

THE ART INSTITUTE OF TAMPA
A BRANCH OF MIAMI INTERNATIONAL UNIVERSITY OF ART & DESIGN

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: MAAA111
Course Title: ANIMATION PRINCIPLES
Class Meetings: Tuesday 1PM – 5PM, Room 232
Session / Year: Summer 2017
Instructor Name: Krishna M. Sadasivam
Email Address: krishna.at.ait@gmail.com (preferred)
Telephone:
Office Hours: posted on sivamstudios.com/ait

Course Title: **Animation Principles**
Course Description: Students will explore and implement the principles of animation through projects that emphasize analyzing real-world movement, adapting that movement for the animation medium, and creating the illusion of life.

Course Length: 11 weeks

Contact Hours: 44 hours

Credit Values: 3 credits

Estimated Homework: 4 to 8 hours per week

Quarter Credit Hour Definition: A quarter hour of work is the equivalent of fifty (50) minutes of class time (often referred to as a “contact hour”) of instruction per week over the entire term. The credit hour is the unit by which the university measures its course work. The number of credit hours assigned to a course quantitatively reflects the outcomes expected, the mode of instruction, the amount of time spent in class, and the amount of outside preparatory work expected for class. The working understanding is that for every hour a student spends in class, the student will be assigned two hours of work outside the class.

Prerequisite(s): **MAAA102 *Life Drawing & Gesture***

Learning Objectives:

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

Identify the principles of animation

- Deconstruct real world movement through action analysis
- Relate real world movement to the principles of animation

Apply the principles of animation

- Integrate straight-ahead action, pose-to-pose, follow through and overlapping action into a animation
- Integrate slow in and slow out, arcs, secondary action and timing into a action
- Integrate exaggeration, weight, depth, balance and appeal into a animation
- Develop an animation that utilizes cycles, anticipation, squash, and stretch
- Demonstrate an understanding of shape, weight, space, and solid drawing
- Generate drawings that depict gesture and motion

Instructional Materials and Reference:

Textbook(s):

Cartoon Animation (How to Draw & Paint Series. Preston Blair, Walter Foster Publishing. ISBN: 1560100842

Or

The Animator's Survival Kit, Richard Williams, Farber and Farber Publishing.

ISBN: 0571202284

Suggested Textbooks: *The Animator's Survival Kit*, Richard Williams

The Animation Book, Kit Laybourne

The Illusion of Life, Frank Thomas and Ollie Johnston

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.

Instructional Methods: (Instructional methods include, but are not limited to simulations, case studies, discussion, group work, questioning, presentations, journals, individual projects, etc.)

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:

Must list all graded course requirements (exams, quizzes, essays, projects, presentations) and the percentage of a student's grade that each requirement is worth.

PROJECTS and QUIZZES:

Shape Morph Animation	100
Bouncing Ball Practice Exercises	100
Bouncing Ball Obstacle Course	100
Flour Sack Fall	100
Successive Breaking of Joints Animation	100
Emotional Walk Animation	200
Sketchbook Project*	100

*Students are expected to draw every single day in their sketchbook. Sketchbook assignments for the quarter appear towards the end of this syllabus.

Quiz 1	10
Quiz 2	10
Quiz 3	10
Quiz 4	10
Quiz 5	10

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 office 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 for 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 necessary documentation. If you have a concern or complaint in this regard, please contact the Dean of Student Affairs in Room. Complaints will be handled in accordance with the school's Internal Grievance Procedure for 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. The only exceptions to this policy are graduating seniors and university imposed closings for holidays. Attending fewer 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 nine 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.

