THE AMERICAN ACADEMY OF ART

Syllabus for Beginning Environmental Creation fro 3D Artists, 3DA305

SPRING 2010

INSTRUCTOR NAME:	K. Latonia Baker
OFFICE HOURS & CONTACT INFORMATION:	Monday & Thursday 3:00pm – 8:00pm Phone: (312) 515-3565
CREDIT HOURS:	**5_ Semester Hours**
COURSE SCHEDULE:	Session III: Monday, Tuesday, Wednesday, Thursday 2:45pm – 5:15pm
PREREQUISITES:	Completion of EDS 303: Introduction to 3D Modeling and Animation.
COURSE DESCRIPTION:	In this intermediate level course students will be exposed to the creative process of researching, designing, planning and producing 3-D environments. The class will take students through the process of creating environments with 3-D Studio Max, starting with the analysis of reference photographs and determining real-world object dimensions, lighting senarios, and texturing effects. Students will learn how to spot visual cues that allow for quick and accurate determination of dimensions from these photographs, as well as how to build quick layout files for modeling, lighting, and texturing. General enviromental creation concepts will be introduced from showing various weather conditions to basic architectural and landscape design and modeling principles. Rendering techniques and compositing options with respect to materials and mapping in 3D will also be discussed.
SUGGESTED TEXTBOOK (S)	Ted Boardman. (2006) **3DS Max 8 Fundamentals,** Adobe Reader Paperback (ISBN-13: 978-0321-45511-6, $32.40) Jeremy Birn. (2006). **Digital Lighting and Rendering**, Indianapolis IN: New Riders Press, 2nd Edition Paperback (ISBN 0321316312, $50.00) Dennis Summers. (2004). **Texturing: Concepts and Techniques**, Hingham, MA: Charles River Media, Paperback (ISBN 1584503009, $54.95)
REQUIRED RESOURCES & SUPPLIES	There are no supplies required for this course. A limited number of DVDs and CDs are available to students as a part of their lab fees. It is recommended that students purchase a computer and a student license of 3D Studio Max to practice at home beyond class studio time.

LEARNING OBJECTIVES: **Upon completion of this course, the student should be able to do the following:**

1. Demonstrate an intermediate level understanding of 3D Studio Max commands and modifiers in relation to creating 3D environments when using standard modeling tools and procedure**.**
2. Acquire a solid understanding of modeling methods and procedures; including but not limited to the use of primitives, sub-d poly modeling, spline modeling, and skinning.
3. Obtain the ability to design and create a diverse series of models from underwater environments to architectural interiors and exteriors from plans and photos to game levels and fantasy environments.
4. Exhibit a proficient skill level for correctly creating and mapping textures for 3D environmental models.
5. Display a solid understanding basic architectural measurements and reading perspectives when viewing images for clues to replicate realistic environments in 3-dimension.
6. Display a proficient use and understanding of the rendering modes – such as (but not limited to) radiosity, and Mental Ray; that make mathematical calculations of reflection and refraction of light in order to produce realistic, superior quality 3D images and animations.
7. Show a continued use and development of lighting techniques and camera settings that will aid in the presentation of final project models and design concepts.

INSTRUCTIONAL METHODS: Tutorials may be given on a weekly basis and it is expected that you will do them prior to completing assignments. In addition to understanding the tutorials, in class demonstrations will be done once. Make up demos will only be repeated under extreme circumstanced. This course requires an investment of your time.

Critiques
Project critiques will be held on the deadline date for all of the assignments. Intermediate critiques may also be held to help firm up ideas on projects-in-progress. During critiques, each student will be responsible for explaining their work and should be prepared to answer questions pertaining to the creation process.

GRADING:

Weekly Assignments	35%
Midterm	Progress grade given based on assignments.
Final Project	65%

A+	98-100	A	94-97	A-	90-93
B+	87-89	B	84-86	B-	80-83
C+	77-79	C	74-76	C-	70-73
D+	67-69	D	64-66		
F	63 - 0				

Please note that the weekly assignments account for 35% of your total grade. If you do not turn them in, you will probably fail the course.

COURSE POLICIES: In accordance with the Faculty Handbook, scheduled 10-minute breaks are as follows: Session I: 10:05 a.m.-10:15 a.m. Session II: 1:30 p.m.-1:40 p.m. Session III: 4:20 p.m.-4:30 p.m.

Projects and deadlines will be given at the beginning of the semester in the project schedule and will be announced weekly. Deadlines are just that. There are no excuses for late work and your grade will be adjusted a full grade level below for two days. After which and F will be automatically given without warning for the assignment. You are not to work on late assignments in class after the due date. Late assignments must be completed outside of class time.

