

Introduction to Game Development

CMI 3373 | Spring 2023
Dr. Bobby Schweizer (bobby.schweizer@ttu.edu)

Monday/Wednesday 3:30–4:50pm / MCOM 375
Collaboration Hours: Wed. 2–3:30 in Gaming Lab
or by appointment on Teams

Course Requirements and Expectations

This is a class about learning how videogames are made, who makes them, and how you can create them yourselves. It is assumed that this is the **first time** you have designed a game, written code, and used a game engine. (Though if you have experience, that's great too!) You will learn foundational concepts for game programming, principles used in design, and gain appreciation for the variety of roles people take in the game industry.

Please bookmark <http://wreckem.itch.io/> for up-to-date topics, assignments, and deadlines.

Required Course Software (Free)

P5.JS (web)
<https://p5js.org/editor/>

GB Studio 3.1 (Windows, MacOS, Linux)
<https://www.gbstudio.dev>

Required Course Texts

Our textbooks are available for free through the TTU Library and can be read in your browser or through an iOS or Android app.

Our primary book is Anna Anthropy and Naomi Clark's *A Game Design Vocabulary: Exploring the Foundational Principles Behind Good Game Design*.

You may be asked to spend up to \$20 for games and software. Accommodations can be made if you have any trouble accessing these games. Just send me a message or see me after class.

All readings and videos are linked on our wreckem.itch.io page.

Required Services

Please sign up for an itch.io account and join our class Teams channel.

Download or bookmark Microsoft Teams

Learning Objectives

- Recognize the affordances of videogames as an expressive medium
- Employ concepts from computer programming in the creation of games
- Assess the possibilities and limitations of different game making tools
- Develop a vocabulary for critiquing others' games
- Understand the demands of the game development process

Learning objectives are evaluated using classroom discussion, creative projects, and written reflections.

How to Do Well

To do well in this course, you must be engaged and active. Game development can be tough and the best way to succeed is to be *persistent*. You will get stuck. You will feel overwhelmed. But **this isn't a class about being a great programmer**—it's about understanding the basics so you can make cool stuff. I believe everybody can succeed!

But you must be willing to **ask for help**. I won't judge you for not understanding a concept. But, if you wait three weeks to ask a question, it will be harder for me to assist you and you'll have fallen behind.

In class, we will discuss concepts from development and design, learn new software tools, share work, and have opportunities to help one another. It is imperative that you spread your efforts in this class out through each week so that you don't get stuck on anything an hour before it is due.

Attendance

Attendance will not be taken because this is an upper-level course. You are responsible for your own success. And every student who has taken this course will tell you that being in-class is essential.

I am always happy to help those who come to class regularly but will not repeat missed instruction during lab hours. I reciprocate however much effort you put in.

Problem Solving and Asking for Help

Here's my general advice for **solving problems**: don't bang your head against an issue for more than 30 minutes (unless you're having fun with it).

1st try searching for the problem online

2nd try asking your classmates in Teams

3rd @me on Teams (sending me a link to your code is the best way for me to help you)

Not sure what to ask about? Copy-paste one of these and fill in the blank.

- One-on-one help: "Hey Dr. S — I didn't fully understand _____. Can I [make an appointment]/[drop-in lab hours] to go over it?"
- Willing to wait for a response: "@Dr.S my game crashes whenever the player hits an enemy, can you take a look at it? [link to your game's code online]"
- Throwing your hands up: "Nothing works and I don't know why, @Dr.S *EverythingOnFire.gif*"
- Looking for advice: "Hey @Dr.S I want to try to do _____ but I'm not sure where to start."

Plagiarism Guidelines for New Coders: You will inevitably be tempted to use code you find online. Broadly speaking you can use lines of code but not whole projects so long as you: cite it (we'll discuss how) and be able to explain how it works. Using it without citing your source is plagiarism. Using it without understanding how it works will make you more confused and will make it more difficult to modify and adapt to your needs. Unsure? Just ask me!

