

LEVEL DESIGN

1 | Basics

Instructor: Ash Rezvani

Course: MART 391 Sect: 04

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Semester: Fall 2024

Office Hours: McGill 226, Tues
10am-12pm and Thurs 3pm-5pm

Schedule: UC 220, Tues & Thurs
1pm-2:20pm

2 | Course Description & Outcomes

Level design is all about crafting interactive, evocative digital spaces. A level designer is responsible for creating immersive gameplay experiences for players and designing how a player flows through a game. We'll explore principles from many disciplines to learn how to design engaging gameplay experiences, and build a generalized level design toolkit that you can use regardless of game genre. Finally, you'll put it all into practice and design a few levels for your final project!

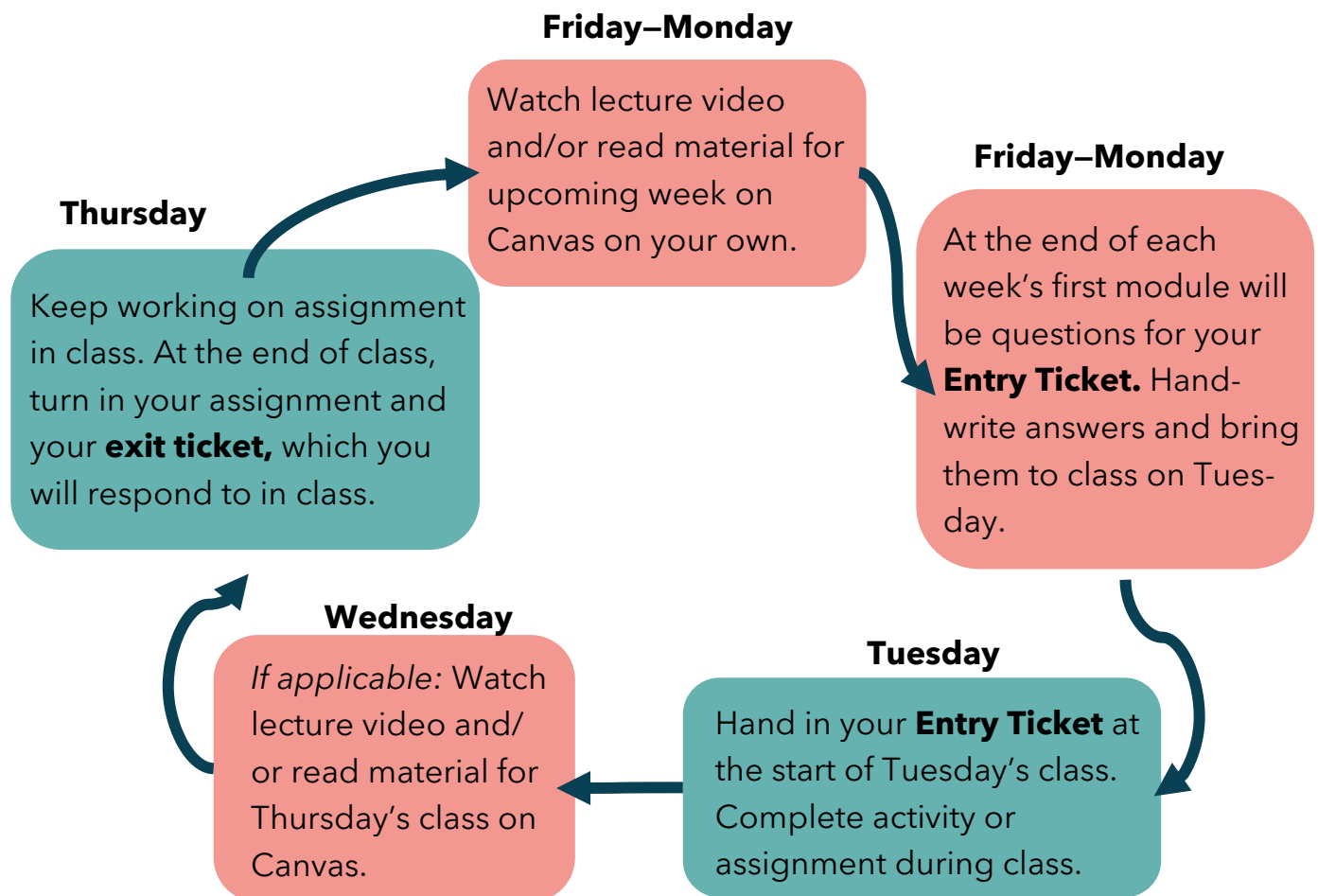
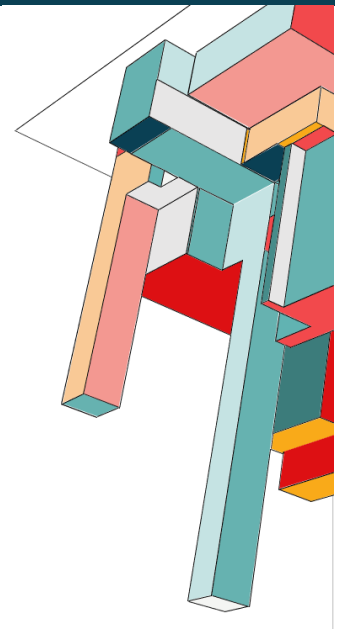
By the end of this course, you will be able to:

1. Apply relevant concepts from architecture, game design, film, theater, aesthetics, storytelling, and psychology to the design of evocative and playful digital spaces
2. Understand the strengths and weaknesses of different level structures and how to use them effectively within video game genres
3. Design engaging challenges, puzzles, and encounters for both single-player and multiplayer games
4. Establish a distinct and consistent visual language to guide player navigation
5. Use environmental storytelling, world building, and pacing methods to tell an immersive story
6. Be familiar with the level production process and a variety of notation methods to communicate your level design work, such as event maps, proximity diagrams, beat maps, etc.

3 | Course Structure & Expectations

This course will be taught through in-class activities and lectures, field trips, pre-recorded lecture videos, assignments, group discussions, in-engine work, and short reflective writing pieces. At the start of each new week (Sunday at midnight) the upcoming week's lecture videos, other materials, and assignments will be made available to you on Canvas. If you cannot make it to class, please email me beforehand.

This class follows a "flipped classroom" format. This means that you will learn the week's material on your own time *before class*, and then we will complete assignments and activities in class. Here's what this should look like:

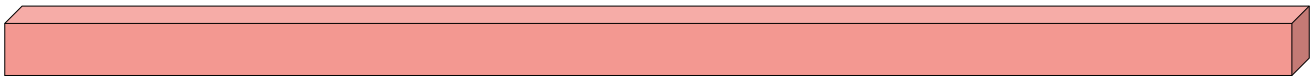


All major assignments will be posted to the class Canvas page. Please frequently check the course Canvas page and your student email. You can use my email or message me on Canvas if you need to contact me.

4 | Course Work & Assignments

All homework has been designed with your scheduling needs in mind. That being said, I know things come up in life – if you know you will be submitting work late, please email me ahead of time and I can waive the late penalty for you. Please do not hesitate to reach out and email me if you have any questions about assignments!

If you are struggling with managing your time, please come talk to me and I will help you get back on track. The point of this class is for you to learn, and I am happy to help in any way that I can if you find yourself confused or having problems!



Entry Tickets - 20%: At the beginning of the first class of the week, you will need to turn in a piece of paper with responses to questions posted on Canvas. These questions will ask you to reflect on the upcoming week's material and come up with questions of your own you'd like to answer about the week's topic. **Due: Beginning of class every Tuesday.**

Exit Tickets - 20%: At the end of the last class of the week, you will turn in a piece of paper with a short paragraph response reflecting on what you found most useful or important about the weekly topic. **Due: End of class every Thursday.**

⇒ **Your lowest two scores will be dropped for both your entry and exit tickets (total of 4),** so you have four "free passes" in case something comes up, you need to take a mental health day, or simply just don't feel like doing a particular exercise!

