

# MRTS 3260 Section 001 Intro Level Design

## University Of North Texas

### Location:

RFTS room 180Y

### Days:

Monday

### Time:

5:00 pm - 7:50 pm

### Instructor:

Tim Campbell

[Timothy.Campbell@unt.edu](mailto:Timothy.Campbell@unt.edu)

### Office Hours:

Students can meet with me immediately following class as needed (RFTP Room 180Y).

Alternatively, virtual meetings can be arranged as needed. If you require an alternative time for discussion or assistance, please feel free to submit a request via email or in person after class and I will do my best to accommodate at a time that is mutually convenient.

### Course Description:

In this Intro to Level Design for Video Games course, we'll dive into the history and significance of crafting game levels from the early 1970's to today's complex designs. Along the way, we will explore spatial construction, player interactions, and the theories shaping successful level design. This will be accomplished through a combination of lectures, GDC talks, assigned readings, and hands-on work within the Unreal 5 game engine.

Throughout the semester we will also progressively build towards a completed 3D level through an iterative process in which you will construct, present, and playtest your designs.

We will build confidence in the practice of building a playable level through the different phases, including: written concept documentation, research, 2D maps, in-engine block out, visual scripting and lighting implementation to a final roughed out level.

### **Learning Outcomes:**

- Research, design, build and test 2D and 3D game levels using the Unreal engine.
- Evaluate all facets of the level design process from “paper design” top down maps to a polished 3D blockout through the entire level design pipeline.
- Identify, analyze, and break down existing video game mechanics to incorporate into video game space.
- Develop an understanding of current methodologies, conversations and research in level design.

### **Communication Practices:**

Connect with me through email ([Timothy.Campbell@unt.edu](mailto:Timothy.Campbell@unt.edu)) and/or by attending virtual office hours.

### **Attendance Policy:**

Because this course involves collaboration, participation is essential to learning. Our project-based activities require you to be actively engaged in discussions and group work. Regular attendance is strongly recommended.

However, I understand the demands of real life and that tardiness and absences may sometimes occur. In these circumstances, I simply ask for you to communicate and provide context.

If you must miss class, please let me know prior to your absence. Attendance will count towards a student's final grade, accounting for 10% of your overall final grade.

### **Late Work Policy:**

Late work may be turned in for most assignments and will still be accepted unless otherwise stated, however there will be a point penalty assessed as follows. 10% will be deducted for every week that the assignment is late, up to a maximum of 30%.

- Please note that late work **\*will not\*** be accepted for the "Progress Update" turn-ins for projects. Those need to be turned in on time to receive feedback in a timely manner.

- This means that an assignment which has been turned in 15+ days late will receive a **\*maximum\*** score of 70%.
- I do allow resubmissions of work that has been turned in on time if the student wishes to address feedback on their projects and resubmit.

#### **Examples of Late Work Scoring:**

- An assignment turned in 1-7 days late will be assessed a 10% point deduction
- An assignment turned in 8-14 days late will be assessed a 20% point deduction
- An assignment turned in 15+ days late will be assessed a maximum 30% point deduction

#### **Evaluation Methods and Criteria Methods:**

Presentations, papers, production and public critiques.

#### **Suggested texts (not required):**

1. Salmond, M "Video Game Level Design: How to Create Video Games with Emotion, Interaction, and Engagement" -- Bloomsbury Academic, 2021, ISBN: 1350015725
2. Totten, C "An Architectural Approach to Level Design: Second edition" -- A K Peters/CRC Press, 2019 ISBN: 081536136X
3. Lawsen, M "The Visual Unreal Engine 5: A Hands-On Guide to Blueprints and Game Logic and Level Design" -- Independently Published, 2019 ISBN: B0FPFZBFW4

#### **Required Software:**

Unreal Engine: Available for free on the Epic Games Launcher

#### **Optional Not Required Software:**

MS Word, Paint or Photoshop, Powerpoint

#### **Grade Scale:**

90+ = A  
 80-89 = B  
 70-79 = C

60-60 = D

59-0 = F

## **Assignments and Projects:**

**In-Class Activities** - Periodic in-class activities related to lecture topics.

**Worksheets** - Assigned weekly, typically related to personal reflections after watching assigned videos and/or playing assigned games. Partway through the semester, these will shift to becoming playtest feedback forms.

**Project 1** - (Level Design Document) A complete LDD including a creative brief, references, 2D level layout, and written walkthrough.

**Project 2** - (Final 3D Level) A complete level blockout created in the Unreal Engine, including multiple paths, interactive objects, props, and lighting.

**Final Postmortem** - Written journal about lessons learned while building your LDD and Blockout, including successes, failures, and takeaways.

## **Final Grade Formula:**

**Attendance:** 10%

**Worksheets:** 20%

**Project 1 - Level Design Document:** 30%

**Project 2 - Final 3D Level:** 30%

**Final Postmortem:** 10%

## **Weekly Class Schedule:**

The weekly schedule is subject to change based on student needs, guest speakers and needs that arise. Students will be notified of changes.

