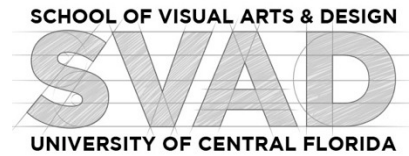


DIG4326C: Geometrical Modeling Workshop
School of Visual Arts and Design
College of Arts & Humanities,
University of Central Florida



COURSE SYLLABUS

Instructor:	Cheryl Briggs	Term:	Spring 2017
Office:	CEM 301H	Class Meeting Days:	Wednesday
Phone:	407-235-3611 office 912-661-3894 cell	Class Meeting Hours:	10:00–11:50 Wed Lecture 1:00–3:50 Wed Lab
E-Mail:	animator@ucf.edu	Class Location:	CEM 303
Website:	http://svad.cah.ucf.edu/	Lab Location:	CEM 306
Office Hours:	Mon & Thur 12-1pm and Wed 4-6pm CEM 301H or check labs 306 & 307		

Regarding Office Hours: Please make sure to email me to ensure that there is time to meet with you. I prefer if you make an appointment. I have had problems in the past with students who get upset when they cannot meet with me because I was with another scheduled student. You, of course, are welcome to drop by, but if I am with another student, you will need to wait. Having an appointment will guarantee you a time to meet, and helps me plan out my day.

Regarding Communication Responses:

First: Google your question first. Seriously. Google is your friend.

Second: Emailing your professors at 2am is fine. But don't expect an answer by 8am. Each professor in the Character Animation Specialization has a different work schedule and has a personal life as well. Your time as a student is essentially free, and time of the people you ask is prioritized, filled, overfilled and double booked. It is easy for you to sit down and write an email; the professor's emails are tucked in between committees, classes, research, grant writing, reviews, editorial work, and (believe it or not) families. Email is a great way to get your question to your professor, but realize they may not be able to answer until they have time. In some cases, they may not have access to information about your question, unless they are in the office. 24 hours is a standard window for an email response, during the business week. Expect faculty to respond to emails between 9am and 5pm on Monday through Friday with a forty-eight-hour lag time. If you have not heard anything in 2 business days, send a kind reminder email with your original email at the bottom. Sometimes email gets buried or simply is not delivered whatsoever.

Third: Facebook. Same response time as email, but usually faster. I do try to answer promptly. However, just because you see me on Facebook does not mean that I will respond to you. If I am in the middle of something, I may read your message but not respond until later.

Fourth: I provide my cell phone number for emergencies. Text me if you are caught in traffic or won't be in for the day because you have food poisoning or any temperature over 100° F. Text me a photograph if water is pouring down out of the ceiling (after you have moved any equipment and placed a trash can underneath). Please include your name in the text. Do not text me questions. Email or Facebook are for questions. Do not call me outside of normal business hours. Think before you text or call, especially if it is outside of normal business hours. Like if it's the witching hour. I'm probably a pumpkin by then.

Course Overview

University Course Catalog Description

Techniques and mechanics of designing and manipulating geometrical representations of artificial characters and their environments; introduction to procedural models

This course establishes the process of creating digital characters and their environments. Modeling, Texturing, and Rigging techniques will be explored.

The course is an integral part of the Character Animation B.F.A. specialization because it focuses on the advanced application of techniques necessary to prepare students for careers or other advanced work in the animation field. During this class, students will complete a larger capstone project as a member of the Character Animation specialization junior class team. Students taking this course, as an elective, will complete equivalent projects that support their progress towards a personal academic goal.

This course will be in a lecture/lab format with work in labs done individually. Students will be evaluated on an individual basis through faculty observation and evaluation of completed assignments.

The lecture/lab portion of this course is primarily a combination of lecture, visual presentations, and then practice. Students will be engaged in discussions and be required to develop assignments that practically apply topics. The lab portion of this course will include assignments and projects that require students to demonstrate a working knowledge of modeling and rigging techniques in the context of production.

