DIG3329 3D Modeling and Texturing

Instructor
Seunghyuk Jang

Phone
(352) 294-2000

Email
Canvas Mail

Office Location
CSE 424
Zoom Meeting

Office Hours
Thursday 10 – 11 AM

Course Number
DIG4905

Semester/Year
Spring 2021

Course Credits
3 credits

Course Location
NRG 0120 (ORC)

Course Meeting Times
MON 3:00 – 4:55 PM
WED 4:05 – 4:55 PM

Course Description
DIG3329 focuses on learning a variety of polygon and curve-based modeling tools to create a cohesive 3D model. Also, students will have opportunities to investigate a professional 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 2020
- 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 Settings and UI Basics of Maya tools Review Student works	Assignment #1- Hard Surface Modeling : Gather References (Non-Graded)	
Week 2	Holiday (Monday) Review reference Low Poly vs High Poly Demo: Blocking Out (Part 1)	Assignment #2 : Blocking out the first model	Assignment #1- Hard Surface Modeling : Gather References
Week 3	Demo: Blocking Out (Part 2) Demo: Detailing (Part 1) Critique Assignment #2	Assignment #3 : Complete and polish the first model	Assignment #2 : Block out of the first model
Week 4	Critique Assignment #3 Demo: Detailing (Part 2) Unwrapping UV (Part 1)	Assignment #4 : Unwrapping UV	Assignment #3 : Complete and polish the first model
Week 5	Critique Assignment #4 Progress Unwrapping UV (Part 2) Use of Materials	Assignment #5 : Texture Painting (I-RAY)	Assignment #4 : Unwrapping UV
Week 6	Critique Assignment #5 Demo: Interior Design in Maya (Part 1)	Assignment #6 : Environment Modeling Part 1	Assignment #5 : Texture Painting (I-RAY)
Week 7	Demo: Interior Design in Maya (Part 2) Demo: Unwrapping UV		
Week 8	Critique Assignment #6 Demo: Hand Texture Painting Technique Arnold Rendering in Maya (Part 1)	Assignment #7 : Rendering in Maya	Assignment #6 : Environment Modeling Part 1
Week 9	Arnold Rendering in Maya (Part 2) PPT: Color Space PPT: Linear Workflow In-Class QUIZ		
Week 10	Critique Assignment #7 **Preview: Final Project (Organic Modeling)** Custom Lighting Techniques Implementing Realism	Assignment #8 : Final Project Proposal	Assignment #7 : Rendering in Maya
Week 11	Critique Assignment #8 Organic Modeling in Maya (Stylized Character) **Re-topology** Demo: Organic Modeling Part 1	Assignment #9 : Organic Modeling Part 1	Assignment #8 : Final Project Proposal

Week	Subject	Assignment/Quizzes	Assignments Due
Week 12	Critique Assignment #9 Demo: Organic Modeling Part 2	Assignment #10 : Organic Modeling Part 2	Assignment #9 : Organic Modeling Part 1
Week 13	Critique Assignment #10 Character Rigging in Maya	Assignment #11 : Organic Modeling Part 3	Assignment #10 : Organic Modeling Part 2
Week 14	Final Project Progress Review Demo: Creating Eyeballs		
Week 15	Critique Assignment #11 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.

Missing assignments will be marked as "0" unless addressed by instructor with extended due.
Students must provide documents for any medical excuses.

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/

Face-to-Face Instruction
We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms (Click here for guidance from the CDC on symptoms of coronavirus), please use the UF Health screening system and follow the instructions on whether you are able to attend class. Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms.

Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. Find more information in the university 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 Technology Requirements

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

Course Recordings
Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, 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 professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

Campus and Academic Resources

***U Matter, We Care*:** If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

***Counseling and Wellness Center*:** Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

***Student Health Care Center*:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center*:* For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

***E-learning technical support*:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

***Career Connections Center*:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

***Library Support*:** Various ways to receive assistance with respect to using the libraries or finding resources.

***Teaching Center*:** Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio*:* 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

***Student Complaints On-Campus*:** Visit the Student Honor Code and Student Conduct Code webpage for more information.

***On-Line Students Complaints*:** View the Distance Learning 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.