

TESD 1620 - Computer Game Programming (4 Credits)

Course Description

Our computer game programming course covers a wide range of skills used by computer game programmers every day. We explore many different aspects of computer games including working with images, using databases in games, animations, and developing an efficient game loop. Students will develop a working game using many programming skills already learned throughout their courses such as objects, functions, and loops.

Course Objectives

- Explain game loops and how to efficiently set them up.
 - Work with assets such as images and sounds.
 - Build effective animations.
 - Fine tune the user experience and create a working game.
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Course Outline

- Getting started with Unity
- Real time 3d and Programming
- Real time audio and 2d
- Introduction to Creative Core
- Shaders and Materials
- Lighting
- Animation
- VFX

Assignments and Assessments

Course Introduction and Standards
Meet Your Instruction Team
Rules of the Lab
CS Code of Conduct Policy
Remind App
Submitting Assignments in Canvas
Taking a Screenshot
Writing Standards
Orientation
Syllabus Agreement
Installing Unity
Starting Unity on line course
Unity Essentials
Checkpoint Meeting Module 1
Student Acknowledgement Statement Module 1
Unity Essentials Continued
Checkpoint Meeting Module 2
Student Acknowledgement Statement Module 'L
Junior Programmer: Create with Code 1
Checkpoint Meeting Module 3
Student Acknowledgement Statement Module 3
Beginning Creative Core
1st Unity Project
Checkpoint Meeting Module 4
Student Acknowledgement Statement Module 4
Shaders and Materials course
Checkpoint Meeting Module 5
Student Acknowledgement Statement Module 5
Lighting course
Checkpoint Meeting Module 6
Student Acknowledgement Statement Module 6
Animation course
Checkpoint Meeting Module 7
Student Acknowledgement Statement Module 7
VFX and Cameras courses
Final Unity Project
End of Course Survey
Course Completion Checkpoint Meeting
End of Course Student Acknowledgement Statement

Subject to change. Please consult your Canvas course for the most current instructions and updates.

Classroom Hours

Mo, Tu, W, Th
8:00 AM - 11:00 AM
12:00 PM - 3:00 PM
4:00 PM - 7:00 PM

Friday
8:00 AM - 11:00 AM
12:00 PM - 3:00 PM

For a full list of course hours visit: [Course Schedule](#)

Instructor Contact Information

Jason Adams — jadams@stech.edu
Dallin Savage — dsavage@stech.edu
Elie Wamana — ewamana@stech.edu

Office Hours: By appointment

Email is the preferred method of communication; you will receive a response within 24 hours during regular business hours.

Canvas Information

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

- stech.instructure.com
- For Canvas passwords or any other computer-related technical support contact Student Services.
- For regular Hours and Weekdays call (435) 586 - 2899.
- For after Hours & Weekends call (435) 865 - 3929 (Leave a message if no response).

Course Policies

Course Grading: All assignments in this course require 100% score with unlimited submissions. All quizzes require a minimum score of 80%.

High School Power School Grades: Quarter student grades will be determined by student progress percentage. Faculty will use the higher percentage of either 1) quarter progress, or 2) cumulative progress for the current training plan year.

Grade Scale: The following grading scale will be used to determine a letter grade.

• A : 94 - 100%	• B : 83 - 86%	• C : 73 - 76%	• D : 63 - 66%
• A- : 90 - 93%	• B- : 80 - 82%	• C- : 70 - 72%	• D- : 60 - 62%
• B+ : 87 - 89%	• C+ : 77 - 79%	• D+ : 67 - 69%	• F : 0 - 59%

Course Policies: You are required to keep your progress and attendance at 67% minimum. You must complete this program within 150% estimated program length. You are permitted one 15 minute break every 90 minutes. If you take more than one break in a 90 minute period or your break lasts longer than 15 minutes, your attendance will be penalized. 10 consecutive absences will lead to being withdrawn from the program. Please notify your instructors about absences as soon as possible. If absence is due to illness, please email your instructors prior to end of day.

Cell Phone/Electronics: Cell phones cannot be used during class time. You may bring your personal computers to class. You must be on topic in the lab while clocked-in.

Industry Environment: Computer science typically is very sedentary. This means you may sit at a desk for long hours. Be sure to move and get what exercise you can.

Iron County High School Students: Your progress grade will be submitted every Friday to PowerSchool. You must maintain a progress percentage of 67% or over per quarter to stay in the course.

Additional Information

InformaCast Statement: Southwest Tech uses InformaCast to ensure the safety and well-being of our students. In times of emergency, such as weather closures and delays, this app allows us to promptly deliver notifications directly to your mobile devices. To stay informed and receive real-time updates, we encourage all students to sign up for notifications. Your safety is our priority, and staying connected ensures a swift response to any unforeseen circumstances. More information and directions for signing up are available at: <https://stech.edu/emergency-notifications/>

Internet Acceptable Use Policy: The student is expected to review and follow the Southwest Technical College Internet Safety Policy at: <https://stech.edu/students/policies/>

Student Code of Conduct Policy: The student is expected to review and follow the Southwest Technical College Student Code of Conduct Policy at: <https://stech.edu/students/policies/>

Accommodations: Students with medical, psychological, learning, or other disabilities desiring accommodations or services under ADA, must contact the Student Services Office. Student Services determines eligibility for and authorizes the provision of these accommodations and services. Students must voluntarily disclose that they have a disability, request an accommodation, and provide documentation of their disability. Students with disabilities may apply for accommodations, based on an eligible disability, through the Student Services office located at 757 W. 800 S., Cedar City, UT 84720, and by phone at (435) 586-2899. No diagnostic services are currently available through Southwest Technical College.

Safety and Building Maintenance: The College has developed and follows a variety of plans to ensure the safe and effective operation of its facilities and programs. The following plans are available online:

1) Facilities Operations and Maintenance Plan; 2) Technical Infrastructure Plan; and 3) Health and Safety Plan.

Withdrawals and Refunds: Please refer to the Southwest Technical College Refund Policy at: <https://stech.edu/students/policies/>

Any high school or adult student, who declares a technical training objective is eligible for admission at Southwest Technical College (Southwest Tech). Program-specific admissions requirements may exist and will be listed on the Southwest Tech website. A high school diploma or equivalent is not required for admission but is mandatory for students seeking Title IV Federal Financial Aid.

Non-Discriminatory Policy: Southwest Technical College affirms its commitment to promote the goals of fairness and equity in all aspects of the educational enterprise, and bases its policies on the idea of global human dignity.

Southwest Tech is committed to a policy of nondiscrimination. No otherwise qualified person may be excluded from participation in or be subjected to discrimination in any course, program or activity because of race, age, color, religion, sex, pregnancy, national origin or disability. Southwest Technical College does not discriminate on the basis of sex in the education programs or activities that it operates, as required by Title IX and 34 CFR part 106. The requirement not to discriminate in education programs or activities extends to admission and employment. Inquiries about Title IX and its regulations to STECH may be referred to the Title IX Coordinator, to the Department of Education, and/or to the Office for Civil rights.

If you believe you have experienced discrimination or harassment on our campus, please contact the Title IX Coordinator, Cory Estes: cestes@stech.edu, (435) 865-3938.

For special accommodations, please contact the ADA Coordinator, Cyndie Tracy: ctracy@stech.edu, (435) 865-3944.

Southwest Technical College

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