Attendance Policy:

- The Art Institute of Campus is committed to learning-centered, hands-on instruction, which can only be accomplished when students attend class. There are no excused absences. The satisfactory explanation of an absence does not relieve the student from responsibility for the course work assigned and/or due during his/her absences. A student who does not attend class during the first week of school or starts late is still held responsible for his/her absences.
- A student who is absent for *three cumulative weeks** will be withdrawn from the course and will receive a Withdrawal (W) grade during weeks 1 through 9 of an 11 week term and a Withdrawal/Fail (W/F) grade after week 9 of an 11 week term for that course (after week 4 of a 5.5 week Mid-quarter ground term) unless the student submits an appeal to remain in class that is accepted by the instructor and department director/dean. A student is allowed only one appeal per class. In other words, if a student submits an appeal and it is approved, the next absence will initiate a non-appealable withdrawal from the course. The Attendance Appeal Request Form may be found in the Registrar's Office.
- It is your responsibility to stay in communication with your instructor about absences in order to stay current with assignments. **You are expected to spend the entire amount of scheduled class time in the classroom.** If you are dropped from the class and you have a documented mitigating circumstance, you may have the opportunity to appeal. It is your responsibility to ensure that your attendance in class is brought to the faculty member's attention if you arrive late.
- Students who are not marked present in any of their scheduled classes for fourteen (14) consecutive calendar days before the end of the ninth week of the 11 week term (week 4 of a 5.5 week Mid-quarter ground term), will be withdrawn from the Institute and will receive W's (withdrawals, with no grade penalty), or if the withdrawal occurs after the end of the ninth week of an 11 week term (after week 4 of a 5.5 week Mid-quarter ground term) students will be withdrawn from the Institute and will receive WF's (Failures due to late withdrawal). Calendar days include days that the student does not have any scheduled class. All calendar days that the school is not in session (e.g., school closings and holidays) do not count in the fourteen (14) calendar days as well during the active term. Students who have been withdrawn due to violation of the consecutive absence policy, but are still in good academic standing, if otherwise eligible, will be able

to return the following term through the normal 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 the academic dismissal.

- Students are encouraged to make all schedule changes early in the first week of the quarter to minimize absences. Failure to sit in all classes during the first two weeks of school will result in termination from school for the quarter. Detailed information about scheduled adjustment periods can be found on the back of your official schedule or in the local Ai campus catalog.
- If you are going to miss class, regardless of the reason, you should notify your instructor. You are responsible for gathering any information from the missed class period in a timely manner.

Ai Unearned F (UF) Grade Definition

Unearned F Grade: students who failed the course AND did not complete the final assignments in the course. Final assignment include, but is not limited to a final exam, final project, final paper, portfolio presentation, capstone project or any other assignment due in the last week of the course. If a student completed some or all of the other requirements in the course but did not complete the final assignment of the course and failed the course, the F grade will be considered unearned. An unearned F grade will be reflected as a “UF” grade on the transcript. The course’s instructor will award this grade when appropriate.

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 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.

Week 1:

Pre-Test

Introduction / Icebreakers / Syllabi / Policies / *The Animator's Survival Guide*

Examples of student work

The 2D Animation Pipeline

Line Quality / Line Confidence

Maintaining a Sketchbook

Drawing vs. Digital Drawing

Using a Graphics Tablet for Digital Drawing

Working with Flash

Animating Shape Morph

The 12 Principles of Animation

Timing Charts

Demos:

1. Shape Morph (Straight Ahead)
2. Reading and Using a Timing Chart
3. The Rolling Ball
4. The Ball on an Incline
5. The Dropping Ball

Homework Due Next Week:

Shape Morph Animation

Bring your sketchbook

Week 2:

Due Today:

Quiz 1

Shape Morph Animation

Demos:

1. Timing Chart Review
2. Squash and Stretch
3. Ease in / Ease Out
4. The Bouncing Ball (in place)

5. The Bouncing Ball (across stage)
6. The Pendulum Swing

Homework Due Next Week:

Animation Practice Exercises (see <http://www.sivamstudios.com/ait/maaa111a.html>)

Week 3:

Due Today:

Quiz 2
Animation Practice Exercises

Demos:

1. Timing Chart Review
2. Anticipation
3. Impact
4. Staging
5. Importing a Background scene into Flash

Homework Due Next Week:

Bouncing Ball Obstacle Course (see <http://www.sivamstudios.com/ait/maaa111a.html>)

Week 4:

Due Today:

Quiz 3
Bouncing Ball Obstacle Course Animation

Demos:

1. Drawing the Flour Sack (Symmetry vs. Asymmetry)
2. Follow Through and Overlapping Action
3. Folding the Flour Sack
4. Twisting the Flour Sack
5. Flour Sack Jump
6. Flour Sack fall and impact

Homework Due Next Week:

Flour Sack Fall Animation (see <http://www.sivamstudios.com/ait/maaa111a.html>)

Midterm Sketchbook Check! Bring your sketchbook!

