

DIG4905 3D Modeling and Texturing

Instructor

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Email

Canvas Mail

Office Location

CSE 424

Office Hours

Thursday 10 – 11 AM

Course Number

DIG4905

Semester/Year

Spring 2020

Course Credits

3 credits

Course Location

NRG xxx (ORC)

Course Meeting Times

MON Period 8/9

WED Periods 9

Course Description

DIG4905 focuses on learning variety of polygon and curve-based modeling tools to create a cohesive 3D model. Also, students will have opportunities to investigate a pleasurable experience with Substance Painter to texture a 3D model stylistically.

Pre-Requisite Knowledge and Skills

DIG 3305C – 3D Animation Technique

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

- Understand important modeling principles and advanced techniques for creating an optimized 3D model
- Compare the connection between 2D and 3D thinking through a different approach to 3D modeling
- Perform a master skill with different types of topological project
- Use various sculpting tools in Mudbox/Maya
- Baking all essential maps for a studio environment
- Demonstrate texture painting for a multi-material low-poly objects/character

Required Materials

- Windows 10/Mac (Mojave or above) with 8 GB or higher Memory
- Non- Integrated GPU
- Drawing Tablet (Small, **Medium-Recommended** or Large)
- Autodesk Maya 2019
- Substance Painter
- Autodesk Mudbox 2019
- Adobe Photoshop CC

Recommended Materials

- 16GB RAM
- Nvidia Geforce GTX 600 or above, Radeon HD 7000 or above graphic card
- Wacom Intuos series tablet

Course Schedule

This schedule is only a guide and is subject to change. Unless otherwise indicated, assignments and readings are due the day they are listed on the syllabus, not the following day.

Week	Subject	Assignment/Quizzes	Assignments Due
Week 1	Overview of course and objectives Discuss/Review basic Maya tools Research and Plan In-Class Activity - 15 mins modeling	Assignment #1- Hard Surface Modeling : Gather Referew nces	
Week 2	Review reference Low Poly vs High Poly Demo: Blocking Out	Assignment #2 : Block out of the first model	Assignment #1- Hard Surface Modeling : Gather References
Week 3	Holiday (Monday) Critique Assignment #2 Virtual Reality and Augmented Reality Unwrapping UV (2D vs 3D)	Assignment #3 : Complete and polish the first model	Assignment #2 : Block out of the first model
Week 4	Critique Assignment #3 Demo: Detailing (Mesh vs Texture) Texturing in Maya	Assignment #4 : Texture Painting	Assignment #3 : Complete and polish the first model
Week 5	Critique Assignment #4 Progress Re-topology Demo: Hand Texture Painting Technique		
Week 6	Critique Assignment #4 Use of Materials Create custom materials		Assignment #4 : Texture Painting
Week 7	Arnold Rendering in Maya PPT: Color Space PPT: Linear Workflow	Assignment #5 : Rendering	
Week 8	Showcase Assignment #5 Interior Design in Maya In-Class QUIZ Demo: Environment Modeling Part 1	Assignment #6 : Environment Modeling Part 1	Assignment #5 : Rendering
Week 9	Spring Break (Woking Week)		
Week 10	Critique Assignment #7 Custom Lighting Techniques Implementing Realism	Assignment #7 : Environment Modeling Part 2	Assignment #6 : Environment Modeling Part 1
Week 11	Critique Assignment #8 Preview: Final Project	Assignment #8 : Final Project Proposal	Assignment #7 : Environment Modeling Part 2

Week	Subject	Assignment/Quizzes	Assignments Due
Week 12	Organic Modeling in Maya (Stylized Character) In-Class QUIZ Demo: Organic Modeling Part 1	Assignment #9 : Organic Modeling Part 1	Assignment #8 : Final Project Proposal
Week 13	Critique Assignment #6 Demo: Organic Modeling Part 2	Assignment #10 : Organic Modeling Part 2	Assignment #9 : Organic Modeling Part 1
Week 14	Critique Assignment #7 Demo: Organic Modeling Part 3 Character Rigging in Maya	Assignment #11 : Organic Modeling Part 3	Assignment #10 : Organic Modeling Part 2
Week 15	Critique Assignment #8 Fur/Hair in Maya (Xgen)		Assignment #11 : Organic Modeling Part 3
Week 16	Final Project Due	Final Presentation	

