

# The Art Institute of Fort Lauderdale

## Course Syllabus

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Term: Winter 2012  
Day: Monday/Thursday  
Time: 1 pm – 3 pm

**Course Title:** 3D ANIMATION I: PRINCIPLES

**Course Number:** DIG3306C

**Course Description:** This animation course builds on tools, concepts and techniques learned in the 3D Modeling course. Techniques in animation are explored. This course provides a solid understanding of 3D computer animation.

**Prerequisite(S):** DIG2321C

**Corequisite(S):** DIG3323C

**Instructional Contact Hours/Credits:** 4 hours/week, 11 weeks, 3 credits/quarter, 2 lecture hours + 2 lab hours

Quarter Credit Hour- 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, practical, studio work, and other academic work leading to the award of credit hours.

### Learning Objectives:

1. Introduce production schedules as part of the project management process.
2. Analyze real world observations and begin to apply to animation.
3. Introduce traditional animation concepts into 3D animation.
4. Use storyboard and animatic techniques to plan animation.

**Required Text:** N/A

**Suggested Text:** Autodesk. Learning Autodesk 3ds Max Design 2010: Essentials: The Official Autodesk 3ds Max Reference: Elsevier Science, 2009 ISBN-13: 9780240811932

George Maestri.3ds Max at a Glance: Autodesk, 2007  
ISBN-13: 9780470179840

Trade Magazines:

<http://usa.autodesk.com/>  
<http://www.highend3d.com/>  
<http://www.insidecg.com/>  
<http://www.cgtalk.com/>  
<http://www.11secondclub.com/>  
<http://www.animationmentor.com>  
<http://www.cgtoolkit.com/>  
<http://dafont.com>  
<http://3d.sk>  
<http://www.tutorialized.com>  
<http://www.subdivisionmodeling.com/blogger/>  
<http://zbrushcentral.com>  
<http://www.mudbox3d.com/>  
[www.awn.com](http://www.awn.com)

**Instructional Methods:**

Lectures, Examples, Handouts & Labs.

There will be projects throughout the course. Brief homework assignments will be given each week to be turned in the following week. Attendance and class participation are required and will factor into your overall grade.

**Assessment Criteria and Methods of Evaluating Students:**

*Comprehension-* Based on understanding of applied techniques, project quality, execution of project (deadlines, parameters, constraints) and critical statements about learned competencies.

*Criteria-* A project turned in on time which simply meets all the requirements will receive a C grade or lower. A higher grade is achieved by not only meeting the requirements, but by displaying an understanding of motion as well as creativity and originality in the animation.

**Grading Scale:**

Bouncing Ball	10%
Solar System	5%
Object Timing & Motion	10%
Abstract Modifiers	5%
Midterm: Rube Goldberg Machine	25%
Roller Coaster	5%
Final: Catch the Snitch	25%
In-Class Exercises	5%
Class Participation	10%
Total	100%

Grading scale:

93 – 100% = A	77 – 79% = C+
90 - 92% = A -	73 - 76% = C
87 - 89% = B+	70 - 72% = C-
83 - 86% = B	65 - 69% = D+
80 - 82% = B-	60 - 64% = D
	0 - 59% = F

*Conduct* - Students are expected to act in a professional manner. Any student acting in a disruptive manner will be asked to leave and will receive a failing grade for that day.

*Visitors* - No visitors will be admitted during class unless otherwise granted permission by the instructor.

*Policies*: All policies of the Student Handbook apply to this course. These include, but are not limited to, grading policies, attendance, and plagiarism. See also “Student Responsibilities / Classroom Policies.”

*Attendance*: Any student who does not attend class for 10 consecutive calendar days may be withdrawn from school. Absences of more than 9 hours in a 3 hour per week course, or 12 hours in a 4 hour per week course constitute failure. Note: absences are cumulative and include tardiness. Please see the student attendance policy in the student handbook or the catalog for further information.

Students are expected to be present for every class, arriving on time and staying until class is dismissed. Since each class represents an entire week of the quarter and participation makes up such a large percentage of your overall grade, it will be difficult to pass the course if there are absences.

