

# Course Description

Hands-on training in Autodesk Maya and Substance Painter. Students will build a 24 × 24 unit modular environment and props using primitives, polygon, curve, and NURBS workflows; unwrap and texture assets; version work daily with GitHub; and publish finished models on Sketchfab & ArtStation. A professional portfolio submitted to UVU's Animation & Game Dev program serves as the capstone.

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## Learning Outcomes

By the end of this course, students will be able to:

1. Navigate Maya's UI and create/modify primitives, polygon meshes, curves, and NURBS surfaces.
  2. Employ edge-loop, subdivision, and hard-surface modeling techniques.
  3. Generate clean UV layouts, pack UDIMs, and troubleshoot seams.
  4. Texture assets in Substance Painter using baked maps, smart materials, and custom masks.
  5. Integrate textures in Maya, set up Arnold look-dev renders, and prepare FBX exports.
  6. Version projects daily via GitHub and showcase work on Sketchfab & ArtStation.
  7. Assemble a cohesive 24 × 24 environment portfolio with reflective documentation and video overview.
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## Communication Protocol

All course communications will be conducted through Microsoft Teams. Please install the Teams app (desktop or mobile) and join our class team before Week 0. Use Teams chat for quick questions, direct messaging for private inquiries, and the General channel for announcements and discussions. Live class sessions will be hosted and recorded in Teams—recordings will be automatically posted in the class channel within 24 hours. Students are expected to check Teams at least once daily during the week and to

respond to any instructor messages within 24 hours on weekdays. Office-hour appointments may also be scheduled via Teams video call.

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## Required Software & Resources

- **Autodesk Maya** (educational license)
  - **Substance Painter** (educational license)
  - **GitHub** account & **GitHub Desktop**
  - **Sketchfab** and **ArtStation** accounts
  - **JetBrains Rider** (optional scripting integration)
  - Access to YouTube and UVU Library online guides
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## Assignments & Grading

- **Assignments:** Unit Assignments and Milestone Assignments

Each week you'll complete a quick, 1-point assignment designed to keep you moving steadily forward: submit clear images of your work in Canvas, include the GitHub URL(s) for your two commits, and attach a brief (~200-word) progress report. These weekly tasks are graded pass/fail—no surprises, just regular practice and accountability. Every four weeks, you'll tackle a more substantial, 10-point milestone: record a 1–2-minute unlisted YouTube video that walks through your progress, share your GitHub URL(s), and turn in another 200-word write-up. Milestones are evaluated with detailed faculty feedback and a rubric, giving you actionable advice and the chance to refine your work before moving on.

**Grading:** Pass/Fail with instructor feedback; revisions are allowed to improve grades. 10% penalty per day late.

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## Course Schedule

Week	Topic	Assignment
0	<b>Unit 0: Git &amp; GitHub Desktop Setup</b>	<p><b>Lab:</b></p> <ul style="list-style-type: none"> <li>• Install GitHub Desktop &amp; configure your GitHub account</li> <li>• Fork <a href="https://github.com/anthonyromrell/Essentials">github.com/anthonyromrell/Essentials</a></li> <li>• Clone your fork and make an initial commit (e.g., update README)</li> </ul> <p><b>Challenge:</b></p> <ul style="list-style-type: none"> <li>• Create a new branch, add <code>notes.txt</code> with a 2-sentence intro, commit on two separate days, push both commits.</li> </ul>
1	Unit 1: Maya Interface & Primitives	Unit 1 Lab & Challenge
2	Unit 2: Polygon Modeling Basics	Unit 2 Lab & Challenge
3	Unit 3: Edge-Loops and Edge Flow	Unit 3 Lab & Challenge
	<b>Milestone 1 Review</b> (after Unit 3)	Reflective Write-Up & Video
4	Unit 4: Curve Modeling & NURBS-to-Polygon	Unit 4 Lab & Challenge
5	Unit 5: Hard-Surface Techniques	Unit 5 Lab & Challenge
6	Unit 6: Organic Modeling Essentials	Unit 6 Lab & Challenge
	<b>Milestone 2 Review</b> (after Unit 6)	Reflective Write-Up & Video
7	Unit 7: UV Layout & Unwrapping	Unit 7 Lab & Challenge
8	Unit 8: UV Troubleshooting & Advanced Cuts	Unit 8 Lab & Challenge
9	Unit 9: Introduction to Substance Painter	Unit 9 Lab & Challenge
	<b>Milestone 3 Review</b> (after Unit 9)	Reflective Write-Up & Video
10	Unit 10: Advanced Substance Workflows	Unit 10 Lab & Challenge
11	Unit 11: Maya Shading & Look-Dev	Unit 11 Lab & Challenge
12	Unit 12: Asset Export & Publication	Unit 12 Lab & Challenge
	<b>Milestone 4 Review</b> (after Unit 12)	Reflective Write-Up & Video

<b>Week</b>	<b>Topic</b>	<b>Assignment</b>
13	Unit 13: Portfolio Assembly I	Draft Portfolio Layout
14	Unit 14: Portfolio Assembly II & Critique	Final Portfolio Submission

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## Required Course Syllabus Statements

### Generative AI

Use of generative AI tools (e.g. ChatGPT, DALL·E) is **allowed** in this course, provided students are **honest and transparent** about what content was AI-generated. AI-assisted work must be clearly cited; submitted work must remain at least **75 %** original student authorship.

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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. AS is located on the Orem Campus in BA 110. Deaf/Hard of Hearing services (ASL interpreters or transcribers) at [DHHservices@uvu.edu](mailto:DHHservices@uvu.edu) (BA 112).

### Academic Integrity

UVU fosters mutual trust. Original work must be produced and others' ideas cited. Faculty and students share responsibility for honesty and fairness. Students must know requirements for research, assessments, collaboration, study aids, and assistance. See UVU Policy 541: Student Code of Conduct.

### Equity & Title IX

UVU does not discriminate based on protected status, including race, color, religion, sex, gender identity/expression, age, disability, veteran status, pregnancy, etc., per Title IX and 34 C.F.R. 106. Inquiries: Title IX Coordinator at [TitleIX@uvu.edu](mailto:TitleIX@uvu.edu) or 801-863-7999 (800 W University Pkwy, Orem, 84058, BA 203).

### Religious Accommodation

UVU provides scheduling and due-date modifications for religious observances. To request, submit written notice to the instructor and Director of Accessibility Services ([accessibilityservices@uvu.edu](mailto:accessibilityservices@uvu.edu)) as soon as possible, including date, time, and brief conflict description. A dedicated space is available on campus for meditation, prayer, or reflection.