



Albertus Magnus College Course Syllabus

Course Code and Title: AR 218 Introduction to Digital Game Development - A

Course Description: This studio course will introduce students to the primary concepts of game-making in a digital age, examining games as an emergent art form. Students will replicate historic games using contemporary digital tools and produce both physical and digital game elements. Students will study the development and impact of games as interactive art. General Education Choice for Part A. Offered yearly. 3 credits.

PROGRAM AND COURSE OFFERING INFORMATION

Program:	ADP
Session (Mod or Semester):	Mod 1 2022
Class Meetings (Days of Week & Times):	M W F
Delivery method (On-ground, Blended or Online):	Online – Asynchronous meetings
Number of Credits:	3 Credits
Textbook and Supplementary Readings:	

Works of Game by John Sharp. ISBN: 9780262029070

Required materials:

Windows or OSX (Apple) personal computer with 100GB of available storage
3-Button Mouse (Left, Right, and Mousewheel)
Notebook & Pen

Additional required readings and software will be provided through eLearning.

INSTRUCTOR INFORMATION

Name:	Jeffrey L. Gangwisch
College eMail:	jgangwisch@albertus.edu
Contact (phone):	(203) 672-5322

Office Location: Aquinas Hall 203

Hours: Appointments available through Navigate link on e-learning
I can meet online or in person anywhere on campus by appointment.

Instructor Biography: Jeffrey L Gangwisch is an interdisciplinary artist based in New Haven, CT. With a professional background in film and video production, their most recent work experiments with 3D scanning/printing, augmented & virtual realities, and networked cinematics. Jeffrey has earned their BA from the University of New Orleans, their MA in Television Production from Falmouth University, and their MFA in Intermedia and Digital Art from UMBC in Baltimore, MD.

COURSE POLICIES

Tradition of Honor: As a member of the Albertus Magnus College Community, each student taking this course agrees to uphold the principles of honor set forth by this community, to defend these principles against abuse or misuse, and to abide by the regulations of the College. To this end, every student must write and sign the following statement at the end of each examination: ***"I declare the Honor Pledge."***

Intellectual Honesty: Plagiarism is a serious offense against academic integrity and intellectual honesty. In completing written assignments, the student must work independently unless the class instructor indicates otherwise. It is important for students to understand that they must reference the sources for all direct quotes, for the rephrasing of information from an outside source, and for ideas borrowed from readings. Students will be required to use APA format when referencing sources. Failure to cite appropriate references in any of these instances results in an act of plagiarism, intentional or unintentional. If it has been determined that a student plagiarized a written assignment, the student may be dismissed from the program. The instructor will report instances of plagiarism to the college administration.

Writing Guidelines: The writing guidelines for this course will follow the Modern Language Association's (MLA) style format standards. Work cited pages must be correctly formatted and alphabetized; sources must be appropriate to the assignment, correctly cited, and traceable; and the number of citations and sources must be adequate for each paper. Citing your sources properly requires following the MLA style format rules. Please use the documentation guidelines found in your MLA citation manual or through the online Purdue Online Writing Lab (OWL).

Appropriate Classroom Conduct: Students are expected to show a respect for order, the rights of others, and to exemplify a sense of honor and integrity in the classroom. Student conduct is considered an integral part of the educational process. Therefore, no student should be denied the right to learn as a direct result of disruptions in the classroom. Active learning, open inquiry, and the free expression of informed opinion are the foundations of a liberal education at Albertus Magnus College. However, student behavior that interferes with an instructor's ability to conduct the class is prohibited. Students are expected to be considerate and respectful of the rights, views, and interests of other students and faculty. The faculty member will take appropriate action if students do not abide by these rules.

Accommodations for Special Needs: Please advise the instructor of any special problems or needs at the beginning of the semester. Those students seeking reasonable accommodations based on disabilities should contact the Director of Academic and Student Disability Services, Aquinas Hall, Room 114 at (203) 672-1050, or email asejdic@albertus.edu, to obtain a Faculty Accommodation Letter. Albertus Magnus College

complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act.

In order to respect the independence, rights and dignity of students with disabilities, the College initiates services only after a student makes a voluntary disclosure of a disability to the Office of Academic and Student Disability Services. Students who are approved for accommodations are responsible for approaching instructors in a timely manner to provide faculty accommodation letters and to arrange how accommodations will be implemented. Accommodations cannot be retroactive, so we strongly advise students to make accommodation appointments as soon as possible.

