Instructor: Tom Austin
Office Location: Art 222
Telephone: 408 924 4661
Email: tomcaustin@yahoo.com
Office Hours: TuTh 11:30 PM - 12:00 PM
Class Days/Time: TuTh 03:00PM - 5:50PM
Classroom: Art 222

Course Description

The goal of this class will be to introduce the student to more advanced Maya methods used in games to create characters. All of the techniques are equally applicable to film.

In 51 you learned (hopefully!) the basics of polygon modeling. Most of your modeling to date should largely have been creating non-organic objects. Now you will focus on organic modeling.

You will also be introduced to the idea of a production pipeline. This will expose the students to a variety of jobs and specializations, that they may previously been unaware existed and reinforce the importance of producing quality products, so that people downstream aren't plagued by your sloppy modeling, etc.

This broad survey will require us to use some other programs other than Maya, which will be our main focus. Maya is really a "hub" program. All things in production go in and come out from Maya, but we also need to learn/use other programs to support our Maya efforts. Primarily we will be using Photoshop. It is expected that you should have at least a glancing familiarity with that program. In addition, we will begin using ZBrush. It is not expected that you are familiar with that program and much class time will be spent familiarizing you with it.

At the end of the day, even if you fully intend to be a concept artist there will be value in this class. First and foremost, many leading studios (like DREAMWORKS!) won't even hire concept artists who don't know 3D! Secondly, at the very least your experience modeling a character will better inform your designs in the future. You will have some experience modeling and will avoid some common poor 3D designs.
Because of the nature of 3D, we will of necessity, have to spend lots of time on "technique" to arrive at realistic results.

This should never distract you from your primary mission to create good art! You will utilize all of your art training and add to it in this class.

There is no room to hide in 3D land! Your knowledge and depiction of form must be accurate as well as your breakdown and reproduction of the surface qualities of an object and how it interacts with light. There are no shadowy areas with which to hide your lack of understanding of light and form!

**Course Goals and Student Learning Objectives**

(Insert goals and objectives here. Objectives must be measurable, specific, and time related. Sequential numeration of GE/SJSU studies learning outcomes followed by course learning outcomes.)

Learn to use Autodesk Maya (or really any 3D package) to recreate non-organic objects in 3D.

Learn to use ancillary programs, such as Adobe Photoshop, etc., to aid in the creation of textured models that replicate the look and fidelity of the reference given.

Learn skills and working methods/ethos of industry pipelines, to create professional content that could be used in games or cinema and to do so in a timely fashion, while under pressure.

**Course Content Learning Outcomes**

Upon successful completion of this course, students will be able to:

LO1 - Model using a 3D package, any non-organic object in 3D, using current industry practices.

LO2 - Create custom UV Mapping coordinates to facilitate the application of textures to their 3D objects.

LO3 - Create custom textures in Zbrush, Maya and Photoshop, that will be applied to their 3D models, making them appear realistic.

LO4 - Prepare their 3D object and export it into a game engine.

LO5 - Create appropriate presentation materials to show case their work in a professional portfolio/reel.
Required Texts/Readings

Textbook
**Digital Modeling**, William Vaughan

**ISBN-10:** 0321700899
Digital Book Prefered

Other Readings

This book has a tremendous amount of information especially for sculpting clothing and we will reference a lot. It's not required but highly recommended.

**ZBrush Studio Projects: Realistic Game Characters**, Ryan Kingslien

**ISBN-10:** 047087256X

This is one of my favorite books especially when working between Zbrush and Maya..

**ZBrush Book–Digital Sculpting Human Anatomy**, Scott Spencer

Other equipment / material requirements

You will need to buy a memory stick with as much memory as you can afford.

Or better yet, a portable hard drive. Again, the bigger the better! You can easily get 1 TB for under a hundred bucks, although a 500 GB will easily suffice...

Classroom Protocol

• Be on time. Do not use computers during lectures. Clean up the class room the last 5 minutes of class. Respect other students when they have the floor. Kind of like kindergarden but with bigger computers.
Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic calendar web page located at http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

Assignments and Grading Policy

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>40.00%</td>
</tr>
<tr>
<td>Class Progress</td>
<td>20.00%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Final</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Grading information:**

The Tutorials or book lessons and the class participation will be graded differently than the assignments. The assignments make up your base grade and are the most important! The book lessons and the class participation scores will adjust your assignment grade up or down.

Grading Percentage Breakdown

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>94% and above</td>
<td>A</td>
</tr>
<tr>
<td>93% - 90%</td>
<td>A-</td>
</tr>
<tr>
<td>89% - 87%</td>
<td>B+</td>
</tr>
<tr>
<td>86% - 84%</td>
<td>B</td>
</tr>
<tr>
<td>83% - 80%</td>
<td>B-</td>
</tr>
<tr>
<td>79% - 77%</td>
<td>C+</td>
</tr>
<tr>
<td>76% - 74%</td>
<td>C</td>
</tr>
<tr>
<td>73% - 70%</td>
<td>C-</td>
</tr>
<tr>
<td>69% - 67%</td>
<td>D+</td>
</tr>
<tr>
<td>66% - 64%</td>
<td>D</td>
</tr>
<tr>
<td>63% - 60%</td>
<td>D-</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
</tr>
</tbody>
</table>
Below I have broken down how I arrive at my grades. This should serve mainly to help you understand the priorities I place on different aspects of my grading evaluation.

Production: 50%

• How closely does the final product match the concept art, reference, or general idea of the project as described to you? This is by far the most important criteria. All else can somewhat be forgiven, but you must meet the visual expectations!
• Does it look realistic and/or convincing for its intended function? If the concept art was unclear or inaccurate, have those deficiencies been corrected in a way that passes muster? Your audience should be unaware of any deviation and be visually convinced of the soundness of your asset.

Completeness and Pipeline/Feedback ready: 30%

• Does it look finished by measure of the examples of the instructor's and previous students work as shown? In the case of the industry, there will be plenty of in-house work and work being done by other studious, by which to judge the merits of your work.
• Is it finished enough to receive appropriate feedback for the stage of development, whether WIP or finish. Even something that is WIP, should still be "done" enough to allow for feedback at certain points in the process.
• Is it ready to hand off, or is there some re-work necessary? It must be clean and ready for someone else to work on at all points in the process!

Implementation of Directions: 20%

• Does the work show that the procedures and working methods in the lecture and the lecture notes were followed and implemented correctly? Or in the industry, that your studio's practices were implemented?
• Were things submitted correctly? For class this means placed on the server in the right folder, using Maya project folders and having trimmed them appropriately.
• Was the naming convention adhered to?
• Were the correct type of files used and placed in the right folders?

Artistic Merit: + modifier (this provides a little bump for your grade if it meets this criteria)

• Does the final product transcend the media?
• Is there any kind of wow factor, especially in light of limitations and difficulties of 3D?

b. Penalty (if any) for late or missed work: Work is considered late if it is not on the server before class starts! Always turn in what you have no matter how atrocious! Not turning in anything is an automatic F!!!

LATE WORK WILL NOT BE ACCEPTED!!! I will not look at work that was done in class on the day it was due! Class time is to be used for listening and paying attention, not doing work that should have been done prior to class.
The only exception will be if you have PRIOR to class contacted me and RECEIVED my APPROVAL for a late submission. Sending me an email a half an hour before class and not getting a reply from me does not count!

c. Extra Credit and Redos: There may be opportunity for extra credit to be earned and for assignments to be resubmitted. This will be up to my discretion and should not be relied on to improve your grade.

d. Family Emergencies and other Crisis’s: All family emergencies or other life crisis’s will require a doctor’s note for verification. I will work with any student to adjust the curriculum to take into account any authenticated emergency. If possible all efforts should be made to notify in advance.

It is expected that some form of communication in a timely fashion will be received by me regarding any difficulties. Do not drop out for weeks at a time and then expect to return to class without some notice of your difficulties.

Also, if you are feeling overwhelmed with school, please let me know and or seek out help at Student Services. I am happy to try and work something out, but you have to let me know! You are here to learn, not to suffer!

e. Incomplete: I will only give out an incomplete if you have or are experiencing a compelling family emergency and/or life crisis. You have to complete the work on your own and have one year to submit all final materials for consideration or your grade reverts to an F.

University Policies

CHEATING

Don’t do it! You are required to create your own content from scratch in this class, it is completely IMPERMISSIBLE to copy, reference, borrow, or otherwise use another student’s work or something you scrounged up on the internet and attempt to pass it off as your own work!!!

