

**SYLLABUS  
GAM 4432-01  
3D MODELING FOR VIDEO GAMES**

Spring 2024  
T/Th 11:40 Pm – 1:20 Pm  
Classroom: NQSC 125  
Instructor: Brian Heagney  
Office: NQSC 341  
Cell phone: 336-456-2672  
Email: bheagney@highpoint.edu  
LinkedIn: [www.linkedin.com/in/brianheagney/](http://www.linkedin.com/in/brianheagney/)

Professor Heagney's Office Hours				
Monday	Tuesday	Wednesday	Thursday	Friday
12 - 2 PM		12 - 2 PM		10 – 11 AM

## **COURSE DESCRIPTION**

This course introduces principles and practices involved in creating compelling 3D models for video game production. Students will create low-poly and high-poly models, and gain understanding of the processes of uv-unwrapping, material creation, and baking normal maps. Upon completion of this course, students will be able to create game-ready 3D assets and character models for video games. *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

Student Learning Outcomes:	By the end of the course, students should be able to:	Method for Assessing this Learning Outcome
	Understand and use vocabulary relevant to the professional world of 3D modeling for video games	Quizzes
	Understand techniques related to 3D modeling for games including but not limited to UV Unwrapping, creating and applying materials, and creating and applying normal maps.	All major 3D assignments
	Create low- and high-polygon-count 3D assets for use in 3D game engines and simulation software.	Weapon
	Creatively use 3D modeling software to develop a digital mesh of an existing object.	Weekly Modeling Assignments; In-Class Participation; Asset Pack

## 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). 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 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.
- **Blender (Optional)** – Blender is a free 3D modeling software. If the student wishes to use the 3D modeling software on their own computer, they must download the same version that is installed in the GAM computer lab (NQSC 125C).

## **ASSIGNMENTS AND GRADING**

- **Asset pack (20% of grade)** – Students will use basic 3D modeling tools and techniques to model a small asset pack consisting of at least 4 assets, centered around a common theme (such as construction site, medieval, etc)
- **Weapon (20% of grade)** – Students will use advanced modeling skills (including but not limited to Boolean tools) to plan and model a high-poly weapon asset, and learning the fundamentals of baking high-poly to low-poly.
- **Character (20% of grade)** – Students will learn basic organic modeling techniques to create a 3D character model.
- **Weekly Modeling Assignments (20% of grade)** – There will be weekly modeling assignments that students are required to do outside of class to prepare for in-class instruction.
- **Portfolio page (5% of grade)** – Students will create a portfolio page showcasing one of their models, being sure to display wire-frames, UVs, textures, as well as (but not limited to) a final rendering.
- **Participation (10% of grade)** – Students are expected to follow along in class. Sometimes, there will be a blackboard in-class participation activity to upload that day's activity for participation points.
- **Quizzes (5 % of grade)** – There will be short quizzes throughout the semester, focusing on techniques, concepts, and vocabulary related to 3D modeling.

## 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. 30 hrs. out of class
- Weekly Modeling Assignments – approx. 30 hrs. out of class
- Asset Pack – approx. 16 hrs. out of class
- Weapon - approx. 16 hrs. out of class
- Character – approx. 16 hrs. out of class
- Portfolio Page – 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

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)	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. 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!"

See "Typical Heagney Policies" at the end of this document.

### **Feedback**

All students will receive feedback through blackboard rubrics.

### **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

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

However, I have a new late policy that is more lenient yet harsher than I've been previously. See "Typical Heagney Policies" at the end of this document.

### 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.

## **COMMUNICATION**

### Email

Most of our out-of-class communication will be through email. Email is appropriate for any questions about assignments or grading. While I do give feedback for assignments through blackboard rubrics, if you're still confused or if you think I'm confused, please reach out through email.

Do NOT email me your assignments. Assignments should only be submitted through the blackboard interface.

My goal is to respond to emails within 24 hours during the weekdays. My other goal is to not work at all on the weekends, so I do not promise that I will respond at all during the weekends. Feel free to email me at any time of the day or night. I purposefully keep my work email OFF of my phone, so I will never be bothered by an email in the middle of the night.

Be informal. If you're writing me an email, just write what you need to write without beating around the bush. 😊

### **Text**

I always include my cell number in case you ever have a question that needs to be answered right away. I don't promise that I'll be awake or respond, but feel free to text me any time of the day for rare emergencies. My phone sound is off and it won't wake anyone up if I'm asleep. Seriously, if I'm awake up in my office for some reason, and you're experiencing a disaster in the computer lab, it will help if you text me!

### **Blackboard**

As mentioned throughout this syllabus, all assignments must be submitted through the blackboard interface. Sometimes that means submitting a project file. Sometimes it means submitting a zip folder. Sometimes it means submitting a link to a SHAREABLE google drive.

### **DIVERSITY**

This course relies on students considering the diverse nature of players as they design for differing skills and abilities. This course also encouraging 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.

## **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.

## **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.

## 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	1/9			Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	1/11			
2	Tuesday	1/16		Weekly Modeling Assignment Due	Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	1/18			
3	Tuesday	1/23		Weekly Modeling Assignment Due	Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	1/25			
4	Tuesday	1/30		Weekly Modeling Assignment Due	Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	2/1			
5	Tuesday	2/6		Weekly Modeling Assignment Due	Asset Pack: 3 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	2/8			
6	Tuesday	2/13		Asset Pack Due	Weapon: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	2/15			
7	Tuesday	2/20		Weekly Modeling Assignment Due	Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	2/22			
break	Tuesday	2/27			
	Thursday	2/29			
8	Tuesday	3/5			Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	3/7			

<b>9</b>	Tuesday	3/12		Weekly Modeling Assignment Due	Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	3/14			
<b>10</b>	Tuesday	3/19		Weekly Modeling Assignment Due	Asset Pack: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	3/21			
<b>11</b>	Tuesday	3/26	HONORS DAY NO CLASS	Weapon Due	Character: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	3/28			
<b>12</b>	Tuesday	4/2		Weekly Modeling Assignment Due	Character: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	4/4			
<b>13</b>	Tuesday	4/9		Weekly Modeling Assignment Due	Character: 5 hrs Weekly Modeling Assignment: 3 hrs
	Thursday	4/11			
<b>14</b>	Tuesday	4/16		Weekly Modeling Assignment Due	Character: 5 hrs Portfolio Page 3 hrs
	Thursday	4/18			
<b>15</b>	Tuesday	4/23			Character: 5 hrs Portfolio Page 3 hrs
	Thursday	4/25			
<b>Final Exam Block</b>				Character Due	
	Wednesday	5/1/24	3:30 - 6:30 PM	In-Class Activity for participation points	

## 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](http://www.highpoint.edu/communication/files/nqsc_syllabus_policies.pdf)) unless alternate standards are specifically outlined elsewhere in this syllabus.

### HEAGNEY POLICIES

Students are also expected to read, understand, and abide by the following policies:

<https://docs.google.com/document/d/142Bg51BWzqot571f3BnPudUjcxNvrq2YJWRcw0I-IQ/edit?usp=sharing>