In providing reasonable accommodations, the College shall not fundamentally alter the nature of programs, services, or activities; require waiver of essential academic standards or violate accreditation requirements.

Library and Information Services Component: Library and Information Services Component: The library website is <https://albertus.libguides.com/home/>. Students should use this library website as their first source of supplementary information, such as articles or essays relevant to their research paper.

Information Help Desk Services supports students, faculty, and staff in accessing and using Albertus information technology resources.

Instructional Technology Services provides training and support for students and faculty in the use of technology in classroom and online environments, including eLearning, ePortfolio, Google Apps for Education, the Microsoft Office suite, and related resources.

Library and Information Technology Services (ITS) offices are located in the Rosary Hall Learning Commons.

Contact Information help Desk:
203-773-0205
its-help@albertus.edu

Contact Library Services:
203-773-8511
refdesk@albertus.edu

For more information: <https://www.albertus.edu/student-resources/its/>

Blended and Online Course Etiquette: This course involves use of the Albertus eLearning system online. It is important to maintain appropriate professional interactions with your classmates and Instructor in the online environment. Please click the following link to review the Albertus policies regarding proper etiquette for interaction in all blended and online course work: [Link to Albertus' Netiquette Guide](#)

When communicating online:

- Use full sentences and appropriate punctuation, spelling and grammar.
- Avoid typing in all capital letters.
- Set a respectful tone.
- Include greetings and signatures in email communications.

Withdrawing from a Course: It is the responsibility of the student to officially drop or withdraw from a course. However, failure to attend a course for 14 calendar days may result in an administrative withdrawal from the course. The policies on course withdrawals and administrative withdrawals may be found online at <http://www.albertus.edu/policy-reports/academic-policies-regulations-eug#apgr>

Albertus Magnus College Definition of a Credit Hour: Albertus Magnus College adheres to the definition of a credit hour in compliance with and as defined by [NECHE commission policy](#).
NECHE's definition of a credit hour is as follows:

The Commission defines a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutional established equivalence that reasonably approximates not less than –

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

General Education Note - A: Albertus Magnus College provides a liberal arts education that promotes the pursuit of truth in all its dimensions and is practical in its application. Rooted in the concept of the “arts that liberate,” the Albertus General Education Program asks students to explore human beings’ relation to the world and affords a context in which they may determine how they will make meaningful contributions in public life and in their careers.

The General Education Program consists of required courses and designated electives. This combination is intended to assure that students meet core objectives while at the same time pursuing their individual interests in various fields. General education elective courses are designated as “A,” “B,” “C” or “I.”

This course is designated as "A." “A” courses are basic required courses in the fine arts, mathematics, and science. Because “A” courses support the development of fundamental skills that are used in more advanced courses, students are encouraged to take “A” courses in their first year of study.

Because this is an Arts "A" course, our primary goal is to foster creative thinking that may be applied elsewhere in your academic and professional career.

Please note you will be required to upload and display both your 2D and your 3D project on your Handshake e-portfolio as a general education requirement.

Content Warning: This course may cover subjects or images that disturb you. Art is always political. Art is always provocative. Art that may seem safe from one perspective may radically antagonize another. The discussion that comes from such a difference of opinion and perspective is inherently and absolutely valuable.

I will do my best to warn of any content that I share that troubles me. If you are aware of any subjects/topics/images that you wish to be warned about, I will make an effort to accommodate. However, I cannot guarantee your comfort.

If you are troubled by any materials please feel welcome to leave the classroom at any time without notice- you will not be questioned. Please do so quietly and without disruption. Please make an effort to see me and discuss the offending issue outside of class.

If you are troubled but able to stay and discuss, please share your perspective with the class! As long as we may limit our emotions and engage respectfully with those whose opinions differ from our own, these discussions are among the most valuable activities we can engage in as a class.

As for the content you will create, I encourage you to experiment and push yourselves both conceptually and materially. The only content I will not accept is that which is intended to harm, denigrate or defame a specific person or persons* in its construction or content. All other material will be enthusiastically received and considered.

