



# Game Design

(AKA Platform Development)

CSC 352

# Course Aims

- Learn tools, techniques, and design patterns used by game developers, which also have wide applicability to other areas of computer science.
- Develop and understanding of the math and physics required for game design.
- Become familiar with the Unity3D game engine.
- Study case studies of game design, for both independent and larger, AAA titles.
- Design and develop a game.



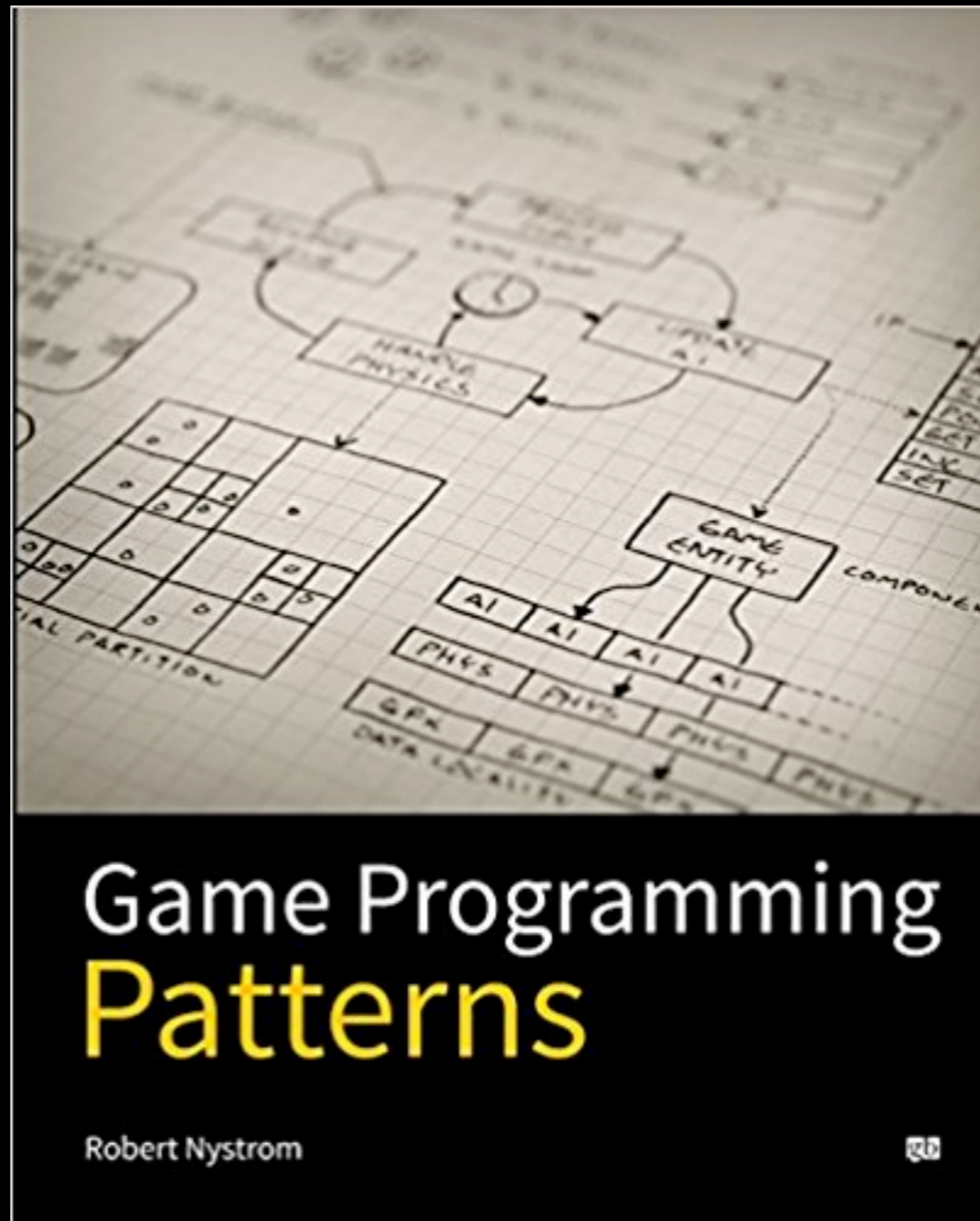
# Prerequisites



CSC 250 - Software Engineering (Formally CSC 313)



# Course Materials



[GameProgrammingPatterns.com](http://GameProgrammingPatterns.com)