School policy states that a student who misses more than 12 hours will fail a class unless the instructor determines that there are acceptable extenuating circumstances. Rarely will this exception be made. The tardy policy states that student who is more than 15 minutes late will be considered absent until the break.

*ADA Statement*: It is AiFL’s policy not to discriminate against qualified students with a documented disability in its education programs, activities or services. If you have a disability-related need for reasonable accommodations in this class, contact AiFL’s Counseling Department located in Harbor Walk, Suite 101.

*Estimated Homework Hours*: approximately 4 hours per week.

*Technology Needed*: Pencils (HB), Backup devices of choice.

***Student Responsibilities / Classroom Policies:***

Late work: Assignments must be in on the date identified in the syllabus and at the beginning of class. Work turned in one week or less late will be given 50% of their original grade. No work accepted beyond one week. Excuses, such as, failure to backup, technical difficulties at home or at school, lost work, not being in attendance when teacher orally changes project parameters, work overload,

financial reasons, and other such excuses are rarely excepted and at the discretion of the instructor. The final must be turned in at the beginning or class on the date due, no late work will be accepted in this case.

Plagiarism: Plagiarism will not be tolerated and may lead to immediate expulsion from the class. Plagiarism includes taking words, ideas, or artwork from anyone else and presenting it as your own or not citing properly in accordance with APA style.

Lab Hours: The Instructors reserves the right to assign mandatory lab hours where they see fit. Failure to fulfill assigned hours will severely affect the participation grade for the class.

Saving Work: It is the student's responsibility to save his or her work to disk/CD/external drive. Multiple copies should be saved and verified prior to leaving the classroom. The teacher is in no way responsible for the work saved on the hard drives, nor is he/she bound to give an extension on work improperly saved. The hard drives will get purged regularly.

Changes to the syllabi are at the discretion of the instructor and it is the student's responsibility to stay informed of these changes.

Class time is designated to set direction, to allow for discussion and demonstration of new concepts and techniques, and to give critiques and feedback on work done to date. It is not expected that students will complete assigned projects during class hours. For this class you should anticipate spending a minimum of 4 hours per week outside of class completing assignments. If you plan to work at school please check class and lab schedules for available space. Students are responsible for submitting all work on the syllabi regardless of if they are reminded in class. Reading the syllabi is the student's responsibility.

**Graduating portfolio students are required to have their finals turned in for all classes week 10 of the graduating quarter.**

**Graduating portfolio students are required to have their print portfolio turned into the chair's office by 10:00 PM on Wednesday of the tenth week. Digital portfolios are due in the chair's office by 10:00 PM on Thursday of the tenth week or in their Portfolio Presentation class, whichever comes first.**