*This includes non-human persons / animals

Communications Policy: I will do my best to respond promptly to all communications. I check and respond to phone calls and emails 9am-5pm Monday-Friday. I may not respond to you after 5pm or on Saturday & Sunday. If you have not received a response from me within 48 hours (excluding weekends), please contact me again- I may simply have missed your message.

COURSE GRADING AND ATTENDANCE POLICIES

Attendance Policy: Albertus Magnus College is required to verify the enrollment and participation of students who participate in Federal Title IV student aid programs and/or receive educational benefits through alternate funding sources.

On-line Attendance Policy: Your attendance will be marked twice a week at the class meeting times listed at the top of this document. Attendance will be based on your completion of assigned work. If you fail to complete the work by the assigned deadline and fail to communicate with me about it, you will be marked absent.

Class Cancellations: When classes are cancelled due to inclement weather or another emergency, the instructor will make arrangements to cover the material missed during this class session. This may be done through email, an assignment submitted through eLearning, or with an additional on-ground session. It will be up to the instructor's discretion to determine how this will be handled. Your instructor's policy:

In addition, please sign up for the emergency alert system. This system will notify you in case classes are cancelled due to an emergency.

Sign up here=> [Link to emergency alert system](#)

Rationale for use of Online Format: As part of the Accelerated Degree Programs, this course hopes to accommodate for the highest degree of student flexibility by allowing students to engage with that material asynchronously. This course allows for individuals to complete self-guided tutorials at their own pace while providing ample opportunity for individual support during scheduled office hours.

Grading Policy and Methods of Assessment:

Category or Assignments:	Points Possible
Exercises	100
Research Presentation	50
Readings/Discussions	100
Project 1 - Paper Prototype	50

Project 2 - 2D Game Project	100
Project 3 - 3D Game Project	100
3x Critiques	100
Lecture Participation	100

Critiques: There will be three critiques, one for each of the three major projects, where students will provide feedback on the projects of their peers.

Exercises: There will be a number of minor quizzes, exercises or forum discussions posted to e-learning, designed to support the skills required of the three major projects. These will be averaged together into a single grade. These small exercises will most often contribute to the larger projects, and will be used to verify attendance.

Lecture Participation: Lectures will be require engagement through annotation and discussion. Participation in this way will be recorded and evaluated into a single average grade.

Research Presentation : Research and present (5-10min) the work of an artist that works with virtual reality in a museum or gallery context.

Reading/Discussions: There will be a number assigned and graded forum discussions related to the required readings. These will be posted to eLearning and collectively averaged.

Project 1 - Paper Game: In small groups students will design a paper prototype of a game.

Project 2 - Personal Platformer: Students will create a two-dimensional platform game using image assets from their personal lives. Students will create a player object to navigate this world. Students will animate features of this world and create interactions with the player object.

Project 3 - 3D Scene: Students will create a scene intended for a VR headset using 3D primitives, scanned objects, and downloadable models. There will be a strong emphasis on manipulating scale, color, texture, and light to create expressive environments.

Grade Equivalencies:

Letter grades are based on suggested numerical equivalents as follows:

Letter Grade	Percentage
A	94–100
A–	90–93
B+	87–89
B	84–86
B–	80–83
C+	77–79
C	74–76
C–	70–73
D+	67–69
D	60–66
F (Failure)	00–59

COURSE OBJECTIVES AND LEARNING OUTCOMES

Rationale: The mission of Albertus Magnus College is to provide an education that promotes the pursuit of truth in all of its dimensions and is practical in its application. This course serves that mission in its focus on independent creative ability, objective reasoning and imaginative thinking. By the end of this course students will have created new virtual worlds, applying logic, math, and artistic principles.

Course Objectives:

By the completion of this course, each student will be able to:

- Make art.
- To use critical thinking, self-guided problem solving, and judicious research to make the art they want to make.
- To create conceptual game experiences with artistic or social relevance.
- Understand, analyze and critique the importance of game experiences and relevance to cultural issues.
- Communicate respectful critique of their own artistic production, that of their classmates, and that of contemporary interactive artworks.
- Listen to and act on criticism from others to achieve stronger results.

Learning Outcomes:

By completion of this course, each student should know/demonstrate:

- a vocabulary related to computer science and digital distribution.
- a working knowledge of basic game design principles mechanics, rules, components, settings, and interactions.
- a working knowledge of the technical and creative process for contemporary game-making and interactive arts.
- a proficiency with digital file creation and management.
- significant improvement in their application of the elements and principles of art.