Evaluation of Grades

Assignment	Total Points	% of Grade
Participation – Students are expected to actively participate in class discussions, both in class as well as in class online forums outside class meetings.	100	10%
Weekly Assignments – Weekly assignments are due the first session of each week unless otherwise noted. The work will be uploaded to CANVAS prior to the beginning of class otherwise the work will be considered late.	450	45%
Quiz - In-class Quiz will be provided on week 12	50	5%
Final Project – Final Project is the final result of the semester long effort in learning. It is expected that in this	400	40%

Grading Scale

Letter Grade	% Equivalency	GPA Equivalency
A	94 – 100%	4.0
A-	90 – 93%	3.67
B+	87 – 89%	3.33
B	84 – 86%	3.00
B-	80 – 83%	2.67
C+	77 – 79%	2.33
C	74 – 76%	2.00
C-	70 – 73%	1.67
D+	67 – 69%	1.33
D	64 – 66%	1.00
D-	60 – 63%	.67
E, I, NG, S-U, WF		0.00

More information on grades and grading policies is here:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Materials and Supply Fees

Material and supply and equipment use fee information is available from the academic departments or from the schedule of courses (Florida Statutes 1009.24). The total course fee for this class is \$0.00.

The total course fee for each course is listed on the UF Schedule of Courses. (<https://registrar.ufl.edu/soc/>).

Course Polices

Attendance Policy, Class Expectations, and Make-Up Policy

We value participation more than mere attendance. The instructor is responsible for communicating the specific details of what percentage of your grade (if any) will be assigned to participation, and how class participation will be measured and graded. Interaction with your peers and the instructor will empower you to greater achievement.

State whether attendance is required and if so, how will it be monitored? What are the penalties for absence, tardiness, cell phone policy, laptop policy, etc. What are the arrangements for missed homework, missed quizzes, and missed exams?

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Course Technology

The students will be required to have access to and use a personal computer with the access to the Internet. Word editing software will be required for written assignments.

The University of Florida and Digital Worlds requires that students have access to and on-going use of a laptop/mobile computer for DIG courses in order to be able to function in the current learning environment. Digital Worlds requires each student's laptop computer to meet certain minimum specs for heavy graphics use, the requirements documented below must be met.

DW Computer Requirements: <http://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/new-student-buyers-guide/>

Course Communications

Students can communicate directly with the instructor regarding the course material through the course management system (CANVAS) using "Canvas Mail".

Course Technology Support

The [Technology Support Center](#) provides computer support for Digital Worlds students who access Zoom, lecture recordings, student equipment, facilities and other technology-based resources.

<http://digitalworlds.ufl.edu/support>

For computer assistance related to Zoon, lecture recordings, student equipment, and facilities request please [Submit a Help Ticket](#) or email support@digitalworlds.ufl.edu.

For support related to account services, technical consulting, mobile device services, software services, administrative support, application support center, and learning support services, please contact the [UF Computing Help Desk](#) available 24 hours a day, 7 days a week at 352-392-4357 or helpdesk@ufl.edu.

UF Policies

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Class Demeanor

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Netiquette Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats, more information can be found at: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary

action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:

<http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Campus Resources

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

E-learning Technical Support

352-392-4357 (select option 2) or e-mail to Learning- learning-support@ufl.edu

Career Connections Center

Reitz Union, 392-1601. Career assistance and counseling. <https://career.ufl.edu>

Library Support

Various ways to receive assistance with respect to using the libraries or finding resources.

<http://cms.uflib.ufl.edu/ask>

Teaching Center

Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>

Writing Studio

2215 Turlington Hall, 846-1138. Help brainstorming, formatting, and writing papers.

<http://writing.ufl.edu/writing-studio/>

Student Complaints Campus

<http://regulations.ufl.edu/wp-content/uploads/2012/09/1.0063.pdf>

Online Students Complaints

<http://www.distance.ufl.edu/student-complaint-process>

Disclaimer: This syllabus represents the instructor's current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.