You may return phone calls only during scheduled class breaks.
You will be marked tardy/leaving early if you interrupt class sessions.

Do not download any sounds, games, screensavers, fonts, etc. on any of these machines.

In this class, the use of headphones (that you supply) will be allowed no earlier than the first half hour of the class session. All sounds must be inaudible to the class at all times.

LAB POLICIES: It is your responsibility to take care of the lab and lab equipment, during your class session. Abuses of the equipment and theft of any kind will not be tolerated. This includes downloading illegal and sexually explicit materials on the computers.

ATTENDANCE: Eight (8) is the maximum number of days you are allowed to miss per semester to receive a min. of a C- grade. A failing grade will be given for nine (9) or more absences (regardless of class grades) in a class that meets 4 times per week (3 absences in classes meeting 3 times per week). This course will move at a fast pace with the majority of work being done in class. It is strongly recommended that you attend every class, using absences only in the case of emergencies. ATTENDANCE will be taken at the BEGINNING and at the END of every class period. THREE TARDY instances or LEAVING EARLY will equal ONE ABSENCE.

SPECIAL NEEDS: Any student with special needs or difficulties in learning and/or in completing course requirements should notify the instructor immediately so that available, reasonable accommodations can be arranged. Documentation of the student's disability and how it impacts their participation must also be submitted to the Academic Dean.

MIDTERM ASSIGNMENT: There will be no midterm assignment for this course. The first four (4) assignments will be averaged for your midterm grade.

CAPSTONE PROJECT: A final project that demonstrates the course competencies will be given. It will be to create a scene of your choice with animation and environmental walkthroughs. A storyboard must be created for approval. You will be required to create the environment. You will be graded on all aspects including being able to design and execute the production of an intermediate level project, to texture mapping, to scene lighting, to modeling techniques. More information at a later date.

COURSE TOPICAL OUTLINE:
Provide a comprehensive list of the topics and/or skills to be covered in this course. Include a complete description of each topic and objective. ***LO-Learning Objectives (p. 2), PO-Program Objectives (p.7).***

ASSIGNMNENT	CLASS TOPICS & OBJECTIVES	READINGS & ASSIGNMENTS
	Understanding Perspective, architectural dimensions, and clues in reference photos. Review of basic modeling procedures in 3ds Max.	In Class assignment: Simple house modeling in 2 days. Intro to Mental Ray and Ambient Occlusion
1	**Residential Environment** from floor plans and images. Exterior and Interiors. Textures & Lighting for 3D Environments I	**Project 1:** Create house from floor plans and provide and exterior environment. Develop one interior space. Texture, light, and render in Mental Ray.
2	**Weather in Streetscape Environment** modeled from photos. Particle Systems and special effects (rain, snow, smoke, fog)	**Project 2:** Create a streetscape using photo examples. Texture, light, and render in Mental Ray. Portray different weather conditions: rain, snow, wind, etc.
3	**Fantasy Landscapes.** Creating narrative fantasy environments. Group Project.	**Project 3:** Create a fantasy environment of your design. Texture, light, and render in Mental Ray. Portray different landscape conditions such as water (above or below), ground vegetation (w/ or w/o trees), desert conditions, etc.
4	**Spiritual Environments.** Religious, Institutional, or Landscapes. Introduction to VRay.	**Project 4:** Create your definition of a spiritual or inspirational environment of your own design or of that from an image. Texture, light, and render in VRay.
5	**Contemporary Interiors**. Commercial or residential.	**Project 5:** Using digital images for context information. Texture, light, and render in VRay. Camera Animation and walkthroughs will be discussed.
6	**FINAL PROJECT.** Given three weeks prior to end of semester (LO 1-6) *(PO 1-3,5)* *Due: In class presentation on 12/16.*	**Scope of Work:** A final project that demonstrates the course competencies will be given. It will be to recreate an environment from a photograph using 3DS Max. A plan of action - statement of intent must be initially turned in for approval. More information will be given at a later date.

*** Program Outcomes for 3D Modeling and Animation**

1. Compose, develop and direct a scene to convey an idea.
2. Create a project concept and plan a production schedule.
3. Synthesize traditional art with 3-D composite and photo-editing skills.
4. Produce a demo reel focused on an industry specialization (not done in 1st or 2nd semester classes)
5. Visually and verbally articulate a familiarity with current and historic industry examples.
6. Work within a team on a deadline-driven project.