COURSE SYLLABUS
DSN353: Level Design

Course Description
This course is to focus the skill set by taking a step by step through the process of planning, construction, and refining and original level that has been designed for this course. This course will cover the unique learning experience by providing a design experience focusing utilizing the industry standard Unreal 3 Engine/Unreal Development Kit. After creating a concept for the game, the program will work through the blueprint, blocking in, building, lighting, scripting, and polishing of a game level.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	30/20/60
Prerequisite(s)	DSN233, DSN263
Co-requisites (s)	None
Course Developer(s)	Travis Vasquez, M.S.
Date Approved / Last Review	June 2011 / May 2015

Learning Outcomes
Upon successful completion of the course, students will be able to:
- Identify the Work Flow process
- Understand project & file management
- Understand the purpose of BSP and CSG Brushes
- Understand the use of Materials and Mapping systems
- Utilize the Kismet and Matinee editor
- Understand and utilize lighting
- Understand the use of Particle Systems
- Understand the primary purpose of Unreal Script

Instructional Methods Employed in this Course
- Work in Computer Graphics with UDK, properly utilizing materials, lighting, and Static meshes, Kismet, and Matinee
- Utilize Unreal Script in the UDK framework
- Apply the basic techniques and concepts to any software package to accomplish your Computer Graphics needs
- Gain confidence in the understanding of concept to completion
- Ability to understand the level design game flow process and why it’s important

Information Resources for this Course

Textbook

Alan Thron. UDK Game Development. Boston, MA: Course Technology, 2012.
ISBN: 978-1-4354-6018-9

Travis Castillo, J. N. (2008). Game Development Essentials Game Level Design. Clifton Park, NY: Delmar Cengage Learning.
ISBN: 978-1-4018-7864-1

Other Materials

Autodesk 3DS Max
Adobe Photoshop
Adobe Flash

Web Site Readings

http://udn.epicgames.com/Three/UnrealScriptReference.html
http://udn.epicgames.com/Three/UnrealFrontend.html
http://udn.epicgames.com/Three/GameplayProgrammingHome.html
http://udn.epicgames.com/Three/DLLBind.html
http://udn.epicgames.com/Three/LocalizedTextFiles.html
http://udn.epicgames.com/Three/KeyBinds.html

Table/Topics & Assignments

Types of Assignments:

Lecture -
Considered Lecture Hours

Classroom Discussion -

Considered Lecture Hours

In Class Critique -

Considered Lecture Hours

Delivering Oral Presentations -

Considered Lecture Hours

In Class (IC) Exercise -

Considered Lecture Hours

Reading -

Considered Homework (HW), work done outside of class

WebClass lesson (non-online courses) -

Considered Homework (HW), work done outside of class

Lab Work -

Considered Lab Hours

Quiz, Midterm or Final -
Considered Lecture Hours

Week 1						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 1A	Intro to Unreal Development Kit	2	--	--	--	
LEC 1B	A tour of the UDK	1	--	--	--	
IC EX 1A	Chapter One Q's	--	--	--	--	
LAB 1A	Project 1: Building the BSP brush (pp. 51-113)	--	2	--	40	Week 2
HW 1A	Read: UDK Ch. 7-8 and Game Level Ch. 7 (134 pages) Evaluated by HW 1B	--	--	4	--	
HW 1B	Chapter Review Q's: Game Level, 4 questions	--	--	2	10	Week 2
HW 1C	Complete Project 1	--	--	5	--	Week 2
HW 1D	Final Project: The Nexus	--	--	40	250	Week 10
Total Week 1		3	2	49	300	

Week 2						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 2A	UDK Fundamentals	2	--	--	--	
EXAM 2A	Quiz #1	.25	--	--	20	Week 2
IC EX 2A	Chapter Two Q's	.75	--	--	--	
LAB 2A	Project 2: Creating a CSG environment (pp. 237-251)	--	2	--	40	Week 3
HW 2A	Read: UDK Ch. 3 and Game Level Ch. 3 (107 pages) Evaluated by HW 2B	--	--	2	--	
HW 2B	Chapter Review Q's: Game Level 3 questions	--	--	1.5	10	Week 3
HW 2C	Complete Project 2	--	--	4	--	Week 3
Total Week 2		3	2	7.5	80	

