



## Master Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

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**Semester:** Fall  
**Course Prefix:** ART  
**Course Title:** 3D Sculpting

**Year:** 2025  
**Course and Section #:** 4290-001  
**Credits:** 3

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### ***Course Description***

Teaches 3D digital sculpting techniques needed to create finished 3D illustrations and/or 3D assets to be used as reference for 2D illustration. Studies model detailing, texture mapping, lighting, and rendering of 3D computer reference or as standalone 3D illustration.

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### ***Course Attributes***

This course has the following attributes:

- ☐ General Education Requirements
- ☐ Global/Intercultural Graduation Requirements
- ☐ Writing Enriched Graduation Requirements
- ☒ Discipline Core Requirements in Program
- ☐ Elective Core Requirements in Program
- ☐ Open Elective

Other: *Click here to enter text.*

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### ***Instructor Information***

**Instructor Name:** Steve Doran

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### ***Student Learning Outcomes***

Describe various digital sculpting programs, their differences, and strengths and weaknesses;

Effectively use digital sculpting techniques to create artwork;

Apply advanced principles of rendering;

Exhibit advanced visual problem solving and conceptual thinking in projects and assignments;

Offer meaningful critique to other students.

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### ***Course Materials and Texts***

Desktop Computer or Laptop

3D software i.e. ZBrush

Sketchbook and proper drawing materials

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## ***Course Requirements***

### **Course Assignments, Assessments, and Grading Policy**

## **Assignments**

1. *Introduction to ZBrush and Digital Sculpting* – Learn the ZBrush interface, tools, and the basics of navigating 3D space.
2. *Sculpting Fundamentals* – Practice using brushes to manipulate basic forms and understand digital clay behavior.
3. *Blocking Out a Base Mesh* – Learn how to build a basic character or object using simple shapes.
4. *Understanding Forms and Silhouettes* – Focus on large forms and readable silhouettes to establish a strong design.
5. *Working with Dynamesh* – Use Dynamesh to freely experiment and merge shapes during early sculpting stages.
6. *Sculpting Anatomy Basics* – Begin studying anatomy to build more believable human or creature forms.
7. *Refining Primary and Secondary Forms* – Develop a structured workflow by refining forms in logical sculpting stages.
8. *Using ZRemesher and Subdivision Levels* – Learn how to retopologize a model for cleaner sculpting and detail work.
9. *Adding Detail with Alphas and Brushes* – Use custom brushes and alphas to add skin texture, pores, and fine details.
10. *Sculpting Review and Feedback* – Present your sculpt for critique and refine it based on instructor suggestions.
11. *Hard Surface Sculpting Techniques* – Explore methods for creating armor, props, and mechanical elements in ZBrush.
12. *Polygroups and Masking* – Organize your sculpt using polygroups and masking for better control during detailing.
13. *Clothing and Fabric Techniques* – Sculpt clothing and accessories using folds, tension, and layering.
14. *Hair and Fur Approaches* – Experiment with stylized or realistic hair techniques using ZBrush grooming tools.
15. *Posing Your Character* – Use Transpose Master to pose your model and explore dynamic gesture.
16. *Sculpting Stylized vs. Realistic Characters* – Compare workflows and goals for different design aesthetics.
17. *Using IMM Brushes and Kitbashing* – Quickly build complex shapes and accessories using insert mesh brushes.
18. *Creating Props and Accessories* – Sculpt supporting elements to enhance your character or environment.

19. *Sculpting Creatures and Fantasy Designs* – Push anatomy and design to create original, imaginative characters.
  20. *Environmental Sculpting* – Use ZBrush to block out and detail rocks, trees, and terrain.
  21. *Rendering Basics in ZBrush* – Learn how to use BPR (Best Preview Render) and lighting for presentable renders.
  22. *Polypainting and Texture Painting* – Add color and detail using ZBrush's painting tools.
  23. *Surface Noise and Material Exploration* – Apply noise, matcaps, and shaders to push the sculpt's visual depth.
  24. *Creating a Turntable Animation* – Set up and render a rotating view of your final sculpt for presentation.
  25. *Exporting Your Model* – Learn how to export high-res meshes and textures for use in other software.
  26. *Final Sculpt Refinement* – Return to your project for final adjustments and enhancements.
  27. *Lighting and Composition in Renders* – Use light and shadow to enhance the dramatic presentation of your work.
  28. *Project Assembly and Presentation* – Prepare a final slide or showcase presentation with renders, turntables, and breakdowns.
  29. *Final Critique and Iteration* – Participate in a structured critique and refine any last-minute elements.
  30. *Final Showcase and Reflection* – Present your complete sculpt, review your growth, and discuss next steps in digital sculpting.
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## Course Completion:

Develop proficiency in digital sculpting software ( ZBrush).

Learn multiple professional workflows to create different results.

Cultivate an artistic eye for form, proportion, and detail.

Leave class with portfolio pieces that showcase competence in the software.

## Assessments

- did you meet the concept of the assignment
- did you meet the deadline/is the work complete
- did you follow strong design principles
- did you come up creative and fun solutions
- did you show technical mastery of materials

## Grading Policy

- A 90-100%
- A-90-92.9%
- B 80-89%
- C 70-79%

- D 65-69%
- E 0-64%
- UW indicates an unofficial withdrawal from class

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## Required or Recommended Reading Assignments

N/A

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## General Description of the Subject Matter of Each Lecture or Discussion

To further explore basic 3D sculpting fundamentals and techniques

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## *Required Course Syllabus Statements*

### Generative AI

AI programs are not a replacement for your human creativity, originality, and critical thinking. Writing, thinking, and brainstorming are crafts that you must develop over time to develop your own individual voice. At the same time, you should learn how to use AI and in what instances AI can assist you.

The use of generative AI tools (e.g. ChatGPT) is permitted in this course for the following activities:

- Brainstorming and refining your ideas;
- Finding information on your topic;
- Refining Style direction.

The use of generative AI tools is not permitted in this course for the following activities:

- Impersonating your work in classroom contexts, such as by using AI tools to compose discussion board prompts/responses assigned to you or content that you put into a Teams/Canvas chat.
- Generating artwork for class assignments.
- Generating final artwork.

You are responsible for the information you submit and that it does not violate intellectual property laws, or contain misinformation or unethical content. Your use of AI tools must be properly documented and cited in order to stay within university policies on academic honesty.

Any student work submitted using AI tools should clearly indicate what work is the student's work and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, please reach out to me for a conversation before submitting your work.

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## Using Remote Testing Software

☒ This course does not use remote testing software.

☐ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of

remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

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## ***Required University Syllabus Statements***

### **Accommodations/Students with Disabilities**

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at [accessibilityservices@uvu.edu](mailto:accessibilityservices@uvu.edu) or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at [DHHservices@uvu.edu](mailto:DHHservices@uvu.edu)

DHH is located on the Orem Campus in BA 112.

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### **Academic Integrity**

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their [rights and responsibilities](#). In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in [UVU Policy 541: Student Code of Conduct](#).

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### **Equity and Title IX**

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office

for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – [TitleIX@uvu.edu](mailto:TitleIX@uvu.edu) – 800 W University Pkwy, Orem, 84058, Suite BA 203.

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### **Religious Accommodation**

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at [accessibilityservices@uvu.edu](mailto:accessibilityservices@uvu.edu). If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.