ANGM 3306.002 **Modeling and Texturing 1**

Professor Singkham Khamnouane
Term: Spring 2025
Meeting Time: Tuesday 10:00 AM – 12:45 PM
Classroom: ATC 2.605

Contact Info

Email: singkham.khamnouane@utdallas.edu *(See communication preferences below)*

Office Hours: Schedule a virtual appointment through eLearning

Modality In-Person

Course Description:

This course will introduce students to basic principles and techniques dealing with the modeling and texturing of hard surface geometry. An in-depth examination of Maya 3D animation software will also be covered.

Student Learning Objectives/Outcomes:

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

- Generate models and textures using Autodesk Maya, a computer graphics software.
- Translate objects and reference art into 3D models as students practice skills to develop their "artist eye" and grow their sense of 3D spatial awareness.
- Identify the purpose of creating clean mesh flow within models.
- Use UV unwrapping techniques to unwrap 3D models for hand painted textures.
- Develop realistic looking materials and textures using Maya, Photoshop, and Substance together.
- Evaluate critically the quality of models and textures by others.
- Construct a hard surface 3D modeling and texturing portfolio.

Course Requirements:

Pre-requisites: Either ATCM 2305, ATCM 2365, or ATCM 2310.

Required Materials:

Please refer to the Tech Requirement Sheet at the end of this document for more specific details on the following information.

- **Personal computer and/or ATEC lab computers**
- **Headphones/speakers** (for eLearning Lecture Videos)
- **Microphone, and webcam** (for online Office hours if needed)
- **Internet**

Software used in class:

- **Autodesk Maya 2024** – Autodesk Maya is available for free with a student license. Visit: https://www.autodesk.com/education/free-software/maya
- **Adobe Photoshop** – Adobe products have a student discount. Checkout the UTD Tech store for detail: https://utdtechstore.com/utdtechstore/

- **Adobe Substance** --- Adobe is available free for Students in Higher Education. Visit: https://substance3d.adobe.com/education/
- **Microsoft Teams** – (learn more here: https://www.utdallas.edu/oit/howto/microsoft-teams/)
- **Web Browser**

Websites Used for class:

- Box.com (learn more here: http://www.utdallas.edu/cometspace/)
- eLearning (Learn more here: https://www.utdallas.edu/elearning/students/.)

Computer and Software Access

ALL the programs needed for this course will be available on the ATEC lab computers. Not having the software at home or not having a sufficient personal computer is not a reason to miss assignment deadlines.

Course Structure:

This class will consist of workshops, lectures, demonstrations, constructive critiques and class discussions. It will be conducted face-to-face in-person. **This is NOT a hybrid course.** In case of last-minute modality changes, please check your email daily.

Communication Preferences

If a student needs to contact me, **Professor Khamnouane**, the best way is through our MS Teams **"Questions" channel** or via UTD email. Be sure to "@" me on Teams so I receive the notification. I especially encourage using Teams for homework questions or assignment clarifications, as it benefits the entire class.
If you have a private matter to discuss, please email me directly. Make sure to include this class's course number, as I have many students this semester and may not remember which class you're in.
Any messages or emails sent after 5 PM will be responded to the next day. Weekend emails will be addressed on the next weekday

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Homework Assignments:

Students will use their UTD Box.com accounts (CometSpace) to turn in homework assignments. The instructor will send an invitation to the students' UTD email the first week of class that will include further instructions regarding turning in homework.

Homework assignment descriptions, rubrics, and grades are posted on eLearning.

Grading Policy:

Students must demonstrate satisfactory achievement of course objectives through fulfillment of course assignments and by contributing to class discussions and critiques. Course assignments will require students to use software and equipment available in the ATEC computer labs. Course evaluation will be based upon the following:

Assignment Point Values:

Assignment 1 = 10 pts	Assignment 9 = 10 pts
Assignment 2 = 10 pts	
Assignment 3 = 10 pts	
Assignment 4 = 20 pts	Final Project = 35 pts
Assignment 5 = 10 pts	Class Participation = 15 pts
Assignment 6 = 10 pts	
Assignment 7 = 10 pts	
Assignment 8 = 10 pts	**Total: 150 pts**

Points Required for Grade:

A	94% – 100%	C	74% – 77%
A-	90% – 93%	C-	70% – 73%
B+	88% – 89%	D+	68% – 69%
B	84% – 87%	D	64% – 67%
B-	80% – 83%	D-	60% – 63%
C+	78% – 79%	F	Below 60% is failing

Class Participation:

Regular class participation is expected and crucial to your growth. A portion of your grade for this course is directly tied to your participation. This is where you will receive feedback from your professor on your current project, so please bring your work in progress weekly for review. Most classes will also include in-class exercises related to the weekly lectures. Every student who fails to participate regularly in class is inviting academic difficulty. Class participation is documented by faculty. Successful participation is defined as consistently adhering to university requirements, as outlined in this syllabus. Failure to comply with these requirements is a violation of the Student Code of Conduct.

Taking Notes:

Students are expected to take detailed notes during class and during video lectures. Students will have to submit notes weekly after watching weekly video lectures.

Late Assignment Policy:

Assignments turned in past the due date will lose 20% for each day late for up to 5 days. No assignments are accepted later than 5 days after the posted due date. No late submissions are accepted for Final Project.

Exceptions to the above late policy will only be granted with my permission, a time stamped email conversation with me, and proper supporting documentation (such as a doctor's note).

Making up missed work:

Makeups are available for students who have a legitimate excuse for missing a class or project, such as illness, scheduled job interview out of town, athletic team event out of town, death in the immediate family, etc. (SEE ABOVE) If you know in advance that you must miss a project or class, give an **email notice to the instructor in advance, and attach documentation to support your anticipated absence**. If you miss a class unexpectedly because of last minute illness or accident, submit a note to the instructor when you return to campus (or as e-mail attachment if you will be away for some time) with documentation of your situation. These exceptions to the Late Work Policy must be approved by The Professor.

Assignments & Academic Calendar				
Week	**Topic**	**Assigned**	**Due**	**Date**
Week 1	• *Introduction* • *Class Overview* • *Intro to 3d Modeling*	• Video Lectures 01 • **Assignment 1** *Primitive Modeling*		Jan 21
Week 2	• *Modeling Basics* • *Smoothing Preview*	• Video Lecture 02 • **Assignment 2** *Simple Prop*	**Assignment 1**	Jan 28
Week 3	• *Clean Topology* • *Modeling with Multi Image Planes* • *More Modeling Tools*	• Video Lecture 03 • **Assignment 3** *Modeling with Image Planes*	**Assignment 2**	Feb 4
Week 4	• *Working with more complicated shapes* • *Blocking out Model* • *Topology Lecture*	• Video Lecture 04 • **Assignment 4A** *Modeling Project*	**Assignment 3**	Feb 11
Week 5	• *Advance Modeling Tools and Technique*	• Video Lecture 05 • **Assignment 4B** *Modeling Project*	**Assignment 4A:** *Block Out*	Feb 18

Week 6	• *Introduction to UV Mapping* • *Basic Map Creations*	• Video Lecture 06 • **Assignment 5** *UV Simple Prop*	**Assignment 4B:** *Final Model*	Feb 25
Week 7	• *UV Unwrapping and Optimization*	• Video Lecture 07 • **Assignment 6** *UV Prop*	**Assignment 5**	Mar 4
Week 8	• *Intro to Substance Painter*	• Video Lecture 08 • **Assignment 7** *Texture Prop*	**Assignment 6**	Mar 11
Week 9	**Spring Break**			Mar 18
Week 10	• *Texturing Techniques*	• Video Lecture 09 • **Assignment 8** *Texture Model*	**Assignment 7**	Mar 25
Week 11	• *Exporting and Rendering Maps from Substance*	• Video Lecture 10 • **Assignment 9** *Texture and Render*	**Assignment 8**	Apr 1
Week 12	*Final Project Details* *Reference for Model*	**Final Project**	**Assignment 9**	Apr 8
Week 13	*Modeling Workflow Demo* *Critique and Lab Time*		Final Project Milestone 1	Apr 15
Week 14	*UV and Texturing Workflow Demo* *Critique and Lab Time*		Final Project Milestone 2	Apr 22
Week 15	*Texturing and Rendering Demo* *Critique and Lab Time*		Final Project Milestone 3	Apr 29
Week 16	*Final Project Due*		**Final Project**	May 6

Subject to change at Instructor's discretion. All changes will be provided to the class on eLearning

Email Use:

Students are responsible for regularly checking their UTD email. Using a personal email is not permitted.

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to http://netid.utdallas.edu.

Technical Support:

If you experience any issues with your UT Dallas account, contact the UT Dallas Information Resources Help Desk: assist@utdallas.edu or call 972-883-2911.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Support Center: http://www.utdallas.edu/elearninghelp.

Technical Support for Personal Software:

If you encounter any technical issues with the software used in this course at home, please contact the respective software company's support team for assistance. Many companies provide detailed troubleshooting guides, FAQs, and direct support through their websites.

For example:

- **Autodesk Maya:** Autodesk Support
- **Substance Painter:** Adobe Support
- **ZBrush:** Maxon HYPERLINK "https://www.maxon.net/en/support-center?srsltid=AfmBOoqDpO9Ew2lC7qjnGVtrscSBpEpUfo0i8q7jjBo4nUwpNpbBJ6Fs"Support

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

More Syllabus Policies Here: https://go.utdallas.edu/syllabus-policies

- Sharing Confidential Information
- Technical Support
- Field Trip Policies, Off-Campus Instruction and Course Activities
- Student Conduct and Discipline
- Social Media Use
- Academic Integrity
- Copyright Notice
- Email Use
- Class Attendance
- Class Participation
- Withdrawal from Class
- Student Grievance Procedures
- Incomplete Grade Policy
- Accommodation for Students with Disabilities
- Religious Holy Days
- Making a False Alarm or Report Involving a Public or Private Institution of a Higher Education
- Interactive Campus Map – Locate Severe Weather Shelters, Elevators, and Bathrooms

Academic Support Resources

Resources to Help You Succeed: https://go.utdallas.edu/academic-support-resources

- Comet Cupboard
- Comet Cents
- Intercultural Programs
- Student Counseling Center
- eLearning Helpdesk
- Graduation Help Desk
- Student Success Center

ANGM 4312.001 Modeling and Texturing II
Tech Requirement Sheet

General Tech Requirements

Please confirm that you have access to the following UTD Online resources as they will be needed throughout the course.

UTD NetID and Password:

You will need your UTD netID and password to access these resources. If you do not have your netID set up yet, please do so ASAP using the link below:
https://utdallas.edu/oit/howto/netid/

*You will also need to set up **Duo**, UTD's current two-factor authorization app to access your account, once you have set up your ITD netID. Please follow the setup instructions here:*
https://www.utdallas.edu/oit/howto/netidplus/

UTD Email Account:
Announcements and additional correspondence from for this class will be conducted through your UTD email account. If you have not accessed this account yet, please do so ASAP and check it DAILY for updates
https://utdallas.edu/oit/email/

E-Learning:
Assignments and tutorial videos will be posted on E-Learning (Blackboard). Unfortunately, access to your individual courses will not be available until the first day of classes, however, you can confirm access to the site before then.
http://elearning.utdallas.edu

Box.com:
All final assignments will need to be uploaded to a specified Box.com folder given to you by me. Storage space in Box.com is included in your tuition so you do not need to purchase space. Make sure to go through the university's Box.com links for access.
https://utdallas.account.box.com/login

Microsoft Teams:
Office Hours, Announcements, Group work, and Discussion Boards ("Questions Tab") will be conducted through Microsoft Teams. It is Free to students.
https://utdallas.edu/oit/howto/microsoft-teams/