## DAGV 1400 *Scripting for Animation and Games*

### Course Description

In this introductory course, students will use Unity to learn programming fundamentals in creating their projects. During the course, they will develop several prototypes, and the instructor will manage a larger personal project more independently and complete challenges and quizzes to solidify and expand their new knowledge. The skills they learn will align with the Unity Certified User exam, providing them with a foundational understanding of Unity and C# programming and preparing them for certification. In addition to these core technical competencies, students will learn how to manage a project from start to finish: develop a concept, create a project plan, prioritize tasks, and hit milestones. By the end of the course, students will be confident to create anything they want with Unity and C#, given enough time and resources.

### Course Outcomes

Upon successful completion of this course, you will be able to:

* Demonstrate proficiency in scripting in a game engine by properly utilizing parameters, methods, conditionals, loops, and arrays.
* Use object-oriented techniques to build simple functionality within animation software tools.
* Perform testing, debugging, documenting, and designing within a game engine.
* **Implement data types and scripting efficiencies within a game engine environment**.

Skills you will gain:

#### C# Skills:

* With this knowledge, you will gain a foundational understanding of programming in C# and will feel confident that you can bring new features into existence.

#### Unity Skills:

* You will be confident that you can create anything you want in Unity with enough time and resources.

#### Project Management:

* As you create and manage your projects throughout this course, you will understand how to manage a project from start to finish, including outlining your concept, setting project milestones, and tracking progress.

#### Unity Certified User Exam:

* Should you choose, you will have the skills and confidence to pass the Unity Certified User exam, earning an official certificate validating your skills.

### Prerequisites and Needed Skills

Course Prerequisites: None

### Required Materials, Fees, and Technology Tools

[GitHub Account (Student Version)Links to an external site.](https://education.github.com/pack)

[GIT Kraken (Student Version)Links to an external site.](https://www.gitkraken.com/)

[Unity 3D (Student Version)Links to an external site.](https://unity.com/)

### How This Course Works

#### Course Mode: Online

Canvas is where content, grades, and communications will reside for this course.

Students will complete one module each week, found in the modules section of Canvas. Within the Modules, students will have areas that may include watching videos, reading content, practicing activities, discussing content, completing labs, submitting work, and assessing with quizzes.

The course is three-credit-hour; students should spend up to **9+ hours a week** completing course activities.

Atypical elements of the course are scripting in a game engine and committing work to a repository.

**Third-Party Usage:**

The course will use the following third parties for course content:

[w3schools.comLinks to an external site.](https://www.w3schools.com/cs/)

[Unity.comLinks to an external site.](https://unity.com/)

[GitHub.comLinks to an external site.](https://github.com/)

[gitkraken.comLinks to an external site.](https://www.gitkraken.com/)

#### Student Responsibilities:

* *Start class during the first week of the term.*
* ***Be accountable by setting aside regular weekly time to complete course activities and assignments on time, as noted per the due dates****.*
* *Learn Canvas, including communication tools (e.g., discussion, Canvas inbox, etc.). If you have technology-related problems, contact the* [*Service DeskLinks to an external site.*](https://www.uvu.edu/servicedesk/)
* *Abide by ethical standards. Your work must be your own.*
* *Contact your instructor as early as possible if an emergency arises. Be sure to ask for an extension before the last minute.*
* ALL work submitted is done solely by the student. Use of any outside work will result in a failing grade. The course will be broken down into a series of outcomes; each outcome will have some modules to help the students work through the class. Each module will contain Information about the results, Demonstration Video(s), Projects and Milestones, Quizzes, and Exams.
* Students are expected to work, be sect-motivated, and follow through. There is an expectation of creativity and problem-solving.
* Students are expected to work at least six hours a week on their objectives for the course. They are supposed to plan and execute these objectives regularly.

#### Instructor Responsibilities:

* *Respond to emails within ONE business day. If there are multiple emails regarding the same question or concern, they may respond to an announcement to the entire class.*
* *Provide timely, meaningful, and constructive feedback on assignments.*
* *Facilitate a practical learning experience.*
* *Refer students to appropriate services for non-course content-specific issues—for instance, technical problems, writing labs, accessibility services, etc.*
* *Mentored students throughout the course.*

**Policies**

Reminder: work must be 100% original and made by the student for the class. Due to data loss or mismanagement, the course will only accept completed or lost projects.

Students must understand that university policy dictates ownership of intellectual property developed in the context of a school course. The University owns Such products, not the students, faculty, or staff involved in these intellectual property assets' instruction, coordination, support, and production.

