

ANI 51A: Introduction to 3D Modeling

Course Overview

All Animation/Illustration majors at SJSU are expected to have some proficiency in digital 3D sculpting and animating techniques. **ANI 51A** is the foundation course for 3D modeling.

ANI 51A bears a superficial resemblance to introductory CG courses at many schools, but it should be understood that this class is a focused and in-depth approach that should **not** be considered equivalent to the many courses of its type which emphasize *breadth*. A transferring student who has taken a digital class that covered modeling, lighting, rigging, animation, and other topics should **not** assume they have the equivalent modeling expertise in depth that this course provides.

The primary goal of **ANI 51A** is to teach the student 3D modeling techniques as practiced in industry today. At the conclusion of this course, the student will be prepared for an internship, and proficient enough to continue on to **ANI 130A: Advanced 3D Modeling**.

The principal software is Autodesk's Maya, but the principles and practices taught in this class could easily be applied to other 3D modeling packages. Maya is used not only as a 3D modeling program, but also as a "hub" program—all things in digital production pass in, out, and through Maya.



Student Work: Daniel Wilkes

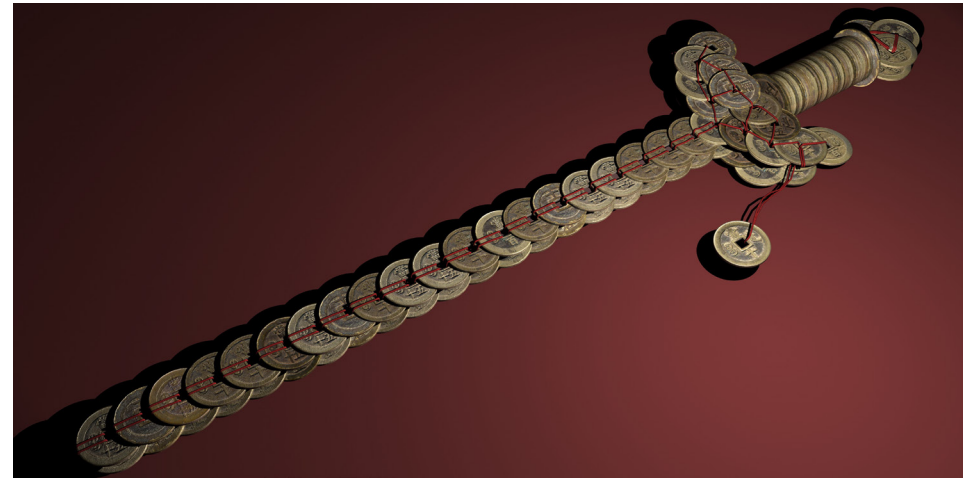
Low-Poly Model with Normal map backed from a High-Poly Model and Color, Spec, and Bump maps created in Photoshop.

ANI 51A: Minimum Standards

For articulation purposes—at a minimum—students would be expected to possess demonstrable competency with the following skills:

- Capable understanding of working in a production pipeline/environment.
- Comfortable creating almost any representational, non-organic object using digital 3D software, whether realistic or whimsical.
- In addition to modeling any realistic 3D object, the ability to color it, texture it, light it, and produce quality renderings in Maya.
- Fundamental knowledge of Adobe Photoshop as it applies to creating color, spec, and bump maps used in the creation of 3D models.
- Able to create realistic digital models which display a high-level of aesthetic sensitivity and judgment.
- Create high-poly count objects, bake normal maps from them, and apply these maps to corresponding low-poly count objects.
- To be ready for subsequent ANI modeling courses, students must be able to map to reference with high fidelity as these examples demonstrate.

Articulating students will be expected to be capable of working at a comparable level to the images displayed here.



Student Work: Anna Corrales

Low-Poly Model with Normal map backed from High-Poly Model. Spec, Color, and AO maps created using Photoshop.



Student Work: Madeline Kepics

Low-Poly Model with Spec, Bump and Color map created in Photoshop.

Alternative Means of Credit

SJSU A/I is aware that most schools do not offer any courses that are clearly equivalent to this course. Thus, it is possible that a given student may arrive at SJSU with the prerequisite skills, but without the formal course credit. To address such situations, SJSU A/I is prepared to test incoming students for the competencies expected for this course. Such tests can be conducted during the first week of any given semester. Successful applicants can have the course waived in favor of an elective of their choice.



Student Work: Tom Austin

Low-Poly Model with Color, Spec and Bump maps created in Photoshop.