

Level Design (GAME 1304)

CREDIT

3 Semester Credit Hours (2 hours lecture, 4 hours lab)

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

There are no Prerequisite/Co-requisites for this course

COURSE DESCRIPTION

Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles.

COURSE OBJECTIVES

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

1. Analyze the pros and cons of a level including balance and emotional impact.
2. Create original game environments using existing game engines and tools.
3. Evaluate existing architectural spaces for game aesthetics.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Sarita V. Medhekar
Email:	smedhekar@lit.edu
Office Location:	Virtual
Office Hours:	Virtual



REQUIRED TEXTBOOK AND MATERIALS

NO Textbook required. All notes will be provided by the instructor on Blackboard.

ATTENDANCE POLICY

Regular attendance will be monitored throughout the course based on the online project's submission.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop completing the assignments and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16- week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR

	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Week 1 8/26 – 9/01	Getting Started module in D2L Downloading Required Software Introduction to Unity game engine and C# basics Overview of the Unity Game Engine Introduction to the C# Programming Language. Basics of the Unity Interface		
Week 2 to Week 5 9/02 to 9/22	C# Basics: Syntax, variables, and data types Control flow (if statements, loops) Methods and functions Midterm Project		Sunday, September 22, 2024
Week 6 to Week 13 9/23 to 11/17	3D Graphics / Programming: Materials, Textures, and Lighting Techniques in Unity. Cameras, Animation, and 3D Model Manipulation. Particle Systems for Visual Effects.		

	Environmental Design. Asset Store Integration for Enhanced Graphics. Sound Programming: Basics using System.Media Third-party audio libraries Game Development Basics: Game loop implementation Event-driven programming (C# events and delegates) User input handling Working on making Game using Unity Game Engine.		
Week 14 to Week 16 11/18 – 12/08	Final project Creating a game that is fully functioning.		Sunday, December 08, 2024

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Midterm project 30%
- Final Project 70%

GRADING SCALE

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at

<http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional

broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](https://www.lit.edu/specialpopulations).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

AI STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into the classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

ADDITIONAL COURSE POLICIES/INFORMATION

1. Students should log onto Blackboard and access this course at everyday to keep on track with online videos and do the projects by each due date.
2. Cheating of any kind will not be tolerated.
3. Internet Usage – Students are expected to use proper net etiquette while participating in course emails and making final game projects.

4. Students should turn projects in by the posted due date and time. The due dates are to keep you on track to a successful finish.
5. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
6. Grades will be posted under the Grades icon on the class gradebook. If you see a missing grade, please email me to call it to my attention so I can correct it.
7. If you need to contact the instructor my LIT e-mail is **smedhekar@lit.edu**. Your e-mail will be answered within 24 hours Monday – Thursday and within 72 hours Friday - Sunday. I STRONGLY ENCOURAGE/PREFER EMAILING MY SCHOOL EMAIL AND NOT SENDING A MESSAGE THROUGH BLACKBOARD. Be sure to include specific details and your section number.
8. All projects will be completed using the link in Blackboard. Projects CANNOT be submitted via email. All due dates will be posted in Blackboard.