COLEMAN UNIVERSITY

San Diego CA

Course Syllabus

COM233: Level Design I

COURSE DESCRIPTION

This course introduces the student to the Unity Game Engine. Topics include: incorporating terrains and externally produced 3D models, utilizing a first person character, scripting and animation, particle systems, sound, lighting, shadows, and more. It takes a practical approach, enabling the student to rapidly use the Unity Game Engine to develop games.

GENERAL COURSE INFORMATION

Number of Units / Weeks	4 / 10
# Hours Lec / # Hours Lab / # Homework	30 / 20 / 60
Prerequisite(s)	COM 103 and DSN 140
Course Developer(s)	John J. Ramos, MBA
Date Approved / Last Review	May 2011 / August 2014

LEARNING OUTCOMES

Upon successful completion of the course, students will be able to:

- Utilize the Unity Game Engine to rapidly develop games
- Utilize sound, lighting, shadows, and particle systems to add realism to their games
- Incorporate terrains and externally produced 3D models
- Create professional, easy-to-navigate menus for games
- Combine scripting and animation to create dynamic interactive game elements

Instructional Methods Employed in this Course

A number of instructional/learning methods are employed in this course, including the following:

- Lecture and reading assignments
- Hands-on exercises and labs
- Practical application of theory and skills in authentic design/programming projects
- Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course

Textbook

Goldstone, W. (2009). Unity game development essentials. Birmingham, England: Packt Pub.

Other Materials

Coleman College. The College Writer's Guide. San Diego: Coleman College, 2009.

Microsoft Visual Studio
http://www.microsoft.com/visualstudio/en-us/
Retrieved April 7, 2010

Unity Game Engine

Web Site Readings

These are typically additional items of interest to students of a general nature pertaining to the topics of the course. They will be MLA formatted also.

If there are no specific items, please use the line below

TBD

COURSE OUTLINE

WEEK	***TOPIC***	***READING***	***PROJECT ASSIGNED***
1	3D Concepts Unity Concepts Environments	Chapter 1 & 2	**Read:** Unity Ch.1-2 (41 pages 4.1 hours **Discussion Questions:** Chapters 1 & 2 30 Questions: 2 hours **Evaluation:** graded, 2 points **Project 1:** Island Scenario 4 hours **Evaluation:** graded, 3 points
2	Player Characters	Chapter 3	**Read:** Unity Ch. 3 (32 pages 3.2 hours **Discussion Questions:** Chapter 3 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 2:** Player Character 3 hours **Evaluation:** graded, 3 points
3	Interactions	Chapter 4	**Read:** Unity Ch.4 (27 pages 2.7 hours) **Discussion Questions:** Chapter 4 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 3:** Detecting Interactions 5 hours **Evaluation:** graded, 3 points

WEEK	***TOPIC***	***READING***	***PROJECT ASSIGNED***
4	Prefabs, Collection and HUD	Chapter 5	**Read:** Unity Ch.5 (24 pages 2.4 hours) **Discussion Questions:** Chapter 5 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 4:** Triggers 4 hours **Evaluation:** graded, 3 points
5	Instantiation and Rigid Bodies	Chapter 6 **MID-TERM**	**Read:** Unity Ch.6 (33 pages 3.3 hours) **Discussion Questions:** Chapter 6 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 5:** Rigid Bodies 5 hours **Evaluation:** graded, 3 points **Mid-Term**
6	Particle Systems	Chapter 7	**Read:** Unity Ch.7 (20 pages 2 hours) **Discussion Questions:** Chapter 7 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 6:** Particle System 3 hours **Evaluation:** graded, 3 points
7	Menu Design	Chapter 8	**Read:** Unity Ch.8 (24 pages 2.4 hours) **Discussion Questions:** Chapter 8 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 7:** Menus 4 hours **Evaluation:** graded, 3 points

WEEK	*TOPIC*	*READING*	*PROJECT ASSIGNED*
8	Finishing Touches	Chapter 9	**Read:** Unity Ch.9 (23 pages 2.3 hours) **Discussion Questions:** Chapter 6 15 Questions: 1 hour **Evaluation:** graded, 1point **Project 8:** Island Game 5 hours **Evaluation:** graded, 3 points
9	Building and Sharing Testing and Further Studying	Chapter 10 & 11	**Read:** Unity Ch.10-11 (28 pages 2.8 hours) **Discussion Questions:** Chapter 6 30 Questions: 2 hours **Evaluation:** graded, 2points **Final Project,** 12 hours **Evaluation:** graded, 35 points
10			**Final Exam**

Breakdown Hours

25.2	Total hours of reading required
11	Total hours of chapter/discussion questions
25	Total project hours (45 hours – 20 lab hours)
61.2	Total hours of out-of-class activities

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0
60 or above	CR	0
59 or below	NC	0
N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend

CR = Credit	NC = No Credit
I = Incomplete	W = Course Withdrawal
AU = Audit	TR = Transfer Credit
WV = Waiver	

ACADEMIC ACCOMMODATION / ADJUSTMENT POLICY:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.