Assignments - 30%: Every few weeks you will have a larger assignment due. Assignments will involve playing games and analyzing their levels, designing levels using different notation methods or a game engine, and/or providing feedback to your peers on their design. We will often have time in-class for you to complete assignments, but you should not rely on this time to fully complete all your assignments. **Due: See assignment for details.**

Ludic Sketch - 30%: Create a ludic sketch. This entails creating an early game level, a mid-game level, and a late game level. Plan your sketch first by using a combination of notation methods, detailed documentation, and annotated maps. Then, using a game engine of your choice, build a playable prototype of at least one of your levels. **Due: Sunday, December 8th by 11:59pm.**

5 | Late Policy

For every day the assignment is late after the due date, 10% of the maximum will be deducted from the assignment score. I would rather you complete the work and learn from it than not do it at all! **No assignments will be accepted once they are more than a week late.**

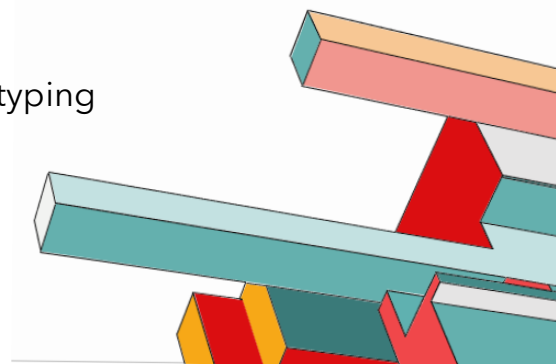
⇒ In the case of a technical issue at the deadline, you **MUST** send me a screenshot of the error message **AND** a copy of your assessment to my email at the time of occurrence. If you leave it to the last minute and simply time out while uploading, this is **NOT** an acceptable reason for late submissions.

6 | Required Materials

There is no required textbook for this class. All required reading will be posted to the class Canvas page. Familiarity with a game engine is preferred, but we will cover the basics when we do in-engine work.

You should also acquire the following tools:

- Notebook with graph paper for notetaking & paper prototyping
- Colored pencils
- Eraser
- Ruler



7 | Grades

100 - 93	A
93-90	A-
89-87	B+
86-84	B
83-80	B-
79-77	C+

76-74	C
73-70	C-
69-67	D+
66-64	D
63-60	D-
59-below	F

8 | Accommodations

Students with disabilities may request reasonable modifications by contacting the DSS office. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). For more information, please consult <http://www.umt.edu/disability>

9 | Taking Care of Yourself

There's a lot going on in the world right now. If you or someone you care about is experiencing hardships, feeling overwhelmed, depressed, or in need of support, you can view mental health resources available to you at UM [here](#). If you want help figuring out what resources might be helpful to you, you can always contact me at ashley.rezvani@mso.umt.edu.

10 | Land Acknowledgement

The Séliš-Qłispé Cultural Committee created the following language, "*The University of Montana acknowledges that we are in the aboriginal territories of the Salish and Kalispel people. Today, we honor the path they have always shown us in caring for this place for the generations to come.*"

11 | Academic Integrity

Collaboration is great, and I encourage you all to work together and learn from one another! If you work together with someone else please make sure that you let me know and note it on your assignment. However, cheating and plagiarism **will not** be tolerated. Plagiarism is defined as,

"Representing words, ideas, data, or materials of another person as one's own, the student's own previous work as if it were the student's own original work, or content derived directly from a generative artificial intelligence tool as if it were the student's own original work."

You should familiarize yourself with [UM's Student Code of Conduct](#).

12 | Late Drops & Incompletes


Late Drops:

The University's policy on drops after **45** days of instruction is very specific. Please refer to the Registrar's office for more details. There are five circumstances under which a late drop might be approved: registration errors, accident or illness, family emergency, change in work schedule, no assessment of performance in class after this deadline. There must be documented justification for one of these circumstances.

Incompletes:

Incompletes are only given at the discretion of the instructor. Guidelines for receiving an incomplete are listed in the catalog which includes having **a passing grade up to three weeks before the end of the semester** and being in attendance. "Negligence and indifference are not acceptable reasons." Also note that there may be financial aid implications.

