Course Syllabus

Course Number: **MAA 467 IS**
Course Title: **3D Modeling**

Class Meetings: Mondays & Wednesdays
Session/Year: Fall 2013

Instructor Name: Allen Tieri
Email Address: atieri@aii.edu
Instructor Availability Outside of Class: upon student request

<u>**3D Modeling**</u>

Course Description:
Through critical analysis, the student will apply advanced design principles to the solution of visual problems using elements of 3D design. The student will conceptualize 3D coordinate systems, construct 3D models, and apply them to geometric & NURB construction.

Course Length: 11 Weeks
Contact Hours: 66 Hours
          Lecture: 33 Hours
          Lab: 33 Hours
Credit Values: 4.0 Credits

Course Competencies:
Upon successful completion of the course, the student should be able to:

Conceptualize 3D coordinate systems and construct 3D models
- Identify elements of 3D software
- Conceptualize 3D coordinate systems
- Apply design principles to 3D space
- Build 3D Models to scale and proportion

Produce 3D objects using industry standard techniques
- Construct 3D models from reference
- Employ different types of geometric modeling
- Create models that are efficient in their use of geometry
- Determine appropriate amount of detail for given subject matter

Use computerized paint, texturing, modeling, and animation software to create images
- Utilize basic real time shaders introduction
- Apply maps to an object or scene
- Use image manipulation software to create tile able, color-limited maps
- Employ naming conventions to image files
- Develop production mapping workflow

Course Prerequisites: *Image Manipulation*

Textbook(s): *Poly-Modeling with 3ds Max: Thinking Outside of the Box*. Todd Daniele Focal Press. ISBN-10: 0240810929.

How to Cheat in 3ds Max 2009: Get Spectacular Results Fast. Michele Bousquet Publisher: Focal Press, ISBN-10: 0240810325

Technology Needed: Either Window computers running XP or Macintosh computers running MacOS10.x with an Internet connection, printers, software including image manipulation, 3D software, audio editing & virus utilities. Students should have removable hard or flash drive for personal file storage, and paper and drawing utensils.

Grading Scale:
All assignments must have clear criteria and objectives meet. All students shall be treated equitably. It will be that student's right to know his/her grade at any reasonable point that information is requested by that student. The criteria for determining a student's grade shall be as follows (on a percentage of total points basis):

A	100-93
A-	92-90
B+	89-87
B	86-83
B-	82-80
C+	79-77
C	76-73
C-	72-70
D+	69-67
D	66-65
F	64 or below

Process for Evaluation

Class Participation - is affected by attendance but also credited by contributing to in-class discussions, presentations, critiques and critiquing.

Assignments - included in this grading block are: homework assignments, lab-work, quizzes, group projects, and presentations.

Mid-Quarter Exam/Project & Final Exam/Project - Both Mid-Quarter and end of the quarter you will have either an exam, project or combination of both depending on what is appropriate

Student Evaluation/Grading Policies:

Details on all assignments, projects, quizzes and Exams will be provided in

related handouts and emailed.

Students are encouraged to consult the instructor on any/all explanation(s) of each assignment or project grade acquired.

If you are absent from a class, it is your responsibility to secure missing notes and/or assignments, and it is highly recommended that you develop a buddy system for contacting fellow classmates regarding missing material(s).

ALL projects will have a DEADLINE and PROJECTS MUST BE HANDED IN ON TIME OR YOU WILL RECEIVE NO CREDIT. LATE WORK WILL NOT BE ACCEPTED. You

cannot miss a deadline in the real world, and you will not be allowed to extend a deadline in class. Attaching any project to e-mail will not be accepted unless given permission by the instructor.

All work in this course must reflect your own efforts. While group collaboration is encouraged a student must clearly demonstrate personal competence and individual expression in all assignments.

Plagiarism Policy

Plagiarism is the act of obtaining credit for work by dishonest, deceptive, or fraudulent means. It is the act of taking ideas, words, images or specific substance of another and offering these as one's own.

The Tinley Park campus has a strict policy against plagiarism:

Academic Failure: the student may receive an "F" for the course for a second offense of plagiarism.

Suspension or Dismissal: the student may be suspended or dismissed from the college for a third offense against the plagiarism policy.

The use of copyrighted materials including the use of celebrities and athletes is strictly prohibited.