Week 3						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 3A	BSP Brushes, The Builder Brush, and CSG	1	--	--	--	
LEC 3B	Materials, Textures, and UV Mapping	1	--	--	--	
EXAM 3A	Quiz #2	.25	--	--	20	Week 3
IC EX 3A	Chapter Three Q's	.75	--	--	--	
LAB 3A	Project 3: Materials and mapping (pp. 267-303)	--	2	--	40	Week 4
HW 3A	Read: UDK CH 4-5 and Game Level Ch. 4 (132 pages) Evaluated by HW 3B	--	--	4	--	
HW 3B	Chapter Review Q's: Game Level 3 questions	--	--	1.5	10	Week 4
HW 3C	Complete Project 3	--	--	2	--	Week 4
Total Week 3		3	2	7.5	70	
Week 4						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 4A	Static Mesh Actors	2	--	--	--	
EXAM 4A	Quiz #3	.25	--	--	20	Week 4
IC EX 4A	Chapter Four Q's	.75	--	--		
LAB 4A	Project 4: Bridge between two islands (pp. 319-349)	--	2	--	40	Week 5
HW 4A	Read: UDK CH 6 and Game Level Ch. 6 (78 pages) Evaluated by HW 4B	--	--	1.5	--	
HW 4B	Chapter Review Q's: Game Level 3 questions	--	--	1.5	10	Week 5
HW 4C	Complete Project 4	--	--	6	--	Week 5
Total Week 4		3	2	9	70	
Week 5						
		LEC	**LAB**	**HW**	**Point**	

Type	Topic/Description	Hours	Hours	Hours	Value	Due
LEC 5A	Music and Sound	1	--	--	--	
LEC 5B	Lighting	1	--	--		
EXAM 5A	Midterm Exam	.5	--	--	100	Week 5
IC EX 5A	Chapter Five Q's	.5	--	--	--	
LAB 5A	Project 5: adding audio to the bridge level (pp. 356-393)	--	2	--	40	Week 6
HW 5A	Read: UDK CH 7-8 and Game Level Ch. 7 (134 pages) Evaluated by HW 5B	--	--	4	--	
HW 5B	Chapter Review Q's: Game Level 4 questions	--	--	2	10	Week 6
HW 5C	Complete Project 5	--	--	2	--	Week 6
Total Week 5		3	2	8	150	

Week 6

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 6A	Kismet and Matinee	2	--	--	--	
EXAM 6A	Quiz #4	.25	--	--	20	Week 6
IC EX 6A	Chapter Six Q's	.75	--	--	--	
LAB 6A	Project 6: Lighting cube park (pp. 422-450)	--	2	--	40	Week 7
HW 6A	Read: UDK Ch. 9 (83 pages) Evaluated by HW 6B	--	--	3	--	?
HW 6B	Complete Project 6	--	--	2	--	Week 7
Total Week 6		3	2	5	60	

Week 7

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	User Interface	1	--	--	--	
LEC 7B	Particle Systems	1.25	--	--	--	
IC EX 7A	Chapter Seven Q's	.75	--	--	--	
LAB 7A	Project 7: Using Kismet to show a	--	2	--	40	Week 8

	Welcome Message (pp. 468-507)					
HW 7A	Read: UDK Ch. 10-11 (94 pages) Evaluated by HW 7B	--	--	1.5	--	
HW 7B	Complete Project 7	--	--	2	--	Week 8
Total Week 7		3	2	3.5	40	

Week 8

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Scripting with UnrealScript	2.25	--	--	--	
IC EX 8A	Chapter Eight Q's	.75	--	--	--	
LAB 8A	Project 8: Creating a User Interface (pp. 514-549)	--	2	--	40	Week 9
HW 8A	Read: UDK Ch. 12 (59 pages) Evaluated by HW 8B	--	--	1	--	
HW 8B	Complete Project 8	--	--	3	--	Week 9
Total Week 8		3	2	4	40	

Week 9

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Designing and Planning: The Nexus	2	--	--	--	
EXAM 9A	Quiz #5	.25	--	--	20	Week 9
IC EX 9A	Chapter Nine Q's	.75	--	--		
LAB 9A	Project 9: balloon time (pp. 563-578)	--	2	--	40	Week 10
HW 9A	Read: UDK Ch. 13-14 & Game Level CH 8 (51 pages) Evaluated by HW 9B	--	--	1	--	Week 10
HW 9B	Chapter Review Q's: Game Level 3 questions	--	--	1.5	10	Week 10
HW 9C	Complete Project 9	--	--	2	--	Week 10
Total Week 9		3	2	4.5	70	

Week 10

		LEC	LAB	HW	Point	

Type	Topic/Description	Hours	Hours	Hours	Value	Due
EXAM 10A	Final Exam	3	2	--	250	Week 10
Total Week 10		3	2	0	250	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1	Intro to Unreal Development Kit A tour of the UDK	3	2	49
2	UDK Fundamentals Quiz #1	3	2	7.5
3	BSP Brushes, The Builder Brush, and CSG Materials, Textures, and UV Mapping Quiz #2	3	2	7.5
4	Static Mesh Actors Quiz #3	3	2	9
5	Music and Sound Lighting Midterm Exam	3	2	8
6	Kismet and Matinee Quiz #4	3	2	5
7	User Interface Particle Systems	3	2	3.5
8	Scripting with UnrealScript	3	2	4
9	Designing and Planning: The Nexus Quiz #5	3	2	4.5
10	Final Exam	3	2	
I	Total	30	20	98