Course Objectives

At the end of this course:

1. Student will learn the critical elements of digital figure modeling that distinguishes levels of sophistication in character models and environments.
2. Student will learn to translate design concepts into physical representations (drawings and clay) and then continue with the translation of the concept into a digital representation of their character and environments.
3. Student will be introduced to computer graphics (CG) for the animation industry and the professional practices associated with character and environment development.
4. Student will obtain advanced skill using the industry standard computer graphics production software package MAYA including familiarizing students with MAYA's Embedded Language (MEL) and MAYA's scripting language.
5. Student will experience the tools and learn techniques allowing them to customize their projects, enhance animations and demonstrate competency in animation asset production pipeline.
6. Student will learn visual and mechanical human anatomy to help student understand complex forms and shapes.
7. Student will improve drawing and sculpting skills
8. Student will experience the benefit of breaking complex problems into manageable parts and learning to weave them back together into a grand solution
9. Student will create an exceptionally high-quality CG character and environments that can be used in animation production.

Course Prerequisites

Prerequisites for this course: Portfolio Review and acceptance into the classification as Character Animation (Visual Language) specialization student, Experimental Animation (Art Animation) Track, PR: DIG 4780C, successful portfolio, or C.I.

NOTE: If you did not pass your prerequisites for this course then you will most likely not succeed in this course. You will also be required to retake and successfully pass the prerequisites in order to graduate.

Course Credits

3 (2 hours lecture, 3 hours lab)

Required Texts and Materials

Sketch book/Journal (at least 9" X 12" in size)

Drawing materials

Aluminum foil

Armature Wire 1/16th inch and 1/8th inch

Super Sculpey Clay Original or Firm (Firm is already grey if you don't want to paint)

Neutral Grey (Value 5) Acrylic paint and a paint brush

Wood base

Sculpting tools

Fingernail polish remover (to remove fingerprints from Sculpey)

Baby wipes to clean your hands from the clay

Composition Notebook for Critiques and general production notes.

Flash Drive / External Hard Drive **REQUIRED** for backup

Required Texts:

none

Supplementary (Optional) Texts and Materials (Recommended Readings)

Supplemental Materials:

A Wacom Intuos, Cintiq, or Bamboo tablet

Laptop with Photoshop and Maya (highly recommended)

Recommended Texts:

An Essential Introduction to Maya Character Rigging by Cheryl Cabrera, Focal Press, ISBN-13: 978-0240520827

Rig it Right! by Tina O’Hailey, Focal Press, ISBN-13: 9780240820798

The Art of Rigging, Volume 1 (E-Book) by Gary Oliverio, Wordware Pub, Inc. ISBN 13:978-1-59822-020-9

http://cgtoolkit.net/osc/product_info.php?cPath=22&products_id=34

Grading

Assessment	Percent of Final Grade
Assignment 1: Character Design	5%
Assignment 2: Character Maquette	10%
Assignment 3: Character Model Sheet T-Pose	5%
Assignment 4: Character Model	15%
Assignment 5: Simple Rig	5%
Assignment 6: Blendshapes/UVs	15%
Assignment 7: Final Skinned Character Rig with Facials	25%
Class Attendance & Participation	20%
	100%

Grading Scale (%)	
95-100	A
90-94	A-
87-89	B+
80-86	B
77-79	C+
70-76	C
67-69	D+
60-66	D
0 - 59	F

Grade Dissemination

Class Attendance and Participation (20%):

"If you are early, you are on time. If you are on time, you are late. If you are late, you are fired." - show business

"No one ever got fired for showing up early" - show business

"He that is good for making excuses are seldom good at anything else." - Benjamin Franklin

Students are responsible for attending all classes on time, being prepared, and making meaningful participation in discussions. Failure to do so will result in decreased participation grade determined by the discretion of the instructor.

Attendance Policy:

1. Roll is taken daily.
2. You are responsible for making sure that you sign in daily.
3. Students are responsible for attending all classes on time, being prepared, and making meaningful participation in discussions.
4. All absences must be excused. Unexcused absences are not allowed.
5. Missing more than 4 days (lecture + lab) will result in failure unless there is a legitimate reason for extenuating circumstances.
6. Excused absences will be granted by providing appropriate documentation to your instructor upon return to class. (Ex. Dr's note).
7. More than **two** unexcused absences will cause a one letter grade reduction in your final grade upon the third absence and a loss of an additional letter grade for each class period missed after that. More than **four** absences result in an "**F**" for your course grade.
8. Tardiness or leaving early counts as an absence. However, due to the construction occurring in downtown Orlando, some unexpected tardiness is expected at times. Please be conscientious of this fact and allow for additional travel time.

Why should you attend class?

In the real world, if you don't show up for work, or show up late most of the time, you're going to be fired. In addition, students generally do much better in class if they show up. In this class, the exercises and activities are a major part of the learning experience, so low attendance may lead quickly to a failing grade.

What happens if you miss a class?

First and foremost, you are responsible for any material missed in class. Being absent does not entitle you to one on one instruction from me during my office hours. Contact someone on your team for information and send me an email notice. Again, in the real world, you must contact your boss if you are going to be late or absent from work. If an assignment is due, you must still turn it in on time. Lecture screen-capture videos will be uploaded to YouTube and/or Vimeo. Be aware that technical problems sometimes occur, so this is not guaranteed.

Class Participation During Discussions and Critiques:

Participation in discussions and critiques should be polite and appropriate. Disruptive behavior is not professional and will lower your participation grade.

1. All members of the class are expected to analyze and critique work presented.
2. Students are expected to participate in **cordially** critiquing the work presented during class.
3. Critiques of other students work should be cordial and constructive. Inappropriate, mean spirited critique will not be tolerated.
4. Failure to participate in critique when called upon will result in a grade of zero (0) for participation for that particular class.
5. Additionally, all members of the class **will take notes** in a standard **Composition Notebook** for their critique; both the instructor's notes and suggestions from the class. Every comment **MUST** be written down. Additional notes and comments regarding other students' work may also be recorded.

Assignments (80%):

1. Assignments for this class are designed to allow you to apply the skills, tools, operations, and techniques described in class. All assignments must be turned in with proper naming and file format to receive credit. No substitute assignments will be accepted for assignments. Assignments will be expected to be completed on time and grades

will suffer if assignments are turned in late. Only emergency or pre-authorized circumstances will be considered for acceptance of late work

2. In general, each stage of an assignment will have its own due date. Students will be **required** to show the instructor early stages or works in progress (WIPs) of their work for critique and review before moving on to the next step. The following criteria will be considered in the grading of your assignments:
 - ▲ Timely completion of assignment stages
 - ▲ Ability to follow directions, consider advice, create results
 - ▲ Creativity (artistic design and creative use of tools)
 - ▲ Overall successfulness of assignment
3. Assignments will be turned in through webcourses. Files should not contain any spaces or extra dots in the name. Be sure to check and make sure that the movie plays correctly on one of the macs in the lab before turning it in to me. Make sure you back up your assignment on your own media.
4. Works-in-Progress (WIP) of each assignment should be shown. Failure to show works-in-progress will lower your grade on the assignment by 5% or more.
5. Software, such as MAYA, Nuke, Motion, Final Cut and Photoshop will be provided here for you to use on your assignments. If preferred, students may work on their own computer if they have the appropriate software for the assignment. Check with the instructor about version compatibility before doing this.

All files should be named using the following convention:

LastName_Assn01_v01.ext

AND/OR the appropriate naming convention for upload to the project folder.

What does it mean to be an 'A' student?

First of all, most 'A' students are very organized. They make to-do lists, then schedule time to get everything done. The materials they need are always at their fingertips. They don't have to waste time trying to find something they need. Organization and time management are important skills for students.

'A' students take the initiative. They complete work that has been assigned to them and then look for more ways that they can help complete the project at hand.

'A' students also have good relationships with their teachers. Their teachers know they are serious about learning. Serious students arrive on time for each class. They pay attention in class. They ask and answer questions. They aren't afraid to visit during office hours. Participation in class is important for students who want to make good grades.

Grade Dissemination

Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using the Grade Book function of Webcourses. Please note that scores returned mid-semester are unofficial grades.

Course Policies: Grades

Students must maintain passing grades in good standing. Students who do not, will not be allowed to register for Character Animation classes in the next semester. Students will be warned mid-semester if there is fear that a student's grades are slipping.

Late Work Policy:

Projects, Tutorials & Lessons are due the day and time of class unless otherwise noted. Work will not be accepted late, unless there is an extenuating circumstance that has been communicated with the professor. Failure to turn in an assignment is not acceptable and will result in failure of the course.

Resubmission Policy:

Resubmissions of any materials must be approved in writing prior to resubmission. Formal written request can be submitted via e-mail. Be advised that a resubmission must be submitted within one week of the original due date and can garner nothing higher than a "B"

Extra Credit Policy:

There is no extra credit. Please spend your time on the Projects, Tutorials & Lessons for class.

Grades of "Incomplete":

The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Appropriate documentation must be provided to your instructor when requesting an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

Course Policies: Technology and Media

The equipment in these rooms has been provided for your use in class and for class projects. Without them, you will find doing your assignments can get quite expensive. Please be kind to the furniture and equipment in the Character Animation Specialization Laboratories. Let the instructor know right away if anything is not working properly so that we can get it repaired.

NO FOOD OR DRINKS ARE ALLOWED IN THE Center for Emerging Media CLASSROOMS. A BREAK ROOM IS PROVIDED FOR YOUR DINING PLEASURE. PLEASE USE IT! PLEASE DISPOSE OF FOOD RELATED TRASH IN THE GARBAGE CAN NEAR THE ELEVATOR. CLASSROOM TRASHCANS ARE ONLY FOR PAPER THAT HASN'T TOUCHED ANY FOOD. Remove any unwanted foods from the refrigerator before Friday afternoon or it will be thrown away. Leave a dated note on your food if you want it to remain.

Lab Usage: Students must quit all software and log out of the machine at the end of class. There are limited number of licenses of other software being used throughout the School of Visual Art and Design. Any material saved on the actual machines may be removed at any time. Students should save their work on their own media and under their name on the classroom server. Data can be deleted without notice if space is needed.

Email: All class correspondence must utilize knights email address. The instructor expects notification by E-mail if a student cannot attend class or misses class. E-mail can also be used to ask specific questions about material covered in class. The instructor will respond as soon as possible. E-mail will be read and answered during normal business hours, M-F 9AM-5PM. I may check e-mail at other times but cannot guarantee an expedient response.

Webcourses: This course includes the use of Webcourses, where all submitted files should be uploaded for the assignment. Your grades and attendance will also be available to view here. As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, your attendance/participation grade will be used for this assignment, so you must attend the course and participate no later than January 27. Failure to do so will result in a delay in the disbursement of your financial aid.

Facebook: Facebook groups and Facebook messages are useful because most students check this regularly. However, any official messages should ALSO be sent using knights email. NO FACEBOOK DURING CLASS TIME. Facebook groups are used for communications between students, and technical questions may be PM'd to the professor. Any formal communication and university related business must be emailed to the professor using webcourses or knights email.

One Drive, Dropbox, and Google Drive: Students are required to use One Drive, Dropbox and Google Drive for file sharing when necessary.