As a student majoring in Digital Media, you may wish to market a project (or any other title developed while a student). A process has been established through UVU's Office of Technology Commercialization. Students must conform to this university department's rules, policies, and procedures. Discussions on the part of this process will be in class.

#### Inclusion Statement

UVU is committed to preparing all students and employees for success in an increasingly complex, diverse, and globalized society. We promote civility and respect for the dignity and potential of each individual. We seek to advance the understanding of diverse perspectives. We value and encourage collegial relationships and mutual concern for students, faculty, and staff. We acknowledge and seek to address the needs of underrepresented populations and students with varying levels of academic preparation, even as we strive to provide access and support for all students and employees in culturally appropriate and responsible ways.

### Grading and Late Work Statement

**Grading Criteria**

Instructors and peers will grade using a rubric provided in course outcomes.

In part, projects will be graded objectively by measurable advancement, without bias or opinion, including technical aspects and concepts and a demonstration of the toolset or software.

Assignment grading is by completion. The assessment will include the elements and concepts of design, the use of problem-solving skills, and craftsmanship. It is relevant to industry standards, which define the quality of the work submitted as determined by the course instructor.

There is a high expectation of academic integrity on all course assignments and activities. Plagiarism, cheating, and fabrication or falsification of projects will not be tolerated and will have severe consequences. If Students have questions, please read the University's "Student Rights and Responsibilities" policy.

**Late work:** The course will accept late work; however, 10% will be taken off automatically each day after the deadline.

#### Grading Scale:

Students will use the following grading standards in this class:

**GradePercent**

**A**94-100

**A-**90-93

**B+**87-89

**B**83-86

**B-**80-82

**C+**77-79

**C**73-76

**C-**70-72

**D+**67-69

**D**63-66

**D-**60-62

**E**0-59

#### Assignment Categories

**Activity**

**[Percent/Point]**

Assignments/ Submissions

20%

Discussions

20%

Quizzes

10%

Labs

30%

Projects

20%

#### Late Work Statement:

### Assignment and Assessment Descriptions

#### Assignments:

Students complete tutorials, work through labs, practice comprehensively, and submit assignments. Students practice 3-4 times a week on different days. Students will submit all projects through Canvas. Students will store their work on a repository using github.com.

#### Discussions:

Discussions are to help you and other students work through the course content. It will help you invent new ideas, share thoughts about Scripts game development, and help.

Discussions will be opportunities to explore topics together. Posts to the discussion add significantly to the conversation and support your point of view. *Comments that add little to a discussion will receive* ***no credit****.* It is okay to disagree in a discussion. Much learning happens when we disagree. However, we must be respectful and keep our online classroom safe.

Due dates for discussions correspond with the initial post date, usually a **Thursday**. Follow-up comments are due by Sunday. Follow-up posts are expected to be after the due date and are not marked as late. Discussions conclude by the **Sunday** following the due date. After this, posts are late.

#### Assessments:

Small quizzes will make students competent in materials; students will take these quizzes here in Canvas. These quizzes are short, straightforward, and repeatable.

### Course Schedule

[**Course Schedule Canvas page**](https://uvu.instructure.com/courses/586590/pages/course-schedule-2)

### UVU Policies and Resources

[Policies and ProceduresLinks to an external site.](https://www.uvu.edu/otl/students/policiesandprocedures.html)

[Student Success ResourcesLinks to an external site.](https://www.uvu.edu/otl/students/index.html)

[Student Grievances FormLinks to an external site.](https://connect.uvu.edu/submitter/form/step/1?Guid=30ec7857-3557-4196-89b6-5582919ea75e)

[Accessibility Services Links to an external site.](https://www.uvu.edu/accessibility-services/)

* Students needing accommodations due to a disability may contact the UVU Office of Accessibility Services (OAS) on the Orem Campus in LC 312. Call the OAS office at 801-863-8747 to schedule an appointment or speak with a counselor. For deaf/Hard of Hearing individuals, email nicole.hemmingsen@uvu.edu or text 385-208-2677.

[Campus ResourcesLinks to an external site.](https://www.uvu.edu/otl/students/campus_resources.html)

### Technology Support Services

For 24/7 technical support, contact [Instructure's Canvas Support Live ChatLinks to an external site.](https://cases.canvaslms.com/liveagentchat?chattype=student&sfid=001A00000085cNxIAI)

(385) 204-4930 (Available 24/7)