# Course Policies



- Honor Code
- Accommodations
- Title IX

# Course Outline

Phase I: Programming concepts related to game design

C++ Coding

Game Loops

State Management

Handling Content

Phase II: Math, Physics, and Game Design

Some Linear Algebra and Trig

Some Newtonian Mechanics

Principles of Game Design

Phase III: Unity3D Game Engine

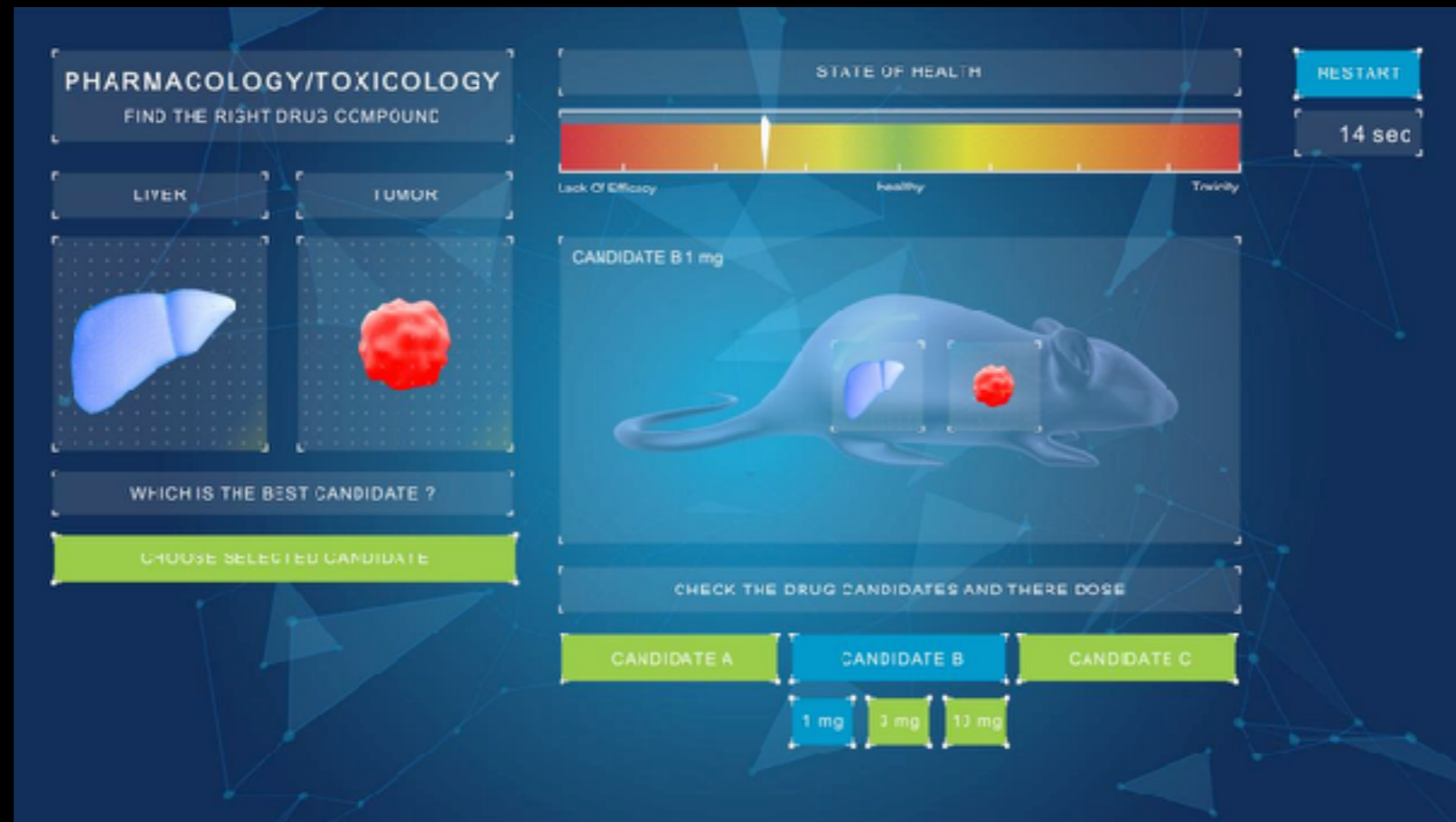
Unity3D Concepts

Personal Game Project





# Grading



- Phase 1 and 2 Programming Assignments: 35%
- Game Design Project: 45%
- Phase 1 and 2 Midterms: 20% (10% each)

# Assignment Schedule



<https://svu-falin.github.io/csc352/schedule.html>