Syllabus

GAM 1111-01

AAA Game Development Tools

Spring 2023

MWF 2:00 Pm – 3:10 Pm

Classroom: NQSC 125 (Esports Arena)

Instructor: Brian Heagney

Office: NQSC 341

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

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| Professor Heagney’s Office Hours | | | | |
| Monday | Tuesday | Wednesday | Thursday | Friday |
| 12:30 – 2:00 PM | 12:30 – 1:30 PM | 12:30 – 2:00 PM | 12:30 – 1:30 PM |  |

Course Description

Introduction to the digital technologies employed by the AAA game design and development companies to design, edit, store, and deliver content and assets to coworkers and end-users. This course provides an introduction to graphic and audio software packages, and AAA game engines. Students begin a digital portfolio. Four credits

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

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| Student Learning Outcomes: | **By the end of the course, students should be able to:** | **Method for Assessing this Learning Outcome** |
| understand the elements involved in planning, designing, and producing digital media  *(Learning all the software like UE5 and the Adobe stuff)* | Production Projects, LinkedIn Portfolio |
| understand the syntax & application of game asset production  *(Learning the technical game making stuff)* | Production Projects, LinkedIn Portfolio |
| demonstrate competence with professional AAA game development tools used in the games industry by developing professional game-ready audio and visual assets.  *(git gud at game makin’)* | Production Projects |
| develop game-ready assets with Adobe Audition, Adobe Photoshop, and vector editing software, and integrate game assets into AAA game development software  *(git gud at makin’ stuff fer games)* | Production Projects |
| Work well in groups with the ability to communicate efficiently while working on separate aspects of a video game.  *(Collaborate on game without breaking game)* | Production Projects |

Textbooks and Required Course Materials

* **NO TEXTBOOK**—While there will be assigned readings and videos for this course, all materials are available online through blackboard.
* A **USB flash drive 16GB** (or higher).  Every student’s storage space will differ. Some students have used 10 GB, some students have used much more. If you are saving your builds for your game on a weekly basis, you may need a lot of storage space. Bring your data/game/assets to every class to work on and show me.
* **Software/Computer Labs** – There will be some use of digital software for this class, all of which are installed on the computers in NQSC 125 (The Esports Arena). 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 either of the two classrooms when there is not another class (or Esports practice) going on.  
    
  Do NOT leave your school projects on the computers. The data will likely be erased, or inaccessible at some point. Use our class repository (push often) and/or jump drives.

Assignments and grading

* **Module 1: Greyboxing Collaboration (Github + UE5) (10% of grade) –** Students will be introduced to Github Desktop (and Github), along with Unreal Engine 5. Students will form groups and use greyboxing techniques to design and layout an environment for an “escape room” styled video game.
* **Module 2: 3D Modeling (Blender + Substance Painter) (15% of grade)** – Students will learn the very basics of 3D modeling, unwrapping, and PBR Material creation using Substance Painter. Students will then learn how to import 3D models into Unreal Engine.
* **Module 3: Gameplay Programming a Simple Puzzle (Blueprints) (20% of grade) –** NOTE: Every student will design their own self-contained simple puzzle.  
    
  Students will learn basic gameplay programming using Unreal Engine’s Blueprints. Students will BEGIN by making a button open a door. Students will then use this structure to develop a slightly more advanced puzzle, such as a door opening up when you pick up a teddy bear or rotate a book (please don’t do that).
* **Module 4: User-Interface Design (Illustrator + Widgets) (15% of grade) –** Students will learn to use Adobe Illustrator to create imagery to include as HUD elements for their simple puzzle. Students will also learn the basic use of widgets in UE5.
* **Module 5: Sound Design (Adobe Audition) (10% of grade)** – Students will learn to use Adobe Audition to edit captured audio to use as ambient sounds in their part of the map.
* **LinkedIn (5% of grade) -** All students are required to have an updated (current) LinkedIn profile that is strategically designed to showcase themselves for potential employment in the field of their choice.
* **Game Design Portfolio (5% of grade) –** In this course, students will begin a Game Design portfolio on a website of the student’s choice (such as wix.com). Student’s design portfolio needs to feature games from their time at college or university but does not need to feature a game from this course.
* **Participation (10% of grade) –** In this course, we will have in-class activities and other small assignments that will count toward participation. These activities will be based on the technology related to the module we are studying, but will not necessarily be part of the assignment.
* **Quizzes (10% of grade) –** In this course, there will be quizzes based on readings and videos. These quizzes will be online and accessible from Blackboard.

Expectations for out-of-class work

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| 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. |

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.

* LinkedIn – approx. 8 hrs out of class
* Portfolio – approx. 8 hrs out of class
* One Good Room – approx. 17 hrs out of class
* Photoshop Shader – approx. 10 hrs out of class
* Inkscape UI – approx. 14 hrs out of class
* Audition – approx. 14 hrs out of class
* Premiere – approx. 8 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

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

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| 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) | 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.

Digital Portfolio

All students in the school of Communication are required 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 addition to the LinkedIn profile, all students enrolled in this class are required to maintain a game design portfolio on a website such as Wix.com. While you will be developing a portfolio piece in this course, realize that you do NOT need to wait until the game is finished before adding it to your portfolio.

Writing styles

Professional work 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 academic papers 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.