Assignments

P5 Practice Exercises	four x 5 pts.	Grading Scale: A: 180–200 pts B: 160–179 pts C: 140–159 pts D: 130–139 pts F: 129 and below
P5.play Micro-Game	55 pts.	
Game Boy Game	55 pts.	
Game Snacks *	ten x 4 pts. + 2 freebie weeks	
GIF Check-in**	ten x 3 pts. + 2 freebie weeks	
Extra Credit: Analysis	15 pts applied to exercises + projects	

* The description of Game Snacks is on our Itch.io page. They're pass/fail based on whether you met all the requirements: a "lesson" from the readings as the title, a relevant example from your own experience with a YouTube link, and a minimum of 250 words.

** GIF check-in points are earned by posting a GIF of your on-going work into our #work-in-progress channel each week. Pass/fail.

Late Work: I won't be accepting late work this semester unless you're experiencing hardship. If so, please send me a message so we can discuss.

Dropping A Course: It is the student's responsibility to drop a course that's not working out. Neither the instructor nor the academic advisor is responsible for initiating. Students can only drop six courses from all Texas state institutions, so transfer students should be especially careful of dropping courses at Tech. If you are unsure of course drop procedures, please consult your advisor. Note sure if it's for you? Come talk to me. Also, *if you choose to drop this class, please send me a message just to let me know.*

Technology Access

Software for this class should run on any PC or Mac built in the last few years. All software will be available in COMC 375 but I recommend using it on personal devices so you can work at home. If you are having difficulty running any of the software, please let me know as soon as possible.

Blackboard will be used for major class announcements. Our class **Itch.io website** contains the schedule and assignments. We will also be **Teams** to work together during the week. It is expected that everybody involved conduct themselves in a professional manner both in-class and online.

University Policies

ADA STATEMENT: Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

ACADEMIC INTEGRITY STATEMENT: Academic integrity is taking responsibility for one's own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University ("University") Quality Enhancement Plan, Academic Integrity Task Force, 2010]

RELIGIOUS HOLY DAY STATEMENT: "Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

DISCRIMINATION, HARASSMENT, AND SEXUAL VIOLENCE STATEMENT: Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other Title IX violations are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution, (806)-742-SAFE (7233) or file a report online at titleix.ttu.edu/students. Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are:

- TTU Student Counseling Center, 806-742-3674, <https://www.depts.ttu.edu/scc/> (Provides confidential support on campus.)
- TTU Student Counseling Center 24-hour Helpline, 806-742-5555, (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.)

- Voice of Hope Lubbock Rape Crisis Center, 806-763-7273, voiceofhopelubbock.org (24-hour hotline that provides support for survivors of sexual violence.)
- The Risk, Intervention, Safety and Education (RISE) Office, 806-742-2110, rise.ttu.edu (Provides a range of resources and support options focused on prevention education and student wellness.)
- Texas Tech Police Department, 806-742-3931, <http://www.depts.ttu.edu/tpd/> (To report criminal activity that occurs on or near Texas Tech campus.)

CIVILITY IN THE CLASSROOM STATEMENT: Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student–student and student–faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission by rude, sarcastic, threatening, abusive or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the university ttu.edu/ethics/matadorchallenge/ethicalprinciples

LGBTQIA Support

Within the Center for Campus Life, the Office serves the Texas Tech community through facilitation and leadership of programming and advocacy efforts. This work is aimed at strengthening the lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) community and sustaining an inclusive campus that welcomes people of all sexual orientations, gender identities, and gender expressions.

Resources can be found at www.lgbtqia.ttu.edu, calling 806.742.5433, or visiting the Office of LGBTQIA in Student Union Building Room 201. I am also able to assist in connecting you with resources on campus related to sexual orientation and/or gender identity. *Come talk to me and let me help you find the resources that will help you thrive!*