Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title - Game & Simulation Group Project (Capstone)

Course Prefix and Number - Game 2359
Department – Computer Science                           Division – Technology & Business
Course Type: (check one)                                  
☐ Academic General Education Course (from ACGM – but not in WCJC Core)  
☐ Academic WCJC Core Course                               
☒ WECM course (This course is a Special Topics or Unique Needs Course:  Y ☐ or ☒)

Semester Credit Hours #: Lecture Hours #: Lab/Other Hours #:  3:2:2

Equeted Pay hours for course - 3

Course Catalog Description - Creation of a game and/or simulation project utilizing a team approach. Includes the integration of design, art, audio, programming, quality assurance and testing.

Prerequisites/Co-requisites: Completion of 30 hours in the degree and ITSE 2370, ARTV 2301, GAME 1309

Prepared by: Donna Schilling     Date: 7-8-2015
Reviewed by Department Head: Donna Schilling    Date: 7-8-2015
Accuracy verified by Division Chair: David Kucera         Date: 8/12/15
Approved by Dean or Vice President of Instruction: Leigh Ann Collins  Date: 3-4-16

List Lab/ Other Hours
Lab Hours 2
Clinical Hours 0
Practicum Hours 0
Other (list) 0
I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, 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

II. Course Learning Outcomes

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Methods of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon successful completion of this course, students will:</td>
<td>All outcomes will be assessed by one or more of the following:</td>
</tr>
<tr>
<td>Develop a complete game and/or simulation project working as a member of a team</td>
<td>Programming Projects</td>
</tr>
<tr>
<td></td>
<td>Tests and Quizzes</td>
</tr>
<tr>
<td></td>
<td>Final Exam</td>
</tr>
</tbody>
</table>

III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

- USB Flash Drive
- High-speed Internet Connection

IV. Suggested Course Maximum - 16

V. List any specific spatial 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
VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Grading System –</th>
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</thead>
<tbody>
<tr>
<td>Labs</td>
<td>20-40%</td>
</tr>
<tr>
<td>Tests and Quizzes</td>
<td>20-40%</td>
</tr>
<tr>
<td>Projects</td>
<td>20-40%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20-40%</td>
</tr>
<tr>
<td>Attendance &amp; Participation</td>
<td>0-20%</td>
</tr>
</tbody>
</table>

VII. Curriculum Checklist

☐ - Academic General Education Course (from ACGM – but not in WCJC Core)
   No additional documentation needed

☐ - Academic WCJC Core Course
   Attach the Core Curriculum Checklist, including the following:
   • Basic Intellectual Competencies
   • Perspectives
   • Exemplary Educational Objectives

☒ - WECM Courses
   If needed, revise the Program SCANS Matrix & Competencies Checklist.