Week 5:

Due Today:

Quiz 4

Flour Sack Fall Animation

Midterm Sketchbook Check

Demos:

1. How to Study from Reference
2. Character Motivation (The Why?)
3. Successive Breaking of Joints for Arms
4. Anticipation
5. Concavity in pose
6. Impact and Cushioning
7. The Resolve

Homework Due Next Week:

First Draft of Successive Breaking of Joints animation due.

Week 6:**Due Today:**

Quiz 5

Review and critique of 1st draft of Successive Breaking of Joints Animation

Demos:

1. Animating a Head Turn
2. Animating an Expression Change
3. Animating Blinks
4. The Reach and the Grab
5. Putting it all together: Anticipation / Overlap / Follow Through / Squash and Stretch

Homework Due Next Week:

Successive Breaking of Joints Animation (see <http://www.sivamstudios.com/ait/maaa111a.html>)

Week 7:**Due Today:**

Successive Breaking of Joints Animation (see <http://www.sivamstudios.com/ait/maaa111a.html>)

Demos:

1. The Emotional Walk Part A: hips and feet
2. Using Recipes
3. Incorporating Weight in the Walk Cycle

Homework Due Next Week:

Animated Walk Cycle: Hips and Feet (see <http://www.sivamstudios.com/ait/maaa111a.html>)

Week 8:
Due Today:

Animated Walk Cycle / Hips and Feet

Demos:

1. The Emotional Walk Part B: hands, head, and shoulders
2. In-betweens - where and when to add them

Homework Due Next Week:

More progress on Walk Cycle (see <http://www.sivamstudios.com/ait/maaa111a.html>)
Sketchbooks due next week!

Week 9:

Sketchbook Check!

Homework Due Next Week:

Continue on the final walk cycle animation

Week 10:

Studio Time to complete Walk Cycle animation

Week 11:

Walk Cycle Animation Due

NOTE: Syllabus contents and schedule may be subject to change at the instructor's discretion.

Portfolio Requirements:

Students taking **Demo Reel Research** and **Demo Reel Production** will declare a specific focus in Demo Reel Research and provide a production schedule to accommodate their objectives. Projects will be due on **Week 4, Week 7** and **Week 11**. **Incomplete projects will be given the grade of ZERO.** Two incomplete projects will result in failure within the course.

Students are required to find a faculty mentor to sign off on their weekly progress.

Students are expected to show up on time. Students who are late to class on presentation days will not be allowed to present their work and take a ZERO on the project.

Hard Surface Modeling deliverables:

6 fully textured models (assets, buildings, mechanical objects) with process work from concept to final.

- 3 models will be complete in Demo Reel Research
- 3 will be completed in Demo Reel Production

Environment Modeling deliverables:

6 environments (interior / exterior) with process work (including references). The environments will be rendered as a fly-through along with individual stills.

- 3 environments will be completed in Demo Reel Research
- 3 environments will be completed in Demo Reel Production

Organic Modeling:

3 character models (fully lit and textured) in Demo Reel Research.
3 character models (fully lit and textured) in Demo Reel Production.

Models will be placed on an environmental dais or platform that compliments / matches the character's world.

GAD Character Animation:

9 unit animations using a pre-existing, properly rigged character. Each unit animation will include 3 cycles - an attack cycle, a death cycle and an idle cycle that matches the personality and attitude of the character (*optional*) one lip-synch.

- 5 unit animations will be completed for Demo Reel Research
- 4 unit animations will be completed for Demo Reel Production

MAA Character Animation:

6 Character Animation pieces with a focus on ACTING and personality, incorporating the 12 principles of animation will be required for Character Animators. The animations can be all 2D or all 3D or a mix of both, depending upon the focus of the student.