Absences and tardies

After two unexcused absences you will receive a Probation Notice. After a fifth absence 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. Two 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.

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 & Interactive Media 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 Provost, 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 Nido R. Qubein School of Communication’s Game & Interactive Media Design department.

3. Talk with Dr. McDermott, who serves as the Dean of the Nido R. Qubein School of Communication.

4. Talk with Dr. Carroll, who serves as the Provost of High Point University.

The decision of the provost is final.

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:

**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. 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.

**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.

Hollywood

In addition to uploading major assignment submissions through blackboard, you will be expected to transfer all of your working files to the School of Communication “Hollywood” server. Instructions for transferring to Hollywood server will be found on Blackboard.

While Blackboard will be used for uploading a final compressed version of a project, Hollywood will be used to show me your ENTIRE project folder. You will transfer a major project folder which will include any number of subfolders containing all of the appropriate files (images, audio clips, video clips, etc.).

You WILL NOT use the Hollywood server in place of a jump drive: your folder in the Hollywood server will remain organized with only the appropriate folders and subfolders corresponding to our major assignments.

Additionally, you WILL NOT work directly from the Hollywood server. If you absolutely need to work on a file that is in your Hollywood folder, you MUST transfer all appropriate files to your hard drive and work on them from there. Every time a student has worked directly from the Hollywood server, problems have arisen and it is easier to just work directly from the hard drive of the computer you are working on.

Exam Block

In 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 to present, play, and discuss our final projects.

Tentative schedule

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

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| Week | Day | Date | Topic | To Do | Estimated Hours |
| 1 | Monday | 1/10 | **One Good Room** |  | Readings / Videos: 6 hrs One-Sheets: 2 hrs |
| Wednesday | 1/12 |  |
| Friday | 1/14 | One Sheet 01: Room and Door idea submission due |
| 2 | Monday 1/17: NO CLASS MLK DAY OF SERVICE | |  | Readings: 4 hrs One Good Room: 4 hrs |
| Wednesday | 1/19 |  |
| Friday | 1/21 |  |
| 3 | Monday | 1/24 | One Sheet 02: (No one-sheet; just have greyboxed room, with rough drafts of working button and working door) | Readings: 3 hrs One Good Room: 5 hrs |
| Wednesday | 1/26 | One Sheet 03: TBA |
| Friday | 1/28 |  |
| 4 | Monday | 1/31 |  | One Good Room: 8 hrs |
| Wednesday | 2/2 |  |
| Friday | 2/4 | One Good Room Due |
| 5 | Monday | 2/7 | LinkedIn / Portfolio |  | LinkedIn / Portfolio: 8 hrs |
| Wednesday | 2/9 |  |
| Friday | 2/11 |  |
| 6 | Monday | 2/14 | **Shader (Photshop)** |  | Readings: 4 hrs One-Sheets: 2 hrs Shader Project: 2 hrs |
| Wednesday | 2/16 | One Sheet 04: Shaders |
| Friday | 2/18 |  |
| 7 | Monday | 2/21 |  | Shader Project: 8 hrs |
| Wednesday | 2/23 |  |
| Friday | 2/25 | Shader Due |
| BREAK | Monday | 2/28 | Break (no class) | | |
| Wednesday | 3/2 |
| Friday | 3/4 |
| 8 | Monday | 3/7 | **UI (Inkscape)** |  | Readings: 4 hrs One-Sheets: 2 hrs UI Project: 2 hrs |
| Wednesday | 3/9 |  |
| Friday | 3/11 | One Sheet 05: UI Design |
| 9 | Monday | 3/14 |  | Readings: 4 hrs UI Project: 4 hrs |
| Wednesday | 3/16 |  |
| Friday | 3/18 |  |
| 10 | Monday | 3/21 |  | UI Project: 8 hrs |
| Wednesday | 3/23 |  |
| Friday | 3/25 | UI Assignment Due |
| 11 | Monday | 3/28 | **Audition** |  | Readings: 4 hrs One-Sheets: 2 hrs Audio Project: 2 hrs |
| Wednesday | 3/30 | One-Sheet 06: Audio due |
| Friday | 4/1 |  |
| 12 | Monday | 4/4 |  | Readings: 4 hrs Audio Project: 4 hrs |
| Wednesday | 4/6 |  |
| Friday | 4/8 |  |
| 13 | Monday | 4/11 |  | Audio Project: 8 hrs |
| Wednesday | 4/13 | Audio Assignment Due |
| Good Friday 4/15: No Class | |  |  |
| 14 | Easter Monday: 4/18: No Class | |  |  | Readings: 4 hrs Premiere Video: 4 hrs |
| Wednesday | 4/20 | **Premiere** |  |
| Friday | 4/22 |  |
| 15 | Monday | 4/25 |  | Readings: 4 hrs Premiere Video: 4 hrs |
| Wednesday | 4/27 |  |
| Exam Block | Thursday May 5  8-11AM | | **Exam Block** | Final Project Due 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](https://mobile.highpoint.edu/owa/redir.aspx?C=JyyBBLgH4fYmI71qL7W8GyxmheTK83O7pgF3_zLiu7DsPhTIQFTVCA..&URL=http%3a%2f%2fwww.highpoint.edu%2fcommunication%2ffiles%2fnqsc_syllabus_policies.pdf)) unless alternate standards are specifically outlined elsewhere in this syllabus.