

**San José State University Animation/Illustration –
Department of Design 21597, Digital Modeling 01,
Spring 2020**

**Course and Contact
Information**

Instructor: Dave Gustlin

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Office Hours: MoWe 7:30AM – 8:00AM

Class Days/Time: MoWe 12:00PM - 2:50PM

Classroom: Art 222

Prerequisite: Allowed Declared

Majors: Animation

Important Web Pages and Class Messaging ANI Program Google
group (mandatory for ANI students): 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” into this pipeline, the use of ZBrush. ZBrush is a robust, sculpting package that is an industry standard. It’s potential uses are many and varied. It can easily 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.

We will also be fleshing out, in detail, the production pipeline as practiced in video games. This will include placing our models into the Unreal4 engine.

Course

Goals

Course Description 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. Even if your focus is other than modeling in this department, the skills you will learn in this class can be applied to aid your vis dev work, and make you a more valuable, multi-skilled employee in the workforce.

Course Learning Outcomes (CLO)

Introduction to 3D Modeling, 23045, Spring, 2019 Page 1 of 9

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

CLO1 - Model organic objects

CLO2 - Character modeling pipeline as practiced in the video game industry

CLO3 - ZBrush

CLO4 - Advanced UV Mapping, including "pelt mapping"

CLO5 - Digital sculpting

CLO6 - Re-topology

CLO7 - Maya to ZBrush pipeline

CLO8 - Edge looping for deformation

CLO9 - 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.

You need to get a Cintiq pen (shown below) **ASAP!** Not all Wacom pens are usable with the Cintiq!



Course Requirements and Assignments (Required)

Regular attendance for this class is critical! Almost all of the material pertinent to the completion of assignments is presented in lecture format. Recordings of these lectures will be available for reference, **BUT should not be used as a substitute for regular attendance!**

Additionally, as the semester progresses, the assignments will be more cumulative in nature. Failing to attend and falling behind will make it very difficult to make up. Of course, exception and accommodation will be made for verified illness, family emergencies, etc.

It is very important to come and listen, take notes, and participate in class discussions and critiques. There is lots to be learned both formally and informally.

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.

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>)

Introduction to 3D Modeling, 23045, Spring, 2019 Page 3 of 9

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 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.)

Academic Integrity policy (Academic Senate Policy F15-7)

"The University's Academic Integrity policy, located at <http://www.sjsu.edu/senate/docs/S07-2.pdf>, 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 <https://www.sjsu.edu/studentconduct/>

Instances of academic dishonesty will not be tolerated by the Animation/Illustration program. Cheating on exams, plagiarism, presenting the work of another as your own, or the use of another person's ideas without giving proper credit will result in AUTOMATIC EXPULSION FROM AND FAILURE OF THE COURSE, with possible expulsion from the Animation/Illustration Major. A second offense will result in IMMEDIATE EXPULSION from the Animation/Illustration Major.

This includes but is not limited to copying someone else's imagery, altering someone else's imagery, altering a pre-existing 3D model, tracing or copying animation, and submitting someone else's notes for a grade.

Introduction to 3D Modeling, 23045, Spring, 2019 Page 5 of 9

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.

- 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	1/27	First Day Intro., syllabus, etc.	1/29	Policies & Procedures ZBBall
2	2/3	cuirassCasq	2/5	cuirassCasq
3	2/10	cuirassCasq	2/12	cuirassCasq
4	2/17	cuirassCasq	2/19	cuirassCasq
5	2/24	ZMod_shoe	2/26	ZMod_shoe
6	3/2	ZMod_shoe	3/4	ZMod_shoe
7	3/9	head	3/11	head
8	3/16	head	3/18	head
9	3/23	eye	3/25	eye
10	3/30	-Spring BREAK-	4/1	-Spring BREAK-
11	4/6	-no work DUE-	4/8	grpProj_envir
12	4/13	grpProj_envir	4/15	grpProj_envir
13	4/20	grpProj_envir	4/22	grpProj_envir
14	4/27	grpProj_envir	4/29	Final Proj.
15	5/4	Final Proj.	5/6	Final Proj.
16	5/11	Final Proj.	5/13	-No Class-
17	5/19	FINAL**, 0945-1200,		
18				

* - with fair notice.

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

