COURSE SYLLABUS

Course Title	3D Visual Effects & Compositing
Course Number	MAA 336
Course Description	Effects animation takes students through the basics of making special effects. Students will be using such tools as particles, soft bodies, dynamics and expressions to create several scenes.
Prerequisite(s)	***3D Animation***
Corequisite(s)	N/A
Instructional Contact Hours/Credits	**Class Meetings: Mondays & Wednesdays** **Session/Year: Spring 2014** **Instructor Name: Allen Tieri** **Email Address: atieri@aii.edu** **Instructor Availability Outside of Class: upon request** **Course Length: 11 Weeks** **Contact Hours: 66 Hours** **Lecture: 33 Hours** **Lab: 33 Hours** **Credit Values: 4.0 Credits**

Quarter Credit Hour Definition

A quarter credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

(1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for 10-12 weeks, or the equivalent amount of work over a different amount of time; or

(2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

Learning Objectives

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

Research and develop effects

- Implement solvers and their settings
- Apply the principles of dynamics and physics
- Create soft body simulations with and without goals and springs
- Create rigid body simulations with active rigid bodies and particles, as well as use constraints
- Create realistic environmental phenomena
- Create effects such as fire, smoke, sparks, lasers, and explosions
- Apply principles of lighting to visual effects
- Demonstrate the use of painting with particles
- Add texture to particles

Differentiate rendering solutions

- Demonstrate an understanding of various renderers
- Demonstrate an understanding of render settings

Demonstrate understanding of scripting

- Demonstrate understanding of various particle generators
- Create particle objects and control them with dynamic fields

Describe and demonstrate major steps in the production of visual effects in film and video

- Demonstrate creative art direction to design process
- Discuss principles of lighting as it applies to compositing
- Discuss camera techniques in compositing
- Composite, rotoscope, matte integration, color correction, 2D animation, and other visual effects
- Differentiate and manipulate mattes
- Develop basic depth cues and use them to create the illusion of space in a 2D environment
- Apply image processing techniques and theory to live action and CGI

Operate within the constraints of a production pipeline

- Evaluate objectively technical and aesthetic characteristics of a project or process relative to specified design parameters
- Demonstrate successful scheduling of a project
- Apply compatible delivery system appropriate to various media

Utilize lighting in a 3D package

- Match CG lighting to live action images
- Demonstrate proficiency with various lighting algorithms and techniques

Instructional Materials and References

Textbook(s): *Digital Lighting & Rendering*. Jeremy Birn. Publisher: New Riders Press
ISBN: 0321316312 978-0321316318

Digital Compositing for Film and Video, (2nd ed.) Steve Wright. Publisher: Focal Press, ISBN: 024080760X.

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

Instructional Methods

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:

The evaluation process is described below and, like this syllabus, is subject to change by the instructor. Any changes will be announced in class. Students are encouraged to consult the instructor on any/all explanation(s) of each project/exam grade acquired.

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.

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.

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.

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.

Instructional Methods

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.

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.

Topical Outline

Week 1:	CGI and real world differences. Study real world examples of light and texture compared to CGI. Composite basic 3D model into a photograph.
Week 2:	Creating and applying photo-real textures. Create photo real composite of model into environment. Animate model over moving live action background.
Week 3:	Global Illumination. Using model from previous week, render using GI and composite into photo.
Week 4:	Global Illumination continued. HDRI. Render photo real environment using 3D and compositing techniques.
Week 5:	Compositing a computer graphic element into live action. Composite CG element into green screen shot.
Week 6:	Advanced lighting and production tools. Create a fully rendered CG environment. In class critique.
Week 7:	Multi-pass rendering. Create multi-pass render and composite. Create sequence utilizing CG element(s) composited into live action.
Week 8:	CG environment due. Advanced rendering techniques. Z-Depth mattes. Work on CG/live action composite.
Week 9:	Advanced compositing techniques. Continue working on CG/live action composite.
Week 10:	Continue work on CG/live action composite.
Week 11:	CG/live action composite due. In-class critique.

Assessment Criteria and Methods of Evaluating Students

Class Participation	10%
Quizzes	10%
Projects	50%
Term Paper	5%
Presentation	5%
Final Exam	20%
	100%

Grading Scale

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

Date Syllabus Was Last Reviewed

4/4/2014

THE ILLINOIS INSTITUTE OF ART TINLEY PARK

Course Syllabus: 3D Visual Effects & Compositing

Course Name:	MAA-336 3D visual Effects & Compositing	**Instructor:**	**Tieri**
Department:	Media Arts & Animation	**Office Phone:**	TBD
Length / Hours:	11 weeks, 66 hours	**E-Mail:**	atieri@aii.edu
Credits:	4	**Time & Place:**	6-8:50pm, M&W, RM. 202
Term & Year:	Spring 2014	**Section(s):**	A

I, _____

hereby acknowledge that I have received, reviewed and understand the syllabus and the expectations and requirements of MAA-336, 3D Visual Effects & Compositing.

Signature:_____

Name (printed) :_____

Date:_____