

**San José State University**  
**Animation/Illustration – Department of Design**  
**21867, Digital Modeling I, 01, Spring, 2019**

**Course and Contact Information**

Instructor:	Dave Gustlin
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Office Hours:	MoWe 11:00AM – 11:30AM
Class Days/Time:	MoWe 12:00PM - 2:50PM
Classroom:	Art 222
Prerequisites:	ANI 024 and Allowed declared Animation major only

**Course Format**

**Important Web Pages and Class Messaging**

ANI Program Google group (mandatory for ANI students): [www.shmgoogle.com](http://www.shmgoogle.com)

**Course Description**

We will continue to improve the foundation modeling and texturing skills we learned in 51A. We will shift our focus from non-organic objects to modeling organic objects, with all the inherent challenges implicit in those shapes. We will “fold” in to this pipeline, the use of ZBrush. ZBrush is a robust, sculpting package that is an industry standard. It’s potential uses are many fold, and can be applied to visual development, as well as modeling. We will continue to use Maya as a “hub” program, and Substance Painter as our go to texturing program. It is expected that you will have a working knowledge of these two programs.

**Course Goals**

The goal is to add organic modeling for animation into the fold, and prepare the student for the creation of portfolio pieces in the advanced class.

**Course Learning Outcomes (CLO)**

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

1. Model organic objects.
2. Character modeling pipeline as practiced in the video game industry.
3. ZBrush

4. Advanced UV Mapping, including “pelt mapping”
5. Digital sculpting
6. Re-topology
7. Maya to ZBrush pipeline
8. Edge looping for deformation.
9. Basic rigging, weight painting, and corrective shapes.

## Required Texts/Readings (Required)

### Textbook

No Textbook is required for this class.

### Other Readings

None.

### Other technology requirements / equipment / material

Portable memory is handy, but not required.

Additionally, you may want to invest in a CINTIQ21 pen. They run about 60 dollars. Note not all Wacom pens will work on the Cintiqs!



## Course Requirements and Assignments (Required)

In this class we will learn the basics of 3D Modeling. We will use Autodesk's Maya, but the techniques apply to most 3D packages. Maya is a broad program with many facets besides modeling. We will touch on the other functions as necessary, but will drill deep on the modeling side.

In addition to Maya, we will use Photoshop and a program called Substance Painter. A cursory familiarity with Photoshop is assumed, but Substance Painter will be examined in full.

The commercial application of 3D knowledge is most visible in the entertainment industry, with video games and film, but there are many other avenues, product advertising, military simulations, phone apps, etc.. The burgeoning field of 3D printing holds boundless potential for 3D modeling.

There will be major projects each weekend during the semester in addition to daily homework between all classes. All projects will be held to strict standards and a student's grade is dependent on how well they—and their team—meet these standards within the deadlines given.

For more detailed information about classroom activities, please refer to the handouts distributed each week for each project. Each assignment is designed to progressively and cumulatively build towards the above-listed learning outcomes. All of the above is subject to change with fair notice.

*Insert descriptions of course requirements and assignments here. Explain how course requirements, reading materials, learning activities, and assignments contribute to or are aligned with course learning outcomes. Include information about general expectations, roles and responsibilities of the students, due dates and assignment weights. Review the following sources and policies with your students:*

- [University Syllabus Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) at <http://www.sjsu.edu/senate/docs/S16-9.pdf>.
- Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

The [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf), *Course Syllabi* (<http://www.sjsu.edu/senate/docs/S16-9.pdf>) requires the following language to be included in the syllabus:

“Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.”

### **Final Examination or Evaluation**

*Insert descriptions of your final examination or evaluation information here. More details can be found in [University policy S17-1](http://www.sjsu.edu/senate/docs/S17-1.pdf) (<http://www.sjsu.edu/senate/docs/S17-1.pdf>) which states that*

“Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment.”

