



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: Advanced Gaming and Simulation Topics
Course Number: SGE221

Required Materials

Textbook(s): Video Game Level Design (ISBN# 978-1350015722)
Required Readings: None
Additional Materials: None

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

Week	Chapter/Topic/Lab
Week 1	Particle System - Part-One (Grenade) and Introduction Chapter (pages viii - xiii) <ul style="list-style-type: none"> • Start Here Page content, Introduction Chapter, and Week 1 materials folder • Quiz-1 • Grenade Lab • Paper - Stormwind
Week 2	Particle System - Part-Two (Lightning) and Chapter-1 (Research and Preproduction) & Island Project Setup <ul style="list-style-type: none"> • Chapter 1 and Contents of the Materials Folder • Lab - Lightning • Quiz, Chapter 1
Week 3	Start Ai Content and Chapter-2 (Principles of Level Design) <ul style="list-style-type: none"> • Contents of the Materials Folder • Vector Quiz • Quiz, Chapter-2 • Lab - Vector Spiders • Lab - Path Screenshot
Week 4	SLERP - (Ai) <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - SLERP-a-DERP • Design Your Own Level - 1
Week 5	Waypoints (Ai) and Chapter-3 Contraints, Player Flow and Objectives <ul style="list-style-type: none"> • Chapter 3 & Contents of the Materials Folder

Week	Chapter/Topic/Lab
	<ul style="list-style-type: none"> • Lab - Waypoints • Quiz, Chapter-3
Week 6	More about Waypoints! Also Chapter-4 Player Motivation <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - Waypoints-2 • Quiz, Chapter-4
Week 7	Start Mid-Term Project! <ul style="list-style-type: none"> • Contents of the Materials Folder • Begin Midterm Project
Week 8	Finish/Submit Midterm Project <ul style="list-style-type: none"> • Contents of the Materials Folder • Mid-Term Project • Build Your Own Level – 2
Week 9	The A-Star Algorithm and Chapter-5 The Anatomy of Level Design <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - A-Star • Quiz, Chapter-5 • Start 3D Terrain Level
Week 10	NavMesh Basics and Chapter-6, The Process of Level Design <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - NavMesh Basics • Chapter-6 Quiz
Week 11	NavMesh Agents and Chapter-7 Modular Level Design and Environmental Art <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - NavMesh Agents • Quiz, Chapter-7
Week 12	Zombie-Warehouse Chase, Chapter-8 Designing Nonplayer Behaviors and Encounters <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - Zombie Chase • Paper - Chapter-8 • Island Map Screenies
Week 13	Using Different Sized Agents <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - Nav Agents
Week 14	Making Money in Mobile <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - Crowd Ai
Week 15	Crowd Intelligence, Part-2 <ul style="list-style-type: none"> • Contents of the Materials Folder • Lab - Better Crowd Behavior • Lab - 3D Terrain and Paper Dropbox
Week 16	Final Exam Projects <ul style="list-style-type: none"> • Contents of the Materials Folder • Final Exam Dropbox • Terrain Map