Borough of Manhattan Community College

The City University of New York

Department of Media Arts and Technology

Contents

Introduction to Video Game Design

MMP 270

Asynchronous

Professor Owen Roberts

See Brightspace for contact and office hours

Credits: 3 credits, 2 hours lecture, 2 hour lab

Prerequisites: MMP 100

Course Description

This course introduces game design principles and video game production practices. Game history, theory and design principles will be covered through lecture, discussion and readings. Readings in the form of texts, videos and games will be assigned for written analysis and discussion. The course will review game production historically and current practices for game development including software, environments and production process. Students will learn topics such as

character design, setting and level design, interaction programming, sound design, user testing design and analysis, presenting ideas, giving and interpreting critique and feedback. Production assignments include asset creation of graphics, animation and sound, programming game interactions, creating user testing forms and concept presentations. Students will work individually and/or in groups to develop and complete a video game throughout the semester. Game production environments such as Web/JavaScript, Unity, Unreal Engine, Game Maker, Godot Engine or others could be used. Asset creation will be done with software such as Photoshop, Illustrator, Animate, Piskel, cfxr, Audacity, Audio Tool and others.

Student Learning Outcomes

Description	Measurement
1. Demonstrate the ability to understand an object oriented programming language.	Projects
2. Use visual design skills to create an interactive experience.	Projects
3. Use audio production skills to create assets music and sound effects.	Projects
4. Collaborate with another student on a project.	User testing labs
5. Write a video game narrative break down.	Blog posts
6. Understand basics of game design.	Projects, blog posts

General Education Learning Outcomes

Description	Measurement
Communication Skills: Students will write, read, listen and speak critically and effectively. Student behaviors include being able to: Express ideas clearly in written form; Employ critical reading skills to analyze written material; Exhibit active listening skills; Give an effective oral presentation.	Blog posts, user testing
Quantitative Reasoning: Students will use quantitative skills and the concepts and methods of mathematics to solve problems. Student behaviors include being able to:Use quantitative skills to solve problems; Interpret quantitative information; Translate problem situations into their symbolic representations.	Projects

Description	Measurement
Arts & Humanities: Students will be able to develop knowledge and understanding of the arts and literature through critiques of works of art, music, theatre and literature.	User testing, projects
Information & Technology Literacy: Students will collect, evaluate and interpret information and effectively use information technologies. Student behaviors include being able to: Conduct research using appropriate research strategies; Make effective use of technology.	Projects
Values: Students will be able to make informed choices based on an understanding of personal values, human diversity, multicultural awareness and social responsibility.	Discussion, blog posts

Required Texts

This is an OER/ZTC (Open Educational Resources/Zero Textbook Course) course. Free class materials (including slides, web resources and tutorials) are available at https://openlab.bmcc.cuny.edu/mmp-100-spring-2026/

Textbook

The Art of Computer Game Design by Chris Crawford

https://www.digitpress.com/library/books/book_art_of_computer_game_design.pdf

Use of Technology

Students will not be able to complete all of the projects required for this course without access to a desktop or laptop computer capable of downloading programs and running software. Some projects are not able to completed just using a tablet or phone. If you do not have a personal computer, computers are available at BMCC. If you are not sure, please reach out to the instructor before the course begins to review the technology requirements.

Software used: Software may be updated each semester. Game engines like Godot,

Unity, Unreal, GameMaker and others will be used. Asset production software such as Adobe Photoshop, Animate, Piskel, jfxr, Audacity and others may be used.

All software will be available on the Makerspace lab computers. Find lab hours for the Makerspace here: https://openlab.bmcc.cuny.edu/makerspace/

Some software required for this course are available outside of class in BMCC's computer labs. Visit https://www.bmcc.cuny.edu/students/lrc/lab-services/ for a list of rooms and schedule.

We will use **Brightspace** to submit and grade assignments. Each assignment has a rubric used for grading and deadline in Brightspace. Login to Brightspace here: https://brightspace.cuny.edu/d2l/home

The **Open Lab** is used for posting assignments and course materials.

If you need your login information contact the BMCC Service Desk at 212-220-8379, email userservices@bmcc.cuny.edu or go in person to Room S-141 (199 Chambers Street).

Grading

Grading is based on successful completion of all projects, weekly documentation posts and class participation. Late penalties will be applied to late assignments. Assignments many not be accepted for grading if they are late.