### **Grading Information (Required)**

*Specify your grading policy here. Provide rubrics and explain how grades are assessed and assigned. Allow multiple opportunities to give feedback on student learning. Use rubrics or examples to explain and show students how they can assess themselves or check their own learning. More guidelines on grading information and class attendance can be found from the following two university policies:*

- [University Syllabus Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>)
- [University Attendance and Participation Policy F15-12](http://www.sjsu.edu/senate/docs/F15-12.pdf) (<http://www.sjsu.edu/senate/docs/F15-12.pdf>)

## **Determination of Grades**

Students will be held accountable for meeting all deadlines with acceptable work. Directions given in class and for assignments must be followed accurately or grades will be lowered accordingly. Late work will not be excepted unless the instructor has given prior approval. Students are responsible for completing all work assigned during any absences, and absent students must make arrangements for their work to be turned in (on due date) and criticism recorded, by another student. No extra credit projects will be accepted for this class.

Class participation will be assessed and includes active engagement in critiques, intelligent questioning, peer mentoring, and proactive learning behavior.

Obviously, the quality of the work, both conceptually and its final execution, is the primary component of the grade; but as mentioned above, the student's grade is also determined by their professional attitude, their conduct, their work ethic, and their ability to meet their deadlines and the educational challenges posed by the assignments. Above all, students are graded on the intelligence they demonstrate while they pursue, question, attempt, evaluate, struggle, succeed and/or fail at their assignments.

While it is technically possible to pass this class with a grade as low as a D-, students should be aware that grades below the "B" range demonstrate a concerning lack of effort and are not considered even marginally adequate for pursuing a career in the entertainment or game industries; they also forecast poor professional prospects within our industry post-graduation. Students receiving grades of C+ or lower should therefore be on notice that their work as completed is barely adequate to graduate and better efforts are necessary if they are to pursue this field as a career. They may want to begin planning for a career path outside our industry.

Note that "All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades." See University Policy F13-1 at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

Grades may be reviewed privately at any time by arranging a meeting with the instructor. If you want to know your grade—ask.

Late work due to class absence, or any other reason, will not be accepted for grading without prior authorization from the instructor well in advance of deadlines and only for reasons that conform to professional standards. Students are responsible for completing all work assigned during any absences, and absent students must make arrangements for their work to be turned in (on due date) by another student. If an absentee student turns in work, they should make arrangements with another student to take notes for them in regards to criticisms they need to address.

Students should expect that some assignments will continue to receive criticism requiring further work on their part for several weeks, or even months, past the original deadline for the project. Failure to incorporate such changes into their work will result in the work being considered "unfinished" in regards to grading.

"Incomplete" grades are only given rarely, and only in the event of compelling personal or family emergencies and/or crises. If you do receive an incomplete you will have to complete the work on your own and have one year to submit all final materials for consideration or your grade will revert to an F.

## Grade Weighting:

Attendance/Participation	10%
Quizzes	20%
Regular Assignments*	50%
The FINAL	20%

A grades indicate excellent work.  
B grades indicate above average work.  
C grades indicate average work.  
D grades indicate below average work.  
F grades are failing.

A plus = 100% to 97%  
A = 96% to 93%  
A minus = 92% to 90%  
B plus = 89% to 87%  
B = 86% to 83%  
B minus = 82% to 80%  
C plus = 79% to 77%  
C = 76% to 73%  
C minus = 72% to 70%  
D plus = 69% to 67%  
D = 66% to 63%  
D minus = 62% to 60%  
F = 59% to 0%

Students should expect and plan their schedules to accommodate significant “homework” periods after each class session. Students are expected to bring and maintain prepared materials and be ready to work at the beginning of—and throughout—each class session. Failure to do so will affect one’s grade. It is always the student’s responsibility to be prepared for class even if absent from the previous class.

Students will receive significant homework assignments every class, with potentially even assignments via email during the week. Several assignments may ultimately overlap at times, and students should expect a considerable amount of work in their final semester.

A final critique will be held on the final exam day in the usual classroom at the time and date indicated by the university final exam schedule. Please consult the [sjsu.com](http://sjsu.com) website to reserve those times in your calendar immediately.