Maya has DNA. Everything you create has a finger print and if I get wind of anyone cheating, I will immediately, bring action against the transgressor. At the very least you will fail my class and at worst you could possibly be expelled from the university! See below...

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University’s Academic Integrity policy, located at http://www.sjsu.edu/senate/S07-2.htm, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and
Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Policy S07-2 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Disability Resource Center (DRC) at http://www.drc.sjsu.edu/aec to establish a record of their disability.

Accommodation to Students’ Religious Holidays

San José State University shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the date that he/she will be absent. It is the responsibility of the instructor to make every reasonable effort to honor the student request without penalty, and of the student to make up the work missed. See University Policy S14-7 at http://www.sjsu.edu/senate/docs/S14-7.pdf.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.
You will submit your work via Google Drive unless otherwise directed.

I will specify where and how to post your assignments and book work.

You can submit work either in the lab as shown below or remotely using **Cyberduck**.

Procedures for accessing the server are outlined in this lecture, **lec_server.pdf**.

User names and passwords will be supplied in class.

**Groups you need to join!**

This one is **mandatory** for my class!

[http://groups.yahoo.com/group/SJSUDigitalAnim/](http://groups.yahoo.com/group/SJSUDigitalAnim/)

All animation students should join this Yahoo group for department information.

[http://groups.yahoo.com/group/SJSU_Animation_Illustration/](http://groups.yahoo.com/group/SJSU_Animation_Illustration/)

All animation students in 114 and above should be members of this group for ACME Transmission Updates

[http://groups.yahoo.com/group/SJSU_ACME/](http://groups.yahoo.com/group/SJSU_ACME/)

**Web sites of interest…**

A good place to go for tutorials and plugins.


A great forum for discussions, tutorials and help, especially help!

[www.cgtalk.com](http://www.cgtalk.com)

Good discussions on rigs and such…


Great site, lots of industry pros posting work.

Obviously not Maya-centric but has a lot of cool stuff, interviews with people working in movies and such, also lots of indirect Maya discussions.


# ANI 130A - 02 Digital Modeling I

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, Readings, Assignments, Deadlines</th>
</tr>
</thead>
</table>
| 1    | 01/28/16   | First day of class. Handle add/drops, review green sheet, etc.  
|      |            | Take individual pictures for modeling.  
|      |            | Read the file Modeling the head.pdf.  
|      |            | Start reading chapter 9 modeling the head.  
|      |            | Create Eye Ball  
|      |            | Eyeball due Tuesday  
|      |            | Start modeling ear |
| 2    | 02/04/16   | Start model of Individual Head  
|      |            | Ear due Tu  
|      |            | Start modeling head  
|      |            | Progress points for Head model - Th |
| 3    | 02/11/16   | Eyes / Ear Maya UV map in Zbrush  
|      |            | Head model due - Tu  
|      |            | Progress points for attachingeye/ear- Th  
|      |            | finish head do rough UV map |
| 4    | 02/18/16   | Paint Sculpt / Texture in Zbrush. Finish head  
<p>|      |            | Maya model finished and due - Tu |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
|   |   | Individual Crits,  
|   |   | start Zbrush, UV, Texture, Paint  
|   |   | Progress points for Crit - Th  
|   |   | Continue Paint and texture head in Zbrush  
|   |   | Start Hair  
| 5 | 02/25/16 | Individual head due  
|   |   | Start Model Character head/ helmet  
| 6 | 03/03/16 | Color Head  
| 7 | 03/10/16 | Head due Start Hands/Gloves  
| 8 | 03/17/16 | Hand/Gloves due start Torso /Upper Body  
| 09 | 03/24/16 | Upper Torso due start Lower Body  
| 10 | 03/31/16 | Spring Break  
| 11 | 04/07/14 | Full body due start Model Hair/ or Weapon/ item  
| 12 | 04/14/14 | Work on hair  
| 13 | 04/21/14 | Hair due  
| 14 | 04/28/14 | Ncloth/ texture cloth in Zbrush  
| 15 | 05/05/14 | Cloth due / full crit  

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Desciptiion</th>
</tr>
</thead>
</table>
| 16| 05/12/14| Last day of class Final crit.  

credit for making changes from last week.  

| 18| 05/24/16| Final exams  

2:45-5:00 |

**Note:** All dates and assignments are subject to change! This is a tentative schedule designed to provide you with some basic guidance. Please do not make travel plans, etc. without first consulting me as to the state of the schedule!