LAGUNA COLLEGE OF ART AND DESIGN
Fall 2016
Modeling for Games – GA275
Number of Units - 3
Instructor - Don Ott
Tuesday evening online 7:00pm-10:00pm
Mailbox: give correspondence to front desk receptionist
Instructor available via email and class forum
dott@lcad.edu
Class forum - http://lcad-gameart.proboards.com/

[GA275 – Modeling for Games]

CATALOG COURSE DESCRIPTION

3ds Max is the leading software in the game industry for creation of assets and environments. It is very difficult to teach such an expansive program in a few short semesters. This course will allow students to become comfortable with the complex interface so that they may have an easier time grasping the design and digital sculpting in their major. The focus is on the creation of forms to be integrated into a game. Aesthetics, construction, communication, light and form and quality of work are stressed.

> **Course Pre-requisites:** *Fundamentals of Game Art*
> *Fundamentals of Maya*

COURSE OBJECTIVES

• To help the students gain a better understanding of the 3ds Max, Photoshop, and UE4
• To give students the skills necessary to create game world assets with today (and tomorrow's) visual demands in mind.
• To aid the students in being more comfortable with the overall process of generating high quality world assets for video games, and seeing them through from start to finish.
• To eliminate any confusion about shaders and textures in today's gaming world, and to help students understand how to create them and how they work.

LEARNING OUTCOMES

By the conclusion of **Modeling for Games**, the student should be able to:

✓ Work from concept or reference images and quickly iterate on and build their game assets.
✓ Fully utilize the power of 3ds Max 2016, Photoshop, and the UE4 Game Engine to create high quality current-generation props and assets.
✓ Understand the fundamentals of low and high poly modeling, normal mapping and baking pipelines, and becoming comfortable with the sub-d modeling process.
✓ Understand materials, shaders, and the principles of texture painting.

LCAD ATTENDANCE POLICY

A student may add or drop a class by completing an Add/Drop form. If the student does not complete a drop form and ceases to attend class, he/she will receive a grade of "F" for the class. This grade will be recorded on the student's transcript and will be reflected in his/her Grade Point Average. (GPA). Specific Add/Drop dates are posted at the beginning of each semester. Add dates and drop dates, with and without assessment, vary according to the course length and start/end dates. Adherence to these dates will be strictly enforced except in serious compelling and mitigating circumstances. It is the student's responsibility to ensure that all signatures are on the form before it is turned in to the Registrar's office. See also "Withdrawal from the College" & "Withdrawing from a course".

Students are expected to attend classes and be on time. LCAD's Attendance Policy is as follows:
15-week classes with 2 weekly meetings - 5 absences allowed; student is dropped at the 6th absence
15-week class with 1 weekly meeting – 3 absences allowed; student is dropped at the 4th absence
10-week classes with 2 weekly meetings – 2 absences allowed; student is dropped at the 3rd absence

Exceptions:

In case of serious illness or other emergency, students may be assigned an incomplete if they have completed at least 60% of the coursework. Attendance is monitored by the instructors with each instructor having sole discretion in assessing the impact of absences on a student's final grade. Any attendance policy adopted by the LCAD faculty senate shall supersede the policy as stated in the Student Handbook.

WITHDRAWAL FROM THE COLLEGE

Students not intending to return to LCAD should complete an official notice of withdrawal, available at the Registrar's Office. Please make an appointment with the registrar to complete the form (Email: registrar@lcad.edu and Phone: 949-376-6000). If circumstances do not allow for an in-person meeting, please contact the registrar by telephone so that the notice of withdrawal may be filed by mail.

ELECTRONIC COMMUNICATION POLICY

(Include the following, but modified as appropriate)
As a default, I will be sending class emails to your LCAD email, as it is also the email LCAD staff will use when sending you important emails. Plus, it will help get you into the habit of using a more professional email for school and for potential future work. When sending me an email, please be sure to include your last name, the course number, and the purpose of the email in the subject heading.

The bulk of this class' communication will be done on the class' forum. As such, it is absolutely imperative and mandatory that you are participating and communicating regularly. A minimum of **5** unique posts per week on your threads will be expected to maintain a passing grade.

LCAD GRADING SCALE

A	4.0	A-	3.7
B+	3.3	B	3.0
B-	2.7	C+	2.3
C	2.0	C-	1.7
D+	1.3	D	1.0
D-	0.7	F	0

<u>COURSE GRADING REQUIREMENTS</u>

A = Excellent
In class and homework drawing assignments go beyond the ideas presented in class both in skill and creativity. Each drawing is an excellent example that shows few errors in composition, design, materials understanding, Photoshop techniques, construction, lighting, realism, and application of style and design directives. Value and light logic is used convincingly to create 3-dimensional volume. Excellent understanding of materials is demonstrated repeatedly.

B = Very Good
In class and homework drawing, design and/or rendering assignments are successful at representing the ideas presented in class both in skill and creativity. Each drawing exhibits good examples with few errors in composition, design, materials understanding, Photoshop techniques, construction, lighting, realism, and application of style and design directives. Drawings show consistent, convincing 3-dimensional volume.

C = Average
In-class and homework drawing, design and rendering assignments are on-time, complete and adequate in skill and creativity. Each drawing, design and/or rendering is an average example with minor errors in composition, design, materials understanding, Photoshop techniques, construction, lighting, realism, and application of style and design directives. Ability to create volume is weak both in structure and value. Material indication is cursory (stylistic) without demonstrating deeper analytical understanding. Renderings are not tight.

C- and Lower = Failing grade for this class – Student will need to retake the class.

D = Failing grade for this class – Student will need to retake the class.

In class and homework drawing, design and rendering assignments that are incomplete and/or late and show lack of understanding and coherence. Homework that demonstrates only a basic understanding of the ideas presented. Many errors in composition, design, materials understanding, Photoshop techniques, construction, lighting, realism, and application of style and design directives. Volume, structure and/or perspective is weak and not convincing. Renderings are messy (as opposed to loose).

F = Failing
In class and homework