## **Acceptable and Unacceptable Use of AI:**

Generative AI tools (e.g. ChatGPT, Dall-e, etc.) are permitted to be used in this course under specific circumstances:

- They can be used to fuel your creative process as sources for potential ideas, approaches, or solutions, however, they CANNOT be used to directly create any portion of the end-product that you turn in for any assignment.
  - For example, you **cannot**:
    - Use AI to generate your responses to a Worksheet or discussion board post.
    - Use AI to generate the 2D layout map for your level.
    - Use AI to create your Level Design Document or any information featured within it.
    - Use AI to summarize assigned Videos rather than watching them.
  - However, you **can**:
    - Use AI as a resource for visual scripting in Unreal Engine.
    - Use AI to ideate and generate possibilities that feed into your personal creative process.
    - Use AI to generate reference images for your Mood Board.

Simply put, you can use AI as part of the process to produce *your own* creations (posts, documentation, levels), but you cannot use it to replace your own creations or as a substitute for your own final work product.

Additionally, if you use AI tools:

- You are responsible for the information you submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content).
- Any usage of AI tools must be clearly disclosed (along with a note about the scope and purpose of its usage) in order to stay within university policies on academic honesty.
- Any assignment that is found to have used generative AI tools in unauthorized ways or to generate the final submission for any assignment will result in a penalty on that assignment.
- When in doubt about permitted usage, please ask for clarification.

**Inclusion Statement:**

I value the many perspectives students bring to our campus. Please work with me to create a classroom culture of open communication, mutual respect, and belonging. All discussions should be respectful and civil. Although disagreements and debates are encouraged, personal attacks are unacceptable. Together, we can ensure a safe and welcoming classroom for all. If you ever feel like this is not the case, please stop by my office and let me know. We are all learning together.

### **ADA Statement:**

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the [Office of Disability Access](http://www.unt.edu/oda) website (<http://www.unt.edu/oda>). You may also contact ODA by phone at (940) 565-4323.

### **Weekly Schedule:**

#### **WEEK #1**

#### **Monday 1/12 - Course Introduction**

##### **Agenda:**

- Intro to the class
- Professor/student introductions
- Syllabus review
- The road ahead

#### **WEEK #2**

#### **Monday 1/19 - MLK DAY**

## **Agenda:**

- **NO CLASS TODAY**

## **WEEK #3**

### **Monday 1/26 - History of Level Design**

#### **Agenda:**

- Recap after break and discuss any games played
- What is Level Design?
- Origins and evolution of Level Design
- Genre breakdown
- What are we going to create?
- Final Project

## **WEEK #4**

### **Monday 2/2 - The Level Design Process**

#### **Agenda:**

- What is the step-by-step process of Level Design?
- Phases of development
- Key terms & concepts
- How to think about Level Design

## **WEEK #5**

### **Monday 2/9 - Creating a Level Design Document (LDD)**

#### **Agenda:**

- What is "Good" Level Design?
- Purpose of Documentation
- Anatomy of a Level Design Document (LDD)
- How to Begin Documenting YOUR Level

## **WEEK #6**

### **Monday 2/16 - Creating Context**

**Agenda:**

- What is Context?
- Tone
- Setting
- How to create Mood Boards

**WEEK #7**

**Monday 2/23 - Level Layout**

**Agenda:**

- What are “Paper Maps”?
- Flow & pacing
- Walkthrough
- How to create Paper Maps

**WEEK #8**

**Monday 3/2 - Intro to Unreal**

**Agenda:**

- What is Unreal?
- Creating a level file and basic geometry
- Utilize “Game Animation Sample” (GAS) template
- How to create a Playground / Gym level

**WEEK #9**

**Monday 3/9 - SPRING BREAK**

**Agenda:**

- NO CLASS TODAY

**WEEK #10**

**Monday 3/16 - Primary Play Spaces**

**Agenda:**

- **Playtest Playground / Gym levels**
- **Beginning of Iteration 1**
- What is a Blockout?
- Modularity
- Designer “Intent”
- How to create a Critical Path

## **WEEK #11**

### **Monday 3/23 - Secondary Play Spaces**

#### **Agenda:**

- What is the Player Experience?
- Player Guidance
- Pacing & Mechanics
- Shape Language
- How to incorporate Alternate Paths

## **WEEK #12**

### **Monday 3/30 - Refinement Through Iteration**

#### **Agenda:**

- **Playtest 1**
- **Beginning of Iteration 2**
- What is Iteration?
- Playtesting & Feedback
- Documenting Iteration
- How to conduct a Playtest

## **WEEK #13**

### **Monday 4/6 - Intro to Blueprints**

#### **Agenda:**

- What is a Blueprint?
- Visual Scripting
- Creating dynamic map elements
- How to create a Blueprint

## **WEEK #14**

### **Monday 4/13 - Intro to Lighting**

#### **Agenda:**

- **Playtest 2**
- **Beginning of Iteration 3**
- What is level lighting?
- Using lighting to improve Level Design
- How to apply lighting to a level

## **WEEK #15**

### **Monday 4/20 - Incorporating Assets**

#### **Agenda:**

- What is the Unreal Marketplace?
- Types of assets
- Using assets to improve a Blockout
- How to integrate store assets
- Prep for Final Project Showcase

## **WEEK #16**

### **Monday 4/27 - Final Project Showcase**

#### **Agenda:**

- Student Progress Showcase
- Playtest 3 (Final)

## **WEEK #17**

### **Monday 5/4 - FINALS WEEK**

#### **Agenda:**

- **NO CLASS TODAY**
- **LAST DAY THAT LATE ASSIGNMENT SUBMISSIONS CAN BE TURNED IN FOR CREDIT**