**Advisement is available in the assistant department chair's office during the 6th week of the quarter.**

**Online registration is the 6th week of the quarter.**

**Students wishing to withdraw from a course must do so before week nine.**

**Students wishing to drop a course without penalty must do so the first week of class.**

**Date Syllabus**

**Was Last Reviewed:** January 7, 2012

**Topical Outline:**

- WEEK 1**
- Introduction:** Class policies and procedures.
- Review:** Main Menus, Viewport Navigation, Workspace, Selecting Objects, Snapping, Transforming Objects, Pivots, Toolbar, Graphite Modeling Tools, Command Panel, Quad Menus, Status Bar, Managing Objects, Layers. Grouping and Linking, Saving files and navigating the system.
- Lecture:** Track View – Point A to B animation- Curve Editor: Tangents, Tangent Weights.
- Lab:** In class exercise **2nd class**- Bouncing ball.
- Assignment:** Expand on the bouncing ball tutorial. Introduce additional objects of various sizes. Must demonstrate weight. Bounce ball into a bucket.  
\*Scene file due beginning of **1st class** Week 2.
- WEEK 2**
- Holiday:** (1st class) Martin Luther King Jr. Birthday!
- Due at the beginning of 2nd class - Bouncing Ball**
- Review:** Track View – Curve Editor: Tangents, Tangent Weights.
- Lecture:** Link Tool and Rotation Angles. Hierarchy - Link Info - Locks. Create Helpers - Dummy.
- Lab:** Animation demonstrating Linking techniques. Examples: Solar System (2nd class).
- Assignment:** Solar System. \*Scene file due beginning of **1st class** week 3.
- WEEK 3**
- Due at the beginning of class - Solar System**
- Lecture:** Timing and Motion.
- Lab:** Cubes, Cylinder and Cones. One primitive object scares another.
- Assignment:** Object Timing and Motion.  
\*Scene file due at the beginning of **1st class** week 4.
- WEEK 4**
- Due at the beginning of class - Object Timing and Motion**
- Lecture:** Animating Modifiers.
- Lab:** Explore tools and techniques outlined in today's lecture.
- Assignment:** Apply Modifiers to primitive objects and create an abstract scene (storyboard scenario before starting).  
\* Scene file due at the beginning of **1st class** week 5.
- WEEK 5**
- Due at the beginning of class - Abstract Modifiers**
- Lecture:** Hierarchy - Link Info – Inherit. Motion – Assign Controller - Link Constraints.
- Lab:** Rube Goldberg Machine.
- MIDTERM:** 3D animation based on the Rube Goldberg scene file provided by instructor. *Add at least one contraption of your own to the scene.*  
\*Scene file due at the beginning of **1st class** week 6.  
*Study notes for Midterm Exam to take place during 2nd class.*

<b>WEEK 6</b>	<p><b>MIDTERM:</b> <b>Rube Goldberg Machine due at the beginning of 1st class. Resubmit Rube Goldberg Machine and take Midterm Exam at the beginning of 2nd class.</b></p> <p><b>Lecture:</b> Class Critique of Midterm.</p> <p><b>Lab:</b> Improve Animation.</p>
<b>WEEK 7</b>	<p><b>Lecture:</b> Motion - Assign Controller – Path Constraint.</p> <p><b>Lab:</b> Using a circle (shapes) and cube (standard primitive) create simple path animation.</p> <p><b>Assignment:</b> Create a custom Roller Coaster using tools and techniques outlined in today’s lecture. Hints: Do not forget to duplicate path shape to be used for the path structure. Use Rendering, Enable in Viewport for the coaster. *Scene file due at the beginning of <b>1st class</b> week 8.</p>
<b>WEEK 8</b>	<p><b>Due at the beginning of class – Roller Coaster</b></p> <p><b>Lecture:</b> Motion - Assign Controller – Noise (on Position and Rotation).</p> <p><b>Lab:</b> Explore tools and techniques outlined in today’s lecture. Create a “snitch” (from Harry Potter) assign noise to the wing objects and use dummies to animate it along a path.</p> <p><b>FINAL:</b> Using supplied Copter Claw file, try to catch the snitch and put it in a box. You will need to create all elements of the scene <i>except the Copter</i>. You will need to demonstrate proficiency with tools and techniques learned throughout the quarter including: Linking, Path Constraints, Link Constraints, Noise Constraints, and Animating Modifiers. Don’t forget to use Track View – Curve Editor: Tangents. *Scene file due at the beginning of <b>1st class</b> week 11.</p> <p><b>Assignment:</b> Finish snitch animation. *Scene file due beginning of <b>2nd class</b>. Storyboard final scenario *due beginning of <b>1st class</b> week 9.</p>
<b>WEEK 9</b>	<p><b>Lecture:</b> Using Copter Claw.</p> <p><b>Lab:</b> Use the Copter file provided by your instructor to animate the helicopter flying in, picking up a sphere and flying off. *Scene file due beginning of <b>2nd class</b>. Rework storyboard based on exercise experience and start final.</p>
<b>WEEK 10</b>	<p><b>Lecture:</b> Dailies Q&amp;A.</p> <p><b>Lab:</b> Continue final.</p> <p><b>Assignment:</b> Continue final. *Scene file due beginning of <b>1st class</b> week 11. <i>Study notes for Final Exam to take place during 2nd class.</i></p>
<b>WEEK 11</b>	<p><b>FINAL:</b> <b>Copter Scene due at Beginning of 1st Class for Critique. Resubmit Copter Scene and take Final Exam at the beginning of 2nd class.</b></p>