Internet: The Internet can only be used for research during class. No games allowed during class time. Facebook and email can only be checked first thing in the morning, at lunch, and 15 minutes before the end of class. No streaming music or video AT ANYTIME, unless it's for reference, and I would prefer that you download any reference that you may use using keepvid.com. If you want to listen to music, you must bring it in on your own device and use headphones.

Headphones: Headphones are not allowed during class time unless searching for sound reference. Wearing headphones prevents you from hearing the professor. This is why library voices are mandatory unless you are communicating with the professor or critiquing.

Vimeo: Lectures and Lab Demos will be screen captured and uploaded to Vimeo weekly for your convenience <https://vimeo.com/cherylcabrera/videos>

Course Policies: Student Expectations

Accommodations for the differently-abled (alternate testing opportunities, support for signers, etc.):

The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Professionalism and Behavior Policy:

Per university policy and classroom etiquette; mobile phones, iPods, *etc.* **must be silenced** during all classroom and lab lectures. Please use headphones when working in the labs outside of class as to not disturb others. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc.*, and have been warned may suffer a reduction in their final class grade. Voices inside of class must be kept in a library whisper, unless asking questions or participating in the critique.

Classroom Responsibility (<http://catalog.ucf.edu/policies/academic-regulations>): Students are responsible for maintaining classroom decorum appropriate to the educational environment. When the conduct of a student or group of students varies from acceptable standards and becomes disruptive to normal classroom procedures, the instructor has the authority to remove the offending party from the room and refer the student to the Office of Student Conduct (FC 142) for disciplinary action.

Students who disrupt the educational environment, both inside and outside of class, will be asked to leave the classroom and/or building. A Student of Concern Form will be submitted. Please see <http://scs.sdes.ucf.edu/concern> for more details of the form and examples of concerning behavior. Further disciplinary action may be pursued if necessary through the Office of Student Conduct.

Academic Conduct Policy: Academic dishonesty in any form will not be tolerated (this includes technology and media pirating). Students should not copy, trace, or rotoscope work of others in this class. Any student caught doing this can be removed from the class. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (<http://www.goldenrule.sdes.ucf.edu/>) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University. In the event of academic dishonesty, faculty members may assign a Z in front of a final course grade on a student's academic record. For further information regarding the addition, removal and appeals process of the Z designation, see <http://z.ucf.edu>.

University Writing Center: The University Writing Center (UWC) is a free resource for UCF undergraduates and graduates. At the UWC, a trained writing consultant will work individually with you on anything you're writing (in or out of class), at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, visit the UWC website at <http://www.uwc.ucf.edu>, stop by MOD 608, or call 407.823.2197.

Important Dates to Remember

All dates and assignments are tentative, and can be changed at the discretion of the professor, however Add/Drop, Mid-Term and Final Exam times and places are mandatory.

Drop/Swap Deadline:	Thu, Jan 12th, 2017
Add Deadline:	Fri, Jan 13th, 2017
Grade Forgiveness Deadline:	Wed, March 22nd, 2017
Withdrawal Deadline:	Wed, March 22nd, 2017
Final Examination:	Wed, April 26th, 2017 10am

Holidays

Martin Luther King Jr. Day:	Mon, Jan 16th, 2017
Spring Break:	Mon, March 13-18 2017

Character Animation Important Dates

Open House:	Wed, Jan 25th, 2017 6:00-9:30pm
DPAC:	Wed, April 12th, 2017 1-5:00pm
Premiere:	Mon, April 26th, 2017 6-9:30pm
Potluck Presentation:	?Fri, April 28th?, 2017 date not confirmed, time TBA

Religious Observances

Students are expected to notify their instructor in advance if they intend to miss class to observe a holy day of their religious faith.

I. Schedule

Note: The Schedule is subject to revision. Under the law of contracts, a syllabus does not qualify as an enforceable contract. Academically, it is considered part of a Professor's creative control over the curriculum, subject matter, and method of instruction. Alterations may be made, so failure to attend class or keep current on changes is done at your own risk. You should not consider the syllabus a static document, but an evolving course outline intended to assist in your learning experience that can be altered based on the judgment of the professor.