- Participation: 10%
  - User testing and feedback sessions
  - Regular posting on class blog
  - Effort and creativity on projects
- Blog posts: 30%
  - Blog posts are for documentation and feedback purposes, so they need to be submitted in a timely manner to be useful for class purposes
  - Blog posts will receive 25% late penalty for each week late
- Projects: 60% total (15% each)

Policy on Generative AI

While the general use of Generative AI is discouraged in this course, it is acceptable to use Generative AI tools in the process of creating documentation blogs as long as it is used for help with writing and editing text.

Generative AI tools are **prohibited** from use in the creation of text, code and media for use in projects **except when explicit permission** is granted by the instructor **before the project deadline**. In such cases, **the project documentation must include citations**, including the name of the AI service or model used, for each and every instance of use.

BMCC Policies

Class Participation

Participation in the academic activity of each course is a significant component of the learning process and plays a major role in determining overall student academic achievement. Academic activities may include, but are not limited to, attending class, submitting assignments, engaging in in-class or online activities, taking exams, and/or participating in group work. Each instructor has the right to establish their own class participation policy, and it is each student's responsibility to be familiar with and follow the participation policies for each course.

BMCC Policy on Plagiarism and Academic Integrity Statement

Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism. Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's Web site, www.bmcc.cuny.edu. For further information on integrity and behavior, please consult the college bulletin (also available online).

Gender Inclusivity

BMCC community members have the right to use and be referred to according to their preferred name, title, and/or personal pronouns. Everyone also has the right to use all spaces according to their self-identification, including restrooms and locker rooms. To learn more about how to change your preferred name and affirm your gender identity at CUNY (including requesting a new ID card and/or email address), go here: https://www.bmcc.cuny.edu/student-affairs/lgbtq/

Anyone who has experienced harassment related to gender or sexual identification, who needs assistance, or who wishes to file a complaint, can contact the Office of Compliance and
Diversity: https://www.bmcc.cuny.edu/about-bmcc/compliance-diversity/

Free BMCC Student Support Services

BMCC is committed to the health and well-being of all students. It is common for everyone to seek assistance at some point in their life, and there are free and confidential services on campus that can help.

Advocacy and Resource Center (ARC)

https://www.bmcc.cuny.edu/student-affairs/arc/ room S230, 212-220-8195, arc@bmcc.cuny.edu. If you are having problems with food or housing insecurity, finances, health insurance or anything else that might get in the way of your studies at BMCC, contact the Advocacy and Resource Center (formerly Single Stop) for assistance. Please contact us at arc@bmcc.cuny.edu, call 212-220-8195, or come by the office at room S230. You may also contact the Office of Student Affairs, S350, 212-220-8130, studentaffairs@bmcc.cuny.edu, for assistance.

Counseling Center

www.bmcc.cuny.edu/counseling, room S343, 212-220-8140, counselingcenter@bmcc.cuny.edu. Counselors assist students in addressing psychological and adjustment issues (i.e., depression, anxiety, and relationships) and can help with stress, time management and more. This is a free and confidential resource available to all BMCC students. We offer in-person, zoom and phone appointments. Appointments can be made by calling or filling out the form on the homepage.

Learning Resource Center: Tutoring and Other Academic Support

https://www.bmcc.cuny.edu/students/lrc/, room S510 (LRC, Writing Center, ESL Lab, Reading Lab), S534 (Math Lab), and F511, 212-220-1383.

Participation in out-of-class academic support services contributes to the learning process and reinforces in-class learning. Students who attend tutoring have a higher pass rate in courses than students who do not attend tutoring. LRC services include in-person and online tutoring for most courses, and special supplemental instruction (SI) sessions for some select course sections. They also provide assistance with classroom technology. The LRC has academic coaches who help students improve their study skills.

Office of Accessibility

www.bmcc.cuny.edu/accessibility, room N360 (accessible entrance: 77 Harrison Street), 212-220-8180, accessibility@bmcc.cuny.edu.

Students who need academic accommodations in connection with a disability must initiate the request with BMCC's Office of Accessibility (OA). Students need to register with the Office of Accessibility in order to officially disclose their disability status to the College and to determine eligibility for appropriate reasonable accommodations (including any prior IEPs or 504s). Please contact the OA at the start of the semester (or as soon as possible) to coordinate any accommodation request/s: www.bmcc.cuny.edu/accessibility

Office of Compliance and Diversity

https://www.bmcc.cuny.edu/about-bmcc/compliance-diversity, room S701, 212-220-1236.

BMCC is committed to promoting a diverse and inclusive learning environment free of unlawful discrimination/harassment, including sexual harassment, where all students are treated fairly. For information about BMCC's policies and resources, or to request additional assistance in this area, please visit or call the office, or email olevy@bmcc.cuny.edu, or twade@bmcc.cuny.edu. If you need immediate assistance, please contact BMCC Public safety at 212-220-8080.