Table/Point Breakdown

Week	Assignment	Possible Points	Percent of Grade
1	IC EX 1A, Chapter One Q's	10	10%
1	LAB 1A, Project 1	40	40%
1	HW 1D, Final Project: The Nexus	250	250%
2	EXAM 2A, Quiz #1	20	20%
2	IC EX 2A, Chapter Two Q's	10	10%
2	LAB 2A, Project 2	40	40%
3	EXAM 3A, Quiz #2	20	20%
3	IC EX 3A, Chapter Three Q's	10	10%
3	LAB 3A, Project 3	40	40%
4	EXAM 4A, Quiz #3	20	20%
4	IC EX 4A, Chapter Four Q's	10	10%
4	LAB 4A, Project 4	40	40%
5	EXAM 5A, Midterm Exam	100	100%

	IC EX 5A, Chapter Five Q's	10	10%
	LAB 5A, Project 5	40	40%
6	EXAM 6A, Quiz #4	20	20%
	IC EX 6A, Chapter Six Q's	10	10%
	LAB 6A, Project 6	40	40%
7	IC EX 7A, Chapter Seven Q's	10	10%
	LAB 7A, Project 7	40	40%
8	IC EX 8A, Chapter Eight Q's	10	10%
	LAB 8A, Project 8	40	40%
9	EXAM 9A, Quiz #5	20	20%
	IC EX 9A, Chapter Nine Q's	10	10%
	LAB 9A, Project 9	40	40%
10	EXAM 10A, Final	100	100%
I	Total	1000	1000%

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:

Grading Structure

The following table lists the Coleman University grading structure. All grades listed will count as units attempted.

For each unit in which the student is enrolled, he or she will receive quality points as follows:

Letter Grade	Percentage	Grade Points
A	94% - 100%	4.00
A-	90% - 93%	3.67
B+	87% - 89%	3.33
B	84% - 86%	3.00
B-	80% - 83%	2.67
C+	77% - 79%	2.33
C	74% - 76%	2.00
C-	70% - 73%	1.67
D+	67% - 69%	1.33
D	64% - 66%	1.00
D-	60% - 63%	0.67
F	0% - 59%	0.00
I	N/A	0.00
W	N/A	0.00

CR	70% or above	0.00
NC	69% or below	0.00
AU	N/A	0.00
TR	N/A	0.00
WV	N/A	0.00

Note: I = Incomplete, W = Withdraw, CR = Credit, NC = No Credit, AU= Audit, TR= Transfer, WV= Course Waiver

Requirements

Assignments: All assignments (including projects, lab work, quizzes and exams) must be completed as scheduled. The following will apply to late assignments:

- 1-24 hours after due date = 20% off point value
- 25-48 hours after due date = 60% off point value
- 49+ hours after due date = No points given

If an assignment equals less than 5 points, no points will be given for late work. If there are extenuating circumstances, the student must submit a written explanation to the department Senior Instructor. Upon evaluation, points will be given according to the Senior Instructor's discretion.

Attendance: Classes begin and end as indicated in the published schedule. It is required that students be present at the beginning of each class session and stay until class is dismissed, including lab periods. Excessive tardiness, leaving early and/or absences (from either lecture or lab sessions) are causes for dismissal from the course. A student that arrives in class beyond 30 minutes late may be considered absent. A student that leaves over 30 minutes before the end of class may also be considered absent. Excused absences will be determined by the instructors and approved by the Dean of Academics & Director of Student Services. Students may be removed from the course(s) based on the following absence guidelines:

4 Unit Course – Allowed 2 absences per 10-week MOD (3rd absence may be excused by DOA & DOSS)

5 Unit Course – Allowed 2 absences per 5-week MOD (3rd absence may be excused by DOA & DOSS)

8 Unit Course – Allowed 5 absences per 10-week MOD (6th absence may be excused by DOA & DOSS)

Conduct: Students are expected to conduct themselves in a professional manner while on campus. Rules of conduct are outlined in the University Catalog and students are required to adhere to such policies. Students who are in violation of the Student Code of Conduct Policy can be suspended.

Coleman University Policy on Academic Dishonesty:

Academic dishonesty is cause for dismissal from Coleman University. Presenting another person's ideas, methods, course work, or test answers with the intention that they be taken as one's own is theft of a special kind. It defrauds the originator of the work, the institution, its graduates, its students, and its future students.
The student has full responsibility for the authenticity of all academic work and examinations submitted. A student who appears to have violated this policy must submit to a hearing with the reporting instructor and the associate dean. If it is determined that a violation occurred, the matter will be referred to an Officer of the University with recommendations for an appropriate penalty. The student may be dismissed, suspended, or given another penalty.

Coleman University employs the plagiarism software known as Turnitin. Students are expected to use this tool in an appropriate manner with the sole purpose to support their own academic endeavors at Coleman University. Turnitin account information cannot be shared with anyone. Contact your instructor if you have any questions about plagiarism related issues.

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, Ariana Marron, 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.