For further information about classroom activities, please refer to any handouts distributed for assignments. (Available on the CANVAS.)

## **Classroom Protocol**

*Insert your expectations for participation, attendance, arrival times, behavior, safety, cell phone use, etc. here.*

All Animation/Illustration students are expected to conduct themselves in a professional manner at all times. See the bulleted list below for general program policies and expectations.

Whether in class or working after hours, students must respect the facilities and fellow students and are expected to present themselves and their work in a clean professional manner. Students will be held accountable for both classroom participation and contributing to the creation of a positive atmosphere for education.

Classes and events are to be treated as business appointments and students are expected to be in attendance, fully prepared, and on time. Fully prepared means having all necessary materials needed to work on class projects, having prepared according to instructions, and having made significant progress on assignments from the previous class. Failure to accomplish any of the above will significantly lower your grade.

The occasional absence is unremarkable, but if an absence is unavoidable, students are expected to notify the instructor immediately, and contact their peers to both turn in work on the due date and stay current with class assignments they may have missed.

Cell phones should be silent and should not be utilized during class unless otherwise directed. Students should refrain from eating food others can smell. At the end of classes, students are expected to leave the classroom cleaner than they found it, push in chairs, etc. During breaks and immediately before and after class, students should be conscious of the overall noise level in the room and try to minimize it in order to allow for the private instructor/student conversations that often occur.

Finally, students should maintain an awareness of the safety of their surroundings, belongings, and classmates. In particular, when working in the building and entering or leaving after hours, students should accompany one another in the interest of safety or call the University Police for an escort. Report any suspicious persons or behavior to the University police at 408-924-2222 or by picking up a blue emergency phone.

## Animation/Illustration Program Policies

- Students must arrive to class on time with materials ready to work.
- Cell phones must be silenced.
- Private conversations during lectures and class discussions are not permitted.
- No checking email or using laptops for activities unrelated to the class.
- No playing personal audio through speakers, use headphones only.
- Do not prop open any doors.
- Do not leave valuable items unattended.
- Do not leave the classroom without cleaning your area.
- Be courteous to others, keep private conversations quiet.
- Aromatic foods are not allowed in any of the classrooms or labs.
- Please be attentive to your personal hygiene.

### Computer Labs: Violation of rules will result in loss of lab access for the whole semester

- No food or beverages by the workstations.
- Do not change the connections on the equipment.
- Do not move any equipment in the lab.
- No traditional painting.

## University Policies (Required)

Below is all we will post. We will no longer post individual descriptions and links to academic integrity, counseling, etc.

Per University Policy S16-9 (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant information to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/> Make sure to review these university policies and resources with students.

## Schedule - SUBJECT TO CHANGE\*

Wk.	Mon.		Wed.	
1	1/28	First Day	1/30	Lec: ZBrush Intro
2	2/4	Due: ZBFun	2/6	
3	2/11	Due: cutrHat_open	2/13	
4	2/18	Due: cutrHat_crown	2/20	Due: cutrHat_dets
5	2/25	Due: cutrHat_gameUVs	2/27	Due: Due: cutrHat_SP
6	3/4	Due: Due: cutrHat_FNL	3/6	Due: ZBFun
7	3/11	Due: boot_baseMesh	3/13	Due: boot_HRwrinkles
8	3/18	Due: boot_HRdets	3/20	Due: boot_gameUVs
9	3/25	Due: boot_xNormal	3/27	Due: boot_SP
10	4/1	SPRING RECESS	4/3	SPRING RECESS
11	4/8	Due: boot_FNL	4/10	Due: ZBFun
12	4/15	Due: boxTroll_base	4/17	
13	4/22	- No Class-	4/24	Due: boxTroll_body
14	4/29	Due: boxTroll_head	5/1	
15	5/6	Due: boxTroll_game	5/8	Due: boxTroll_rig
16	5/13	Last Day of Class Due: boxTroll_pose	5/15	FINAL**, 0945-1200

\* - with fair notice.

\*\* - Please check with me before booking flights, etc. to make sure nothing has changed.

