COLEMAN UNIVERSITY

San Diego, CA San Marcos, CA

COURSE SYLLABUS

DSN 273 INTRODUCTION TO DIGITAL SCULPTING

COURSE DESCRIPTION

This course is designed to introduce students to ZBrush. The student is introduced to the concepts required to create realistic and highly detailed 3D organic, mechanical and architectural models required for modern game art design. The student will learn the essential techniques and tools to quickly design concept, prototype and final pieces for rich game scenes and characters. This class is designed to stimulate the creative spirit of the student by exploring several creative methods used to produce high quality game components, as required by the industry.

GENERAL COURSE INFORMATION

Number of Credits/Units	4
Course Length in Weeks	10
# Hours Lecture	30
# Hours Laboratory	20
Prerequisites	DSN 253
Course Developer(s)	Daniel Savart, B.S.
Date Approved: Curriculum Development	October 2010

LEARNING OUTCOMES

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

- Apply the fundamentals of Zbrush4 techniques, such as HD 3D modeling, unwrapping, poly-paint (3D paint), 3D texturing, and multi-maps creation to set lighting and render complex 3D models.
- Master all the principal and essential techniques to show confidence in using Zbrush 4.
- Utilize the 3D skills learned to further enrich the student's game art portfolio.

LEARNING OBJECTIVES

To achieve the learning outcomes specified for this course, students will, upon successful completion of the course:

- Learn photorealistic digital sculpting
- Manage easily to UV unwrap models
- Develop high detail alpha textures for Characters, vehicles and architectural design.
- Master sculpting tools and 3D digital painting.
- Be able to pose Character for presentation.
- Master shading techniques using Matcap
- Learn HD light set up and quality render.

- Render quality turn around.
- Learn to use the free Zbrush plug ins.

Instructional Methods Employed in this Course

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

- Lecture and weekly reading assignments.
- Tutorial videos to help students.
- Workshop and practice in class/lab.
- Build on knowledge and practical experience to help student in understanding clearly the different techniques to achieve higher standards for the class requirement and for future game productions.

Information Resources for this Course

Textbook

Keller, E. (2011). Introducing ZBrush 4. Indianapolis, Indiana. Sybex. ISBN: 978-0470527641

Other Materials

PC/Mac drawing palette (ie:Bamboo pen from Wacom)
Needed at least 2 Human and animal anatomy books for reference.

Web Site Readings

ZBrush's Headquarters
www.pixologic.com

http://www.zbrushworkshops.com/

www.digitaltutors.com

COURSE OUTLINE

WEEK	***TOPIC***	***READING***	***PROJECT ASSIGNED***
1	Introducing Zbrush 4	Chapter 1	**Read:** ZBrush CH.1 (16 pages 1.6 hours) **Evidence:** Projects **Project:** Unwrapping 4 models 5 hours **Evaluation:** graded, 15 points
2	Facing Zbrush4 interface Hot keys to navigate	Chapter 2	**Read:** ZBrush Ch.2 (34 pages, 3.4 hours) **Evidence:** Projects **Project:** Human model 15 hours **Evaluation:** graded, 15 points
3	Painting with Pixols	Chapter 3	**Read:** ZBrush Ch.3 (53 pages, 5.3 hours) **Evidence:** Projects
4	Sculpting tool and techniques	Chapter 4	**Read:** ZBrush Ch.4 (63 pages, 6.3 hours) **Evidence:** Projects **Project:** Animal model 15 hours **Evaluation:** graded, 15 points
5	Digital sculpting	Chapter 5	**Read:** ZBrush Ch.5 (47 pages, 4.7 hours) **Evidence:** Projects **MID-TERM** **Evaluated:** graded, 15 points
6	Advance HD sculpting technique	Chapter 6	**Read:** ZBrush Ch.6 (35 pages, 3.5 hours) **Evidence:** Projects **Project:** Vehicle model 10 hours **Evaluation:** graded, 15 points
7	Color, textures and alpha	Chapter 7	**Read:** ZBrush Ch.7 (48 pages, 4.8 hours) **Evidence:** Projects
8	Rendering,Lighting and Materials	Chapter 8-9	**Read:** ZBrush Ch.8-9 (114 pages, 11.4 hours) **Evidence:** Projects
9	Zbrush with other applications Zbrush plug ins	Chapter 10	**Read:** ZBrush Ch.10 (26 pages, 2.6 hours) **Evidence:** Projects **Project:** Presentation Folder 10 hours **Evaluation:** graded, 10 points
10	Final portfolio presentation	Presentation folder	**FINAL** **Evaluated:** graded, 15 points

BREAKDOWN HOURS

43.6	Total hours of reading required
35	Total project hours (55 hours - 20 lab hours)
79	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.