13 | Weekly Schedule

Unit 1 Thinking like a level designer	Week 1 8/26-9/1	The Function of Level Design <i>The role of level design vs. game design</i>
	Week 2 9/2-9/8	Building Your Toolbox <i>Level design goals, paper prototyping, and metrics</i>
	Week 3 9/9-9/15	Planning Your Level <i>Modular level design, level structures, and playgrounds</i>
Unit 2 Core Concepts	Week 4 9/16-9/22	Designing Space, Place, and View <i>Spatial empathy, genius loci, and spatial size types</i>
	Week 5 9/23-9/29	Structural Geometry <i>Whiteboxing, Bang's Theory of Shapes, prospect & refuge</i>
	Week 6 9/30-10/6	Spatial Composition & Emotion <i>Arrivals, shade & shadow, verticality & height</i>
	Week 7 10/7-10/13	Guiding the Player (Part 1) <i>Developing a visual language, Lynch's 5 elements</i>
	Week 8 10/14-10/20	Guiding the Player (Part 2) <i>Breadcrumbing, the "nope" zone, and other navigational tools</i>
	Week 9 10/21-10/27	Rewards <i>Reward types, challenge, and catharsis</i>
	Week 10  10/28-11/3	Pacing <i>Flow, intensity, variety, time, gates, & bidirectional gameplay</i>
Unit 3 Combat & Multiplayer	Week 11 11/4-11/10	Combat (Part 1) <i>Vantage points, waves & pacing, enemy NPCs, flanking, and the combat bowl</i>
	Week 12 11/11-11/17	Combat (Part 2) <i>Cover & line of sight</i>
	Week 13 11/18-11/24	Multiplayer <i>Multiplayer maps, multiplayer combat, and designing for cooperative play</i>
Unit 4 Wrap up	Week 14 11/25-12/1	Thanksgiving Break! <i>Work on your final projects and eat some pie!</i>  
	Week 15 12/2-12/8	Ludic Sketches <i>NO CLASS THIS WEEK – work on your Ludic Sketches!</i>

14 | Other Useful Information

Cultural Leave Policy

Cultural or ceremonial leave allows excused absences for cultural, religious, and ceremonial purposes to meet the student's customs and traditions or to participate in related activities. To receive an authorized absence for a cultural, religious or ceremonial event the student or their advisor (proxy) must submit a formal written request to the instructor. This must include a brief description (with inclusive dates) of the cultural event or ceremony and the importance of the student's attendance or participation. Authorization for the absence is subject to approval by the instructor. Appeals may be made to the Chair, Dean or Provost. The excused absence or leave may not exceed five academic calendar days (not including weekends or holidays). Students remain responsible for completion or make-up of assignments as defined in the syllabus, at the discretion of the instructor.

Food & Housing Insecurity

Any student who faces challenges securing food or housing, and believes that this could affect their performance in this course, is urged to contact any or all of the following campus resources.

Food Pantry Program

UM offers a food pantry that students can access for emergency food. The pantry is open on Tuesdays from 12 to 5 PM and Fridays from 10 AM to 5 PM. The pantry is located in UC 119 (in the former ASUM Childcare offices). Pantry staff operate several satellite food cupboards on campus (including one at Missoula College). For more information about this program, email umpantry@mso.umt.edu, visit the [UM Food Pantry website](#) or contact the pantry on social media (@pantryUm on twitter, @UMPantry on Facebook, um_pantry on Instagram).

ASUM Renter Center

The Renter Center has compiled a [list of resources](https://medium.com/griz-renter-blog) (<https://medium.com/griz-renter-blog>) for UM students at risk of homelessness or food insecurity. Students can schedule an appointment with Renter Center staff to discuss their situation and receive information, support, and referrals.

TRiO Student Support Services

TRiO serves UM students who are low-income, first-generation college students or have documented disabilities. TRiO services include a textbook loan program, scholarships and financial aid help, academic advising, coaching, and tutoring. Students can [check their eligibility](http://www.umt.edu/trioss/apply.php) (www.umt.edu/trioss/apply.php) for TRiO services online. If you are comfortable, please come see members of the teaching team. We will do our best to help connect you with additional resources.

The Writing and Public Speaking Center

[The Writing and Public Speaking Center](#) provides one-on-one tutoring to students at all levels and at any time in the writing process.

The Math Learning Center

[The Math Learning Center](#) has in-person, drop-in tutoring to help students with homework and test preparation needs. Check their website for drop-in hours and location.

UM Information Technology

Get the technology, tools, and services you need, whether you are a student, faculty, staff, or someone partnering with the University of Montana. Visit the [UM IT webpage](#) for services and self-help articles, or contact the help desk directly by calling 406.243.HELP (4357) or emailing ithelpdesk@umontana.edu.