



**Course Information**

<b>Course Title</b>	Game & Simulation Group Project (Capstone)
<b>Course Prefix, Num. and Title</b>	GAME 2359 – Game & Simulation Group Project (Capstone)
<b>Division</b>	Technology & Business
<b>Department</b>	Computer Science
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	Creation of a game and/or simulation project utilizing a team approach. Includes the integration of design, art, audio, programming, quality assurance and testing.
<b>Pre-Requisites</b>	Completion of 30 hours in the degree and ITSE 2370, ARTV 2301, GAME 1309
<b>Co-Requisites</b>	None

**Semester Credit Hours**

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	3:2:2
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	3
<b>Lab/Other Hours Breakdown: Lab Hours</b>	2
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	0
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	0
<b>Other Hours Breakdown</b>	0

**Approval Signatures**

<b>Title</b>	<b>Signature</b>	<b>Date</b>
<b>Prepared by:</b>		
<b>Department Head:</b>		
<b>Division Chair:</b>		
<b>Dean/VPI:</b>		
<b>Approved by CIR:</b>		

## Additional Course Information

**Topical Outline:** Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Introduction to Game Testing

Software Quality

Test Phases

The Game Testing Process

Types of Testing (Combinatorial, Test Flow, Clean room)

Test Trees

This will be a group project class.

Students will be assembled into teams that will develop a simple game concept and game development

Skills that should be used include:

1. Languages: C#, C++, or Java
2. Game Graphics: Photoshop or Maya
3. Game Engine: Unity or Android
4. Animation Programming: OpenGL or OpenGL ES

### Course Learning Outcomes:

**Learning Outcomes – Upon successful completion of this course, students will:**

Develop a complete game and/or simulation project working as a member of a team

**Methods of Assessment:**

All outcomes will be assessed by one or more of the following:

Programming Projects

Tests and Quizzes

Final Exam

### Required text(s), optional text(s) and/or materials to be supplied by the student:

- Game Testing All in one, 2nd Edition By Charles Schultz from Mercury Learning ISBN: 978-1-9364201-6-2
- USB Flash Drive
- High-speed Internet Connection

### Suggested Course Maximum:

16

### List any specific or physical requirements beyond a typical classroom required to teach the course.

- Computer with an Graphic Card supporting Open GL 4.1 or later for each student
- Eclipse C++ Ide for each student
- Eclipse Java with Android SDK installed for each student
- Unity Game Engine for each student
- Adobe Photoshop CS 5.5 or later for each student
- Autodesk May 2012 or later for each student

**Course Requirements/Grading System:** Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Course Requirements:

Version: 3/20/2019

Labs: 20-40%

Tests and Quizzes: 20-40%

Projects: 20-40%

Final Exam: 20-40%

Attendance & Participation: 0-20%

Grading System:

100-90 = A

89-80 = B

79-70 = C

69-60 = D

and below = F

### Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
  - Critical Thinking
  - Communication
  - Empirical & Quantitative Skills
  - Teamwork
  - Social Responsibility
  - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist