



#### MISSION STATEMENT

Miami International University of Art & Design is a multi-campus, career-oriented institution that provides students with academic preparation and practical skills through programs in the applied arts and design industries. The institution prepares its undergraduate students for entry-level positions and its graduate students for advancement in their chosen fields. The University is dedicated to fostering a culture that encourages creativity, research, and learning-centered endeavors.

#### COURSE SYLLABUS

**Course Number:** CA4400  
**Course Title:** Digital 2D Animation Studio  
**Class Meetings:** 1PM - 5PM Fridays  
**Session / Year:** Winter 2012  
**Instructor Name:** Krishna M. Sadasivam

**Email Address:** [ksadasivam@aii.edu](mailto:ksadasivam@aii.edu) , [krishna.at.ait@gmail.com](mailto:krishna.at.ait@gmail.com)  
**Telephone:**  
**Office Hours:**

**Course Description:** Students will use advanced animation techniques to create, design, produce and edit a fully realized concept.

**Course Length:** 11 weeks

**Contact Hours:** 44 hours

**Credit Values:** 4 credits

**Estimated Homework:** 8 hours per week

**Quarter Credit Hour Definition:** A quarter credit hour is an amount of work presented 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 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, studio work, and other academic work leading to the award of credit hours.

**Learning Objectives:**

Students in this course produce animation within limited delivery constraints. Limitations of image size, formatting, and color depth will be explored.

**Course Competencies:**

***Apply the 12 principles of animation to vector based 2-D animations.***

- Integrate straight-ahead, pose-to-pose, follow through and overlapping action into a 2D animation
- Integrate slow in and slow out, arcs, secondary action and appeal into a 2D animation
- Integrate exaggeration, weight, depth, balance and appeal into a 2D animation
- Develop an animation that utilizes cycles, anticipation, squash and stretch.
- Generate drawings that depict gesture and motion

***Apply industry-standard capture techniques to resolution independent 2D animation***

- Create, capture, manipulate and edit images using digital processes

***Apply industry-standard storyboard techniques to animation***

- Employ staging and composition

**Course Prerequisite(s):** CA2500 Intro to 3D Animation

**Text(s):** *Animation Development: From Pitch to Production* (Paperback) David B. Levy, Allworth Press (September 8, 2009), ISBN-10: 1581156618; ISBN-13: 978-1581156614

**Materials and Supplies:**

**Technology Needed:**

**Grading Scale:** All assignments must have clear criteria and objectives. All students shall be treated equitably. It will be every student's right to know his or her grade at any reasonable time he or she requests it. The criteria for determining a student's grade shall be based on a percentage of total points, as follows:

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

**Student Evaluation /  
Grading Policies:**

The following assignments, projects, and exams fulfill the learning objectives for this course:

**Electronic Submission of  
Assignments:**

Any assignments submitted to the instructor as electronic attachments to an email are the responsibility of the student. Instructor will acknowledge the receipt of the email to the student within 24 hours of receiving it. If the student does not receive an acknowledgement within 24 hours it is the student's responsibility to contact the instructor, otherwise it is assumed that the assignment has not been sent.

**Students with Disabilities:**

The University provides accommodations to qualified students with disabilities. The Student Affairs Department assists qualified students with disabilities in acquiring reasonable and appropriate accommodations and in supporting equal access to services, programs and activities at the University.

Students who seek reasonable accommodations should notify the Dean of Student Affairs of their specific limitations and, if known, their specific requested accommodations. Students will be asked to supply medical documentation of the need of accommodation. 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 Dean of Student Services to allow for time to gather the necessary documentation. If you have a concern or complaint in this regard, please contact the Dean of Student Affairs. Complaints will be handled in accordance with the University's Student Grievance Procedure for Internal Complaints of Discrimination and Harassment.

**Course Attendance:**

The University expects students to attend all scheduled meetings of each course. Students should be prepared to start the quarter on the first day of classes and to add/drop courses early in the first week of the quarter to minimize absences. Absences accrue against the student even if the student was not originally registered for the class but adds it after the start of classes.

**Students who do not attend any of their classes during the Add/Drop will be withdrawn from the University. They must contact the Assistant Director of Readmissions to return.**

Students must attend a minimum of nine classes per course in order to receive a passing grade in the course. Attending less than nine classes or 36 hours of course instruction will result in course failure unless the Dean of Academic Affairs determines that there are acceptable extenuating circumstances. Students should be prepared with written documentation of circumstances beyond their control that contributed to the absences for consideration by the Dean. If the student is allowed to remain in the class and receive a grade there will need to be a description of appropriate make up work from the respective Instructor. Please note that a student can withdraw from any class through the ninth week without receiving an "F." Course withdrawal forms must be submitted to the Registrar's Office by the close of business on Friday of

week 9 in order to receive a “W” grade. Holidays and official class cancellations do not count as absences.

#### REQUIREMENTS

1. Attend all class meetings, arrive on time, and stay for the duration of the class.
2. Faculty policies regarding attendance, tardiness arriving to class and returning from breaks, or leaving class early can be found in the course syllabus.
3. Students who violate the attendance policy will fail the course.

#### **Consecutive Days Absence Policy**

A student who is withdrawn for failure to attend any classes within a consecutive ten calendar day period may be permitted to apply for readmission into the subsequent quarter.

Students who miss ten consecutive calendar days may be withdrawn from the University and will receive W's for all courses, if the withdrawal occurs before the end of the ninth week of the quarter, or WF's for all courses, if the withdrawal occurs after the end of the ninth week of the quarter. Students who have been withdrawn due to violation of the consecutive absence policy but are still in good academic standing will be able to return the following quarter through the readmissions process. Students who have been withdrawn and the withdrawal results in a violation of the satisfactory academic progress policy (SAPP) must follow the procedure for appealing academic termination. See Satisfactory Academic Progress section.

#### **Academic Honesty:**

The University does not tolerate plagiarism, cheating, copying or academic dishonesty in any form. Academic integrity policies apply to both the giver and receiver of information. Students who witness any act of academic dishonesty should report the incident to a faculty member, their Chair, or to another member of the University staff or administration immediately.

#### **Saving Work:**

It is the student's responsibility to save his or her work. The student should save and verify multiple copies prior to leaving the classroom. The teacher is in no way responsible for work saved on the hard drives, nor is he or she required to give an extension on work improperly saved. Local and network drives at the University, including all computers in the labs, will be purged regularly and should never be used by students for long-term storage. These drives are available for student use during class and lab sessions, but all data will be deleted on a daily basis. Students are expected to backup all work. Loss, theft, and computer failure are not acceptable excuses for not saving work.

#### **Reminders:**

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.

#### **Library:**

The Libraries on each campus are one of the most important resources available to students while attending the University. The Library supports learning and encourages intellectual curiosity among students and faculty. The Library staff works in cooperation with faculty to help students develop into the ability to find, evaluate, and use information in order to become lifelong learners. To fulfill this mission, the Library



develops and maintains a quality collection of books, periodicals, audiovisual materials, and online databases. The Library provides access to remote resources through Internet access and cooperative agreements with other libraries.

WEEKLY CLASS TOPICS AND ASSIGNMENTS

**CLASS SCHEDULE:**

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**Week 1:**

**Topics:**

- Introductions
- Previous Projects: Screening
- Review Syllabus
- Classical vs. limited 2D animation: “It’s all about tradeoffs”
- Why Flash?
- Examples of Flash Animation in the Industry
- Meet Flash
- Configuring Flash for 2D Animation
- Stages, Libraries, and Tickers, oh my!
- BREAK: \* \* **Check out a Wacom Tablet** \* \*
- How to Hook Up... (...and use a Wacom tablet)
- Using The Brush Tool and The Pen Tool
- What the heck are Symbols and why should I use them?
- Layers in Flash
- Basic Keyframing in Flash (trucks and pans)
- Onion-skinning
- Ease in / Ease Out
- The Importance of Asset Management
- Testing your movie
- SWFs – exporting your movies for the web

**In-class:**

- Ice-breaker / Intros
- Lecture
- Understanding the Flash User Interface
- DEMO: drawing in Flash using a Tablet
- DEMO: creating and modifying symbols in Flash
- DEMO: ease-in / ease-out
- DEMO: Testing your movie
- Check out Wacom tablet and stylus
- Getting Used to Drawing and Coloring in Flash

**Assignment Due Next Week:**

- **Silhouette World Pan Animation Due** (fully animated)

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**Week 2:**

**Topics:**

- Silhouette World **Pan** Animation Screening and Class critique
- K.I.S.S. and what it means for character design
- Character design using Flash: techniques and tips to make your characters appealing and your animation workflow less work.
- Flash “power tools” – other stuff in the Toolbox
- Image Optimization and why it’s yummy
- Scanning in your pencils and importing bitmap art into Flash
- The “Other” Way to Draw in Flash (using shapes)
- Nested Symbols
- Using Gradients
- Adding Texture
- Trace Bitmap
- 4 Really Cool Shading Tricks

**In-class:**

- Class critique of digital assets and keys for Silhouette World.
- Studio time, one-on-one help with Flash animation

**Due Today:**

- **Silhouette World Pan** Animation Due

**Assignment Due Next Week:**

- **Silhouette World Zoom** Animation Due (fully animated)

**Week 3:**

**Topics:**

- Showtime: We watch your “Silhouette World” animation
- DEMO: Character Design for Flash
- DEMO: The “Other” Way to draw in Flash
- DEMO: Creating a character from the ground up (two techniques)
- Aesthetics of Set Design for Animation
- Creating titles
- Making a rough animatic in Flash

**In-class:**

- DEMO: character design techniques using Flash
- DEMO: Making an animatic using Flash
- DEMO: importing scanned artwork into Flash
- DEMO: set design techniques in Flash

