

EN843109 - 3D Modeling and Digital Sculpting - 2567/1

Syllabus

WARNING: some changes to this syllabus may be made during the semester.

Course Description:

Creating 3D model by sculpting technique, human anatomy, setting structure from basic sculpture model, setting structure and adding details from low-polygon model, retopology, 3D digital sculpting process

Prerequisites:

None

Students may have to bring their own laptop due to the limited resources of the classroom.

Class Meeting:

Wednesdays 14:30 - 17:30

Room **EN16201-S**

Google Classroom: <https://classroom.google.com/c/NjkwMDUwODE0Njgz>

Instructor:

Jakrit Pongpanich (jakrit.mjp@gmail.com)

Sarun Paisarnsrisomsuk (sarunpa@kku.ac.th)

Textbooks:

None

Grades:

- **Project** **30%**
 - Complete Digital Sculpting Workflow
 - Proposal 4%
 - Base Mesh 5%
 - Retopology 5%
 - Detailed Sculpt (Multires) 5%
 - Image Textures 2%
 - Normal Map
 - Color Map
 - Presentation 5%
 - .blend File 4%
- **Assignments** **60%**
 - A1: Blender Basics 5%
 - A2: Low-Poly Model 10%
 - A3: Digital Sculpting 10%
 - A3_P1: Referenced Sculpt 5%
 - A3_P2: Personal Sculpt 5%
 - A4: Retopology 15%
 - A4_P1: Base Mesh 10%
 - A4_P2: Retopology (Main Model) 5%
 - A5: UV 5%
 - A6: Multires 10%
 - A7: Final Model 5%
 - A7-1 Image Textures 2%
 - A7-2 Final Render 3%
- **Participation** **10%**

*** Note: please review Academic Honesty Policy below ***

Class Schedule:

Week	Date	<u>DUE</u>	Topic
1 Introduction & Introduction	Jun 19	1. Introduction 2. Assignment 1	● Discussion ○ Introduction, About the Course, Various topics, etc. ● Practice

to Blender			○ Introduction to Blender
2 Introduction to Blender (continue)	Jun 26	1. Assignment 1 2. Project Talk	● Discussion ○ More about Blender ○ Term Project Discussion ● Practice ○ Introduction to Blender
3 Blender Basics & Editing	Jul 3	1. Assignment 2	● Discussion ○ Wrap Up Introduction ○ Blender: Basic Editing ● Practice ○ Blender: Low-Poly Modeling
4 Week 3 + Introduction to Digital Sculpting	Jul 10	1. Assignment 2 2. Assignment 3	● Discussion ○ Blender: Basic Editing ○ Blender: Digital Sculpting ● Practice ○ Blender: Low-Poly Editing ○ Blender: Digital Sculpting
5 Introduction to Digital Sculpting	Jul 17	1. Assignment 3	● Discussion ○ Digital Sculpting ○ Project Proposal Discussion ● Practice ○ Blender: Digital Sculpting
6 Introduction to Digital Sculpting (Continue)	Jul 24	1. Assignment 3	● Discussion ○ Digital Sculpting (continue) ● Practice ○ Blender: Digital Sculpting
7 Project Proposal Cleanup	Jul 31	1. Project Proposal 2. Review + Late Submissions	● Discussion ○ Project Proposal ○ Assignment Cleanup ● Practice ○ Anything prior (A01-A03 Late Submissions)
Midterm Exam Week			
Optional Session	Any Sat-Sun before Final	1. Finishing up and remaining work 2. Project Proposal Discussion (if able)	● Discussion ○ Any ● Practice ○ Any
8	Aug 14	1. A04-1	● Discussion

Review Base Mesh Sculpting			○ Review after midterm ○ Retopology ● Practice ○ Blender: Retopology
9 Retopology	Aug 21	1. A04-1	● Discussion ○ Retopology (continue) ● Practice ○ Blender: Retopology (continue)
10 Retopology (Continue) UV Mapping	Aug 28	1. Assignment 4 2. Assignment 5	● Discussion ○ Retopology (continue) ● Practice ○ Blender: Retopology (continue)
11 Detail Sculpting Multires	Sep 4	1. Assignment 6	● Discussion ○ Detail Sculpting ● Practice ○ Blender: High-Poly Sculpting
12 Detail Sculpting Multires (Continue)	Sep 11	1. Assignment 6	● Discussion ○ Detail Sculpting ● Practice ○ Blender: High-Poly Sculpting
14 Baking Image Textures Texture Painting	Sep 18	1. Assignment 7	● Discussion ○ Baking Image Textures & Texture Painting ● Practice ○ Baking High-Poly Details ○ Image Textures ■ Normal Map ■ Cavity ■ Color
14 Baking Image Textures 	Sep 25	1. Assignment 7	● Discussion ○ Baking Image Textures & Texture Painting ● Practice ○ Baking High-Poly Details ○ Image Textures ■ Normal Map ■ Cavity ■ Color
15 Final Cleanup	Oct 2	1. <i>Submit any and all due assignments</i> 2. <i>Project Discussion</i>	● Discussion ○ Submit any due assignments ● Practice ○ Finish Assignments & Cleanup

16 Final Project Presentation	Oct 9	Final Presentation Requirements ● Low-Poly Model ● Base Mesh ● Main Model (Retopology) ● High-Poly Model (Multires) ● Image Textures ○ Normal Map ○ Cavity Map (optional) ○ Color Map ● Final Render
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Academic Honesty Policy

Academic honesty is a fundamental principle of learning. A student deserves to be credited for and only the work that he/she has done. Academic dishonesty is an act that interferes with the evaluation of academic performance and creates a misrepresentation of one's knowledge.

Academic dishonesty includes (**but not limited to**) the following examples:

- **Cheating**: using or attempting to use unauthorized materials to aid in academic work
 - Copying another student's academic work
 - Unauthorized communication during exams
 - Unauthorized use of materials or sources of information, such as cheat sheets, phones, pre-programmed calculators
- **Fabrication**: Falsification of information, data, or citation in academic work
 - Changing laboratory data
 - Altering grades
 - Citing a reference in bibliography that was not used
 - Changing answers and/or exam solution without permission
- **Facilitation**: Helping or attempting to help another student to commit an act of academic dishonesty
 - Sharing test questions or answers from exams, homeworks, or labs with another student
 - Doing academic work for another student
 - Allowing another student to copy a solution to homework problems, exams, or labs
 - Making previously used academic work available to another student who intends to submit for credit
- **Plagiarism**: Using the words, ideas, data, code, or other forms of material of another person without providing proper citation
 - Misrepresenting the work of another as one's own
 - Paraphrasing without citation
 - Inaccurately or inadequately citing sources

In this class, any act of academic dishonesty will be taken very seriously. The instructor(s) reserves the right to fail a student who gets caught committing or attempting to commit academic dishonesty acts without giving any warning.