#	Date	Lecture/Lab	Due
1	1/11	Overview of course, Character Design lecture/lab	
2	1/18	Character Design critique / Maquette Lecture / Maquette Workshop	A1: Character Model Sheets Designs / Relaxed Pose
3	1/25	Maquette Workshop / Assign Character Model Sheets	
4	2/1	Character Modeling Lecture/Lab	A2: Character Maquette A3: Character Model Sheets T-pose
5	2/8	Facial Modeling Lecture/Lab	*WIP: Character model
6	2/15	Blendshape Modeling Lecture/AbSymMesh/Lab Assign Character Model/ Character UVing and Texturing Lecture/Lab	
7	2/22	Rigging Lecture/Lab – Deformers, Simple Rig Lecture, IK Spline	
8	3/1	Rigging Lecture/Lab – Joints, Local Rotational Axis, Solver, Gimbal Lock	A4: Character Model
9	3/8	Rigging Lecture/Lab – Spine, Ribbon spine, FK Spine, Neck and Head	A5: Simple Rig
10	3/15	No Class - Spring Break	
11	3/22	Rigging Lecture/Lab – FK Lecture, IK Lecture, SC vs RP Solver, Legs & Feet	*WIP: Spine, Neck and Head Rig
12	3/29	Rigging Lecture/Lab – Constraints and Set Driven Key, IK/FK switching Clavicles and Arms	*WIP: Legs & Feet
13	4/5	Rigging Lecture/Lab - Hands	*WIP: Clavicles and Arms
14	4/12	Rigging Lecture/Lab – Mel vs node based control, Bridge Shape, Facial Rigging	*WIP: Hands A6: Blendshapes/UVs
15	4/19	Rigging Lecture/Lab – Cleanup & Skinning	
16	4/26	Final Exam 10:00 AM Critique Rig Demo	A7: Final Character Rig, Skinned with Facial Rig

* Works-in-Progress (WIP) of each assignment should be shown in lab and uploaded to webcourses. Failure to show or upload works-in-progress will lower your grade on the assignment by 5% or more.

**Academic
integrity**

The UCF Creed

Integrity, scholarship, community, creativity, and excellence are the core values that guide our conduct, performance, and decisions

Integrity: I will practice and defend academic and personal honesty

Scholarship: I will cherish and honor learning as a fundamental purpose of my membership in the UCF community

Community: I will promote an open and supportive campus environment by respecting the rights and contributions of every individual

Creativity: I will use my talents to enrich the human experience

Excellence: I will strive toward the highest standards of performance in any endeavor I undertake

Honor Code and Intellectual Property

Here are some guidelines:

- Academic dishonesty in any form will not be tolerated (this includes technology and media pirating).
- Students should not copy, trace, or rotoscope work of others in this class.
- If you reuse work that you did for another course or project, you must cite the source, including the author (yourself), date and venue of publication.
- If you use any language (even a phrase), imagery, sound or other data that was not explicitly created by you as part of this project, you must properly cite the work in the presentation or product itself.
- Penalties for incorrect management of intellectual property may include failure of the course itself, and disciplinary action by the School, College or University.

Collaborative Work expectations:

1. Every student is expected to contribute to the project at hand and complete required individual assignments on time.
2. Students are expected to communicate with each other respectfully and politely in order to get things done, improve procedures, work out issues, and deal with changing conditions.
3. Students are expected to cooperate peacefully in order to achieve productivity and meet goals and deadlines.
4. Students are expected to actively problem solve to complete assigned work correctly and efficiently.
5. Students are expected to take initiative to discuss any issues with their team members first, then if not resolved, with the faculty.

I, (print name) _____,

Honor Code Agreement

with PID _____, have read the following Honor Code and agree to abide by its terms.

Signed: _____ Date _____