WEEKLY SCHEDULE

WEEK ONE

Date(s): August 23

Topic: Introductions / Syllabus / 10 minute Game / Software Installation /

Learning Objective(s):

- Introduce tools and techniques of game making
- Develop game development vocabulary

Reading Assignment:

- Chapter 1, *Works of Game*

In-Class Agenda

- Introduce Game Terminology
- Create our first game

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Complete Discussion 1 (2hrs)
- DUE Submit Project 1 – 10 minutes Game (2hrs)

WEEK TWO

Date(s): August 29

Topic: Playtesting, Critique, Introduction to Programming

Learning Objective(s):

- To evaluate and constructively critique the product of your work and the work of your peers.
- Listen to and implement feedback.
- Understand Programming fundamentals

Reading Assignment:

- Chapter 2, *Works of Game*

In-Class Agenda

- Critique #1
- Programming Fundamentals
- Software Installation and Preparation

Online Activity:

- DUE Watch Lecture Videos (3hrs)
- DUE Complete Discussion 2 (2hrs)
- DUE Submit Critique #1 (1hr)
- DUE Exercise: Push Github Repository (1hr)

WEEK THREE

Date(s): September 5

Topic: Elements & Principles of Art and Design, Asset Creation

Learning Objective(s):

- Develop original game assets
- Apply art principles to game production

Reading Assignment:

- Chapter 3, *Works of Game*

In-Class Agenda

- Asset Production
- Build Project 2 Platformer Game

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Complete Discussion 3 (2hrs)
- DUE Create Animated Sprites (2hr)
- DUE Create Audio Files (2hr)
- DUE Exercise: Push Github Repository (1hr).

WEEK FOUR

Date(s): September 12

Topic: Physics Bodies, Game Interaction

Learning Objective(s):

- Interact with a 2D environment
- Develop expressive 2D environment

Reading Assignment:

- Chapter 4, *Works of Game*

In-Class Agenda

- Program Kinematic Body Player with animated Sprite

- Build level with Static Bodies
- Create Menu Screen
- Create Win condition

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Complete Discussion 4 (2hrs)
- DUE Project 2, pushed to github & Exported to itch.io (3 hours)

WEEK FIVE

Date(s): September 19

Topic: Critique, Presentations

Learning Objective(s):

- Polish and finish first digital game
- To listen to and act on criticism from others to achieve stronger results
- To evaluate and constructively critique the product of your work and the work of your peers
- Present the work of specific contemporary artists and creators to your peers.

Reading Assignment:

- Chapter 5, *Works of Game*

In-Class Agenda

- Critique
- Research Presentations

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Complete Discussion 5 (2hrs)
- DUE Critique 2 (1hr)
- DUE Research Presentations (2hrs)

WEEK SIX

Date(s): September 26

Topic: Introduction to 3D Modelling, Lighting, and Animation basics

Learning Objective(s):

- Understand 3D modelling fundamentals related to game production

In-Class Agenda

- Intro to 3D modelling, lighting, and animation
- Create first 3D scene

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Critique 2 (1hr)
- DUE Push Project to Github with 3D scene(2hrs)

WEEK SEVEN

Date(s): October 3

Topic: Creating Project 3

Learning Objective(s):

- Develop and original and expressive interactive 3D scene

In-Class Agenda

- Create and implement original assets
- Export and share creative production

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Project 3 pushed to github and exported to Itch.IO (4 hours)

WEEK EIGHT

Date(s): October 10

Topic: Critique, Tropes vs Women in Video Games

Reading Assignment:

- 1.5hr video series: Tropes vs Women in Video Games

Learning Objective(s):

- Contextualize contemporary game production
- Explore ethical issues in game development

In-Class Agenda

- Critique #3

Online Activity & Deliverables:

- DUE Watch Lecture Videos (3hrs)
- DUE Discussion, Tropes vs Women in Video Games (2 hrs)
- DUE Critique #3 (1hr)
- DUE Revision and Resubmission of Projects 2 & 3 (2hrs)

***Note:** *Changes in assignments or activities may be made to this syllabus; however, course objectives will remain the same.*