

# **INTRODUCTION TO VIDEO GAME DEVELOPMENT (UNITY)**

DEPARTMENT OF COMMUNICATION ARTS

DEPARTMENT OF COMPUTER SCIENCE

Rubric #:

COAR 463 001 TOP: INTRO TO GAME DEVELOPMENT 44151

CMSC 391 001 TOP: INTRO TO GAME DEVELOPMENT 44150

Title: INTRODUCTION TO VIDEO GAME DEVELOPMENT

Meeting Times and Days: 11:00 am - 12:15 pm T/R

Room: Engineering Building West 0401

Instructors:

Jason Bennett <jebennett@vcu.edu> ,

David Shepherd <shepherd@vcu.edu>

Office hours: By appointment

Term: Fall 2022

Syllabus Statement: [go.vcu.edu/syllabus](https://go.vcu.edu/syllabus)

Honor System: <https://conduct.students.vcu.edu/vcu-honor-system/>

## **COURSE DESCRIPTION**

This course is lecture and studio-based, focusing on designing and generating interactive content using an industry standard Game Engine in teams of artists and computer scientists.

Course content will include game design, virtual reality, production pipeline, project management, and common studio roles. Projects will include solo and team-based efforts.

CS Juniors interested in working on a game-based project for CS Capstone 2022-2023 are strongly encouraged to take this course, to be better prepared for the Fall Term.

VCUarts students are encouraged to have prior 3D software experience (e.g. COAR 203, COAR 432, KINE 338, etc.)

## **LEARNING OUTCOMES**

Upon successful completion of the course, a student will be able to:

- Demonstrate awareness of major aspects of production of modern games and real-time visualization, from initial conceptualization, through development of code and assets, to packaging a build.
- Utilize elements of [Game Mechanics](#) in the creation of computer software.
- Utilize [Visual Design Elements and Principles](#) in the creation of computer software.
- Utilize rudimentary programming (eg. Blueprint / Visual Scripting) in a game engine.
- Create and maintain organized project / file structures on shared projects.
- Generate custom content (2D and 3D) for use in a game engine.
- Import custom and existing (i.e. library, store) content into a game engine.
- Participate in productive, insightful critique and discussion on game topics and projects. (Analyze, Evaluate, Create.)
- Work professionally & ethically as an individual operator and as a team member. (Help each other out, be dependable, be open & [honest](#).)
- Create and follow a calendar for a self-generated project in accordance with planned milestones. (Plan it, Build it, Ship it!)

## **CALENDAR :**

[This calendar is an outline, and subject to change.](#)

Students wishing to work ahead must confirm tasks with instructor.

## **ASSESSMENT**

Completion (of Minor Projects - incl. Solo and Partner) - **50%**

Final Project (Product Grade and Evaluation (Peer, Self)) "Is it engaging and good-looking?" - **50%**

## **GRADING**

A: Excellent work; "Best Of" assignment. Free from technical errors. Goes above and beyond on project.

B: Good work. Above average, containing few errors.

C: Meets expectations; average example for assignment.

D: Below average for assignment. Poor process or understanding of concepts.

F: Does not complete assignment; major technical / process errors.

## **ATTENDANCE POLICY**

This course is fast-paced and technically demanding. All students are required to attend all class sessions in order to prevent falling behind. As students begin work on multi-session projects, flexibility for remote working sessions may be considered on a case-by-base basis.

Absences are factored into grades. COAR Departmental Policy :

- Two late arrivals (more than 15 minutes) or early departures = one absence
- Two absences = allowed for a course that meets twice per week. (One absence allowed in weekly courses.)
- Three absences result in a lowered letter grade, furthered by each additional absence.

## **CONDUCT**

1. Engage in discussions and critique at appropriate times.
2. Respect others, and keep distractions / volume to a minimum.
3. No social media in class. (Devices away, out of sight.)
4. No food / drinks in class. (Sealed containers OK. Water OK.)
5. Come to class prepared (mentally and physically).
6. Respect the environment. (If you see something broken, please report to <https://fss.vcu.edu/> and instructor.)

## **REQUIRED MATERIALS (Materials REQUIRED each class, or student may be marked absent.)**

1. Materials to take notes or sketch (Notepad & writing tools.)
2. Personal machine meeting Unity specs.

## **RECOMMENDED MATERIALS (Good to have.)**

1. Game controller. (Optional - for playtests.)
2. Digital tablet; Wacom, similar. (Optional - for creating 2D textures / paintings.)

Additional materials may be required by the instructor throughout the course.

## **RESOURCES**

Use [VCU Libraries](#) to find and access library resources, spaces, technology and services that support and enhance all learning opportunities at the university.