**Due Today:**

- Silhouette World animation

**Assignment Due Next Week:**

- “Alien Encounter” Part I: Rough animatic, character designs and set designs
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**Week 4:**

**Topics:**

- Edit points for joints

- Key posing
- In-betweening
- Timing
- Cushions to Create Snappiness™
- Squash and Stretch
- Line of action
- Weight
- Arcs
- Separating Levels in Flash
- Cheating the walk cycle and other tricks
- Dissolves, Fades and Wipes
- In-class studio time
- One-on-one help

**In-class:**

- Class Critique - Animatic, Character and Environment set designs
- DEMO - “Brush Tool” and “Line Tool” Project
- DEMO - Acting!
- DEMO - Edit points for joints
- DEMO - cheating the walk cycle
- DEMO - more fun with ease-in / ease-out
- DEMO - squash and stretch
- DEMO - cushions (“those aren’t pillows!”)

**Due Today:**

“Alien Encounter” Part I: Character and Environment set designs and Rough Animatic

**Assignment Due Next Week:**

- “Alien Encounter” Part II: Main Keyframes Due

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**Week 5:**

**Topics:**

- Distorting Bitmaps
- The Envelope Tool
- Warping
- Hinging Body Parts
- Closing the Gaps

- Importing PSDs into Flash
- Looping Backgrounds
- **Due Today:**  
“Alien Encounter” Part II: Main Keyframes Due

**Assignment Due Next Week:**

- “Alien Encounter” Final animation
- \*\*\* **IMPORTANT: Bring your Headphones for Week 7.**

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**Week 6:**

**Topics:**

- Demo: the Blur Filter
- Demo: Selective Blurring
- Demo: Background Blurring
- Recording and Importing Sound
- File Types and Quality
- Playing Sound in Flash
- Lip-synching techniques
- Animation Pipeline for Broadcast Output using Flash and After-Effects
- Output render settings for Broadcast
- Square Pixels vs 4:3 Aspect Ratio

**In-class:**

- Screening: Alien Encounter!
- DEMO: importing audio into Flash
- DEMO: lip synching
- DEMO: Exporting movie to Quicktime
- In-class lip-synching practice (I hope you brought your headphones!)
- Mid-term One-on-One Conferences....
- Studio time to work on lip synching

**Due Today:**

Final Alien Encounter animation due (yup, the whole thing)

**Assignment Due Next Week:**

- Monologue Project (10 second clip)

## **Week 7:**

### **Topics:**

- Masking Tricks
- Demo: Iris transition
- Demo: Hand writing
- Demo: Spotlight
- Demo: Basic Shadows
- Demo: Drop Shadows
- Demo: Perspective Shadows Making your characters believable – even when they’re not.
- The Final Project: There’s that K.I.S.S. acronym again

### **In-class:**

- Critique: Monologue Project
- S-S-studio Time: In-class work on story idea for Final Project – **storyboards due for my review before you leave class.**

### **Handouts:**

- The Dreaded Final Project (20 seconds MAX.)

### **Due Today:**

- Monologue Project

### **Assignment Due Next Week:**

- Rough Animatic, digital assets (character(s), environments)
- \*\* AGAIN – KEEP IT SIMPLE! \*\***

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## **Week 8:**

### **In-class:**

- Class critique: Animatic and Digital assets
- Demo: The Vertigo effect
- Demo: Speed Lines
- Demo: Special Topics as needed
- Studio Time: Keyframe madness
- One-on-one individual help

### **Due Today:**

- Rough animatic, digital assets for Final Project

**Assignment Due Next Week:**

- Main Keyframes Due for Final Project.

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**Week 9:**

**Topics:**

- In-class studio time
- Animate! Animate! Animate!

**In-class:**

- work session
- any last minute tweaks
- Individual help and Q-n-A as needed

**Assignment Due Next Week:**

- DVD specifications

**Handout:**

- DVD specifications handout

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**Week 10:**

**In-class:**

- work session
- any last minute tweaks
- Individual help and Q-n-A as needed



**Week 11:**

- Final Projects all due on DVD.
- Screening of Final Projects. Woot!
- Class critique. Closing thoughts.

**CONGRATULATIONS!!**

I, \_\_\_\_\_, affirm that I have received the syllabus for \_\_\_\_\_ for Winter Quarter 2012. Furthermore, I have read the content of this document and understand that I will be held accountable for the assignments and other required work for this class.

I confirm that I have received the following documents:

- CA4400 syllabus
- Class attendance policy
- Grading criteria
- Statement of Project dues dates and/or deadlines.
- Purchase requirements
- Overview of assignments and class schedule
- The website for the course assignments ( <http://www.sivamstudios.com/ait> ) and the instructor's contact information ( [krishna.at.ait@gmail.com](mailto:krishna.at.ait@gmail.com) )

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Signature

\_\_\_\_\_  
Date