.

Blackboard is Master: 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.

PROBLEMS WITH BLACKBOARD: PLEASE CONTACT **IT IMMEDIATELY** IF YOU DO NOT HAVE ACCESS TO OUR CLASS BLACKBOARD PAGE. I CANNOT HELP YOU, ONLY IT CAN HELP YOU. IT IS YOUR RESPONSIBILITY TO REMEDY THE PROBLEM ASAP SO YOU CAN PARTICIPATE IN THE COURSE.

ABSENCES AND TARDIES

After two unexcused absences you will receive a Starfish notice (because we care). After a SIXTH ABSENSE you will be dropped from the course. Exceptions will only be granted for university-sanctioned events (with prior notice) or hospitalization (with a doctor's note). Tardies are also unacceptable. Be on time. Better yet, be early. Three tardies will equal an absence. Students will not be permitted to make up grades for work missed due to an unexcused absence or tardy.

COPYRIGHT, 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.

EXAM BLOCK

At High Point University, every course is expected to use its designated exam block. While I try to clearly mark the exam block date and time on this syllabus and on Blackboard, please note that if it is incorrect for any reason, it is expected that ALL STUDENTS verify the correct date and time using the Registrar's website.

In this course, we will use the exam block for a mandatory SCRUM Fundamentals certification exam. The exam is administered by Certiprof and has a 1-hour time limit that cannot be altered. However, all students attending and taking the certification test will receive full credit for this assignment.

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.

HEAGNEY ETIQUETTE

Email

I will return all emails within 24 hours. If you don't hear back from me, it is because I made a mistake so feel free to follow-up with me if I don't respond.

I purposefully do not have my work email on my phone so feel free to email any time of day and please do not apologize for sending emails.

When crafting an email to me, don't feel the need to include flowery or overly sophisticated language. Just tell me what's going on and how I can help you. Also, please include which class you're emailing about. I have many of you in multiple classes and I'll need that context to quickly help.

Clearly state the problem you have and how I can help. Use screenshots (PASTE INTO THE BODY DO NOT "ATTACH"). Too often in the past, students would just email that they were having problems, and I could not help them in my reply.

When crafting your email, if it's a question for class, please don't stress too much about typos. I'm here to be your advocate for learning the material and I'd rather you spend your time on the material, and not worrying about my judging typos (that we all make).

If you're emailing me for a recommendation then of course you'd want to spend time crafting it properly, but for general day-to-day class emails that sort of worry isn't necessary.

Example email:

Hey Heagney,

I have a question about the 3D Modeling course.

I'm confused about one of the "missions" of the second assignment (Title of assignment) because my project may not be able to use that particular feature. My project is a _____ but the mission to _____ seems to not be compatible.

Can you help me figure out a way that I can continue with my project but still get credit for that constraint?

Thanks!

-Student

Texting

I offer my cell number in case there's an emergency but please don't abuse it. This is for moments when you might need a quick response from me right away and waiting 24 hours might be moot. For instance, maybe I'm up and able to answer a question about programming a game engine or 3D modeling. I'm always fine with a quick text if I can help.

Always include your name and class because I might have not stored your name in my phone. Even if I've texted with you before, I might have been lazy and not stored your name, or I have a good friend with that name and I don't want to make a mistake by thinking you're my friend.

My cell: 336-456-2672

Addressing Me

You may address me in any of the following ways, in order of my own preference:

1. Heagney
2. Professor Heagney
3. Mr. Heagney

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 / Module	To Do	Estimated Hours
1	Tuesday	8/22	Agile		Readings / Videos: 3 hrs Tools 1: 5 hrs
	Thursday	8/24			
2	Tuesday	8/29			Readings / Videos: 3 hrs Tools 1: 5 hrs
	Thursday	8/31		MAJOR: Agile Due	
3	Tuesday	9/5	Blender		Readings / Videos: 3 hrs Tools 2: 5 hrs
	Thursday	9/7			
4	Tuesday	9/12			Readings / Videos: 3 hrs Tools 2: 5 hrs
	Thursday	9/14			
5	Tuesday	9/19			Readings / Videos: 3 hrs Tools 2: 5 hrs
	Thursday	9/21		MAJOR: Blender Due	
6	Tuesday	9/26	Puzzle		Readings / Videos: 3 hrs Tools 3: 5 hrs
	Thursday	9/28			
7	Tuesday	10/3			Readings / Videos: 3 hrs Tools 3: 5 hrs
	Thursday	10/5			
break	Tuesday	10/10			
	Thursday	10/12			
8	Tuesday	10/17	Puzzle		Readings / Videos: 2 hrs Tools 3: 6 hrs
	Thursday	10/19			

9	Tuesday	10/24			Readings / Videos: 1 hrs Tools 3: 7 hrs
	Thursday	10/26		MAJOR: Puzzle Due	
10	Tuesday	10/31	UMG / VFX	Discuss Portfolio / Prep for UMG VFX	Readings / Videos: 3 hrs Portfolio: 3 hrs Tools 4: 2 hrs
	Thursday	11/2			
11	Tuesday	11/7			Readings / Videos: 2 hrs Portfolio: 1 hrs Tools 4: 5 hrs
	Thursday	11/9			
12	Tuesday	11/14			Portfolio: 2 hrs Tools 4: 6 hrs
	Thursday	11/16		MAJOR: UMG Due	
13	Tuesday	11/21		Discuss Portfolio / Prep for Audio	Readings / Videos: 2 hrs Portfolio: 2 hrs Tools 5: 4 hrs
	Thursday	11/23/2023 NO CLASS THANKSGIVING			
14	Tuesday	11/28			Readings / Videos: 2 hrs Portfolio: 2 hrs Tools 5: 4 hrs
	Thursday	11/30			
15	Tuesday	12/5			Portfolio: 2 hrs Tools 5: 6 hrs
	Thursday	12/7		MAJOR: Audio Due	
Exam Block	Tuesday	12/12/2023 9:30-11 AM		SCRUM TEST Portfolio 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.