

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

GAME 250 Game Mechanics and Dynamics

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**CANINO SCHOOL OF ENGINEERING TECHNOLOGY
DECISION SYSTEMS
FALL 2018**

- A. **TITLE:** Game Mechanics and Dynamics
- B. **COURSE NUMBER:** GAME 250
- C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 3
 # Lecture Hours: 2 per week
 # Lab Hours: per week
 Other: (1) two-hour recitation per week

Course Length: 15 Weeks

D. **WRITING INTENSIVE COURSE:** No

E. **GER CATEGORY:**

F. **SEMESTER(S) OFFERED:** _Spring

G. **COURSE DESCRIPTION:**

Students learn about the design process and project management including consumer expectations, marketing requirements and budget limitations.

H. **PRE-REQUISITES/CO-REQUISITES:**

- a. Pre-requisite(s): GAME 210
 b. Co-requisite(s):
 c. Pre- or co-requisite(s):

I. **STUDENT LEARNING OUTCOMES:**

II. <u>Course Student Learning Outcome</u> <u>[SLO]</u>	<u>PSLO</u>	<u>GER</u>	<u>ISLO</u>
a. Develop game projects using professional gaming software.	PSLO 8 Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.		5
b. Demonstrate proper design process procedures.	PSLO 6 Use the design process: Concept, Design, Prototype, Production, Testing and Revision to evaluate, and implement strategies to find a solution to a problem.		5
c. Demonstrate proper testing and troubleshooting techniques.	PSLO 4 Recognize the underlying principles guiding the relevant visual, audio, interactive, and narrative aesthetics of an animation or a game		2 [IA]
d. Examine Current trends in game design	PSLO 5 Synthesize trends, theories, movements and advancements in technology in the development of new ideas.		2 [IA]
e. Apply gaming principles of narrative, dynamics and mechanics to a final project.	PSLO 8 Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.		5

ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA], Inquiry & Analysis [IA], Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit./Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

J. **APPLIED LEARNING COMPONENT:** Yes ___ X ___ No _____

K. % **TEXTS:**
Game Development Essentials: Gameplay Mechanics by Troy Dunaway and Jeanine Novak,
ISBN-13: 978-1418052690 ISBN-10: 1418052698

L. % **REFERENCES:**

M. % **EQUIPMENT:**

L. % PC and Macintosh Computer Lab with Microsoft Office, Unity and Adobe Creative Suite installed.

M. % **GRADING METHOD:** A-F

O. % **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

- Projects as Assigned
- Final Project
- Exams
- Paper
- Tutorials
- Progress
- Participation

P. **DETAILED COURSE OUTLINE:**

1. Introduction and Syllabus, Ethics, Plagiarism and Copyright
2. The Early Stages of the Design Process
3. Implementation
4. Features and Complexity
5. Phases of Development
 - a. Consumer Expectations
 - b. Marketing Requirements
 - c. Budget Limitations
6. Mechanics

7. Dynamics
8. Aesthetics
9. Research Methods
10. Vertical Slice
11. Testing
12. Flow and Game Balance
13. Implementation of Scope
14. Toys, and Puzzle Games
15. Final Project Presentations

Q. LABORATORY OUTLINE:
None