Disability Services

The Illinois Institute of Art-Tinley Park provides accommodations to qualified students with disabilities. The Disability Services office assists qualified students with disabilities in acquiring reasonable and appropriate accommodations and in supporting equal access to services, programs and activities at Illinois Institute of Art-Tinley Park.

Students who seek reasonable accommodations should notify the Disabilities Services Coordinator Dean Michael Saint Luke-Robinson of their specific limitations and, if known, their specific requested accommodations. Students will be asked to supply medical documentation of the need for accommodations. Classroom accommodations are not retroactive, but are effective only upon the student sharing approved accommodations with the instructor. Therefore, students are encouraged to request accommodations as early as feasible with the Disability Services Coordinator to allow for time to gather necessary documentation. If you have a concern or complaint in this regard, please contact the Dean of Student Affairs in Room 249 or call 708- 781-4031. Complaints will be handled in accordance with the school's Internal Grievance Procedure for Complaints of Discrimination and Harassment.

Equal Education Opportunity Policy

The Illinois Institute of Art-Tinley Park does not discriminate or harass on the basis of race, color, national origin, sex, gender, sexual orientation, disability, age, religion, genetic marker, or any other characteristic protected by state, local or federal law, in our programs and activities. The following person has been designated to handle inquiries and coordinate the school's compliance efforts regarding the non-discrimination policy: Dean of Student Affairs at 708.781.4031.

Tutoring:

Tutoring is available, free of charge, by calling 708-781-4080 or adewey@aii.edu to setup an appointment.

Attendance Policy:

Students are expected to attend class and to arrive on time. Late arrival disrupts

the classroom and being late to class also accrues time towards absence. Advance notice of an absence MUST BE provided to the instructor via email.

 The accumulated time of three (3) absences will result in reduction of your grade by a FULL letter grade. For example, an A- would degrade to a B-.

 Seven (7) or more absences will result in an Attendance Failure.

Additionally, registrar office personnel and/or academic advisors will be consulted for any questionable absences and/or absence-related issues.

 A student must sign his/her own name on the attendance sheet on each day present. If a student is absent and a student who is present signs in the absent student's name, both students will be penalized.

 Doors will close 15 minutes after the start of class where a quiz, student review or critique will immediately follow—doors will not open again until mid-class break point. During breaks you will be expected to manage your time and take advantage of food/ beverages and bathroom use. Students are to remain seated during class until the break or instructor dismissal. In case of an emergency you must notify your instructor before leaving the classroom.

In-Class Behavior:

You are expected to be respectful and courteous to your fellow students and instructor. The following behaviors will not be tolerated in the classroom and you may be asked to leave if you do not comply:

• Being disruptive

• Cell phone/ unauthorized personal device usage

• Sleeping

• Working on assignments for other classes.

During lab hours students must be working on the current class project and continuing their education through applied practice. (If a current class project is completed before the assignment's due date the student will use the class time to further develop the project.

Suggested Weekly Outline

Week 1:   Overview of 3D terminology, modeling. Exploring the interface. File Management. Primitive Objects and Extended Primitives. Converting objects. Create a scene for each primitive type using specified dimensions and transforms.

Week 2:   Modifying Editable Polys. Working on the sub-object level with extrusion and bevel. Intro to object Modifiers. Naming objects. Select by name dialog. Cloning objects. Normals. Modifiers: Gizmos.

Week 3:   Working with Splines. Editable vs. Non Editable splines and converting splines into editable splines. Lofting, lathing, extruding.

Week 4:   Compound ObjectsShapes and Editing Shapes. Shape sub-object components. Review for midterm exam

Week 5:   Written / Practical midterm exam. Hands-on competency exam

Week 6:   Polygonal Modeling techniques – continued (Character modeling). Techniques used in creation – extruding edges and polygons and faces, turning and cutting edges, dividing edges, pushing and pulling of vertices, etc.

Week 7:   Edge modeling techniques. More Shape editing. Sub-object parameters. Using cloned objects to model. Modeling utilizing variety, unity and appropriateness of techniques to include Soft Selection. Mesh smooth and NURMS.

Week 8:   Surface Tools and NURBS introduction.

Week 9:   Introduction to the Material Editor and Lights. Overview

Week 10:   Work on final project in class

Week 11:   Critiques of finals