- 3 11 second animations will be completed for Demo Reel Research
- 3 11 second animations will be completed for Demo Reel Production

Storyboard Artist:

A total of 6 Production boards will be required. Boards will showcase a variety of subject matter with specific focuses in the following areas:

atmosphere
dialogue
action
establishing shots

Boards will be fully inked and shaded and include captions. Each frame will measure 4" x 6" in size and occupy an approximately 11" x 17" space. Storyboards will be professionally mounted on black matte, printed at 300dpi CMYK. The matte board will be labeled as to its contents. The dimensions of the matte will include a 3/4" border on the left, top and right side with a 1" border on the bottom.

- 3 production storyboards will be completed in Demo Reel Research
- 3 production storyboards will be completed in Demo Reel Production

(each board must have a *minimum* of 15 panels per board)

Technical Animator:

6 full rigs will be required for the technical animator. Rigs will be shown in a video format and show off the full extent of the rig in terms of its expressiveness and articulation.

- 3 rig demos will be completed in Demo Reel Research
- 3 rig demos will be completed in Demo Reel Production

PLEASE NOTE: contents of syllabus are subject to change at the instructor's discretion.

Sketchbook Assignments By Week

(If you've read the syllabus this far, congratulations!)

Pro Tip: Use references - study, observe and show your work to me weekly for feedback. It is only through diligent and consistent practice and study that you will start to see improvement in your work.

Week 1:

Use forms, line of action, and exaggeration of proportions to create at least 20 characters (male and female) - concentrate on form, balance, and overall appeal of the character. **Do NOT focus on detail.**

Week 2:

Use photo references, the line of action and the principle of exaggeration to create a **female super-hero** in at least **10 dynamic action poses**. Pay particular attention to the silhouette value when developing your poses. **Integrate the reference photos you used into your sketchbook - showing the photo vs. the drawing side by side, for each pose.**

Week 3:

Create an expression sheet with at least 10 different facial expressions for *Dirk the Daring* - move the head around - avoid static, lifeless expressions.

Week 4:

Draw 6 full "body" expression poses of an **overweight samurai** in various martial art poses.

Week 5:

Pick 5 different characters (fat, skinny, athletic, and elderly) and draw them **each** in at least 3 different run poses each based on their motivation: fear, anger, and excitement) - **Midterm Sketchbook Check**. Make sure you have your sketchbook with you, with all the assignments complete up to this point.

Week 6:

Draw at least 100 expressive hands in your sketchbook, studying hands drawn by Milt Kahl and Glenn Keane. (The links to hand references from these artists are available at: <http://www.sivamstudios.com/resources.html>)Practice drawing hands from every angle, **focusing on the underlying form.**

Week 7:

Draw key poses for three different types of lifts (one that is effortless, one that is medium sized, one that is impossibly heavy) using an *elderly, petite framed woman*

Week 8:

Pick at least 15 dynamic poses and incorporate foreshortening as an element in your sketches.

Week 9:

Sketchbook due. Bring yours to class. Late work is not accepted.

SYLLABUS CONTRACT

I, _____, affirm that I have received the syllabus for MAAA111 for **Summer Quarter 2017**. 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 also acknowledge that if I need any help that I will contact my instructor in a timely manner and that it is my responsibility to do so. **I can only help you if you take the time and interest to *ask* for help.**

I confirm that I have received the following documents:

- MAAA111 syllabus
- Class attendance policy
- Grading criteria
- Statement of Project dues dates and/or deadlines.
- Purchase requirements
- I am responsible for making every effort to be on time to class and that there are no make-up quizzes (outside of an extenuating circumstance with appropriate documentation)
- Overview of assignments and class schedule
- **I understand that not paying attention (talking, or being distracted with Facebook, doing homework for other classes, smart phones, etc.) during class will be counted as a half-absence for the first offense. The second offense will result in an “F” for the project.**
- I understand that the website for the course assignments is at (<http://www.sivamstudios.com/ait>) and the instructor’s contact information is(krishna.at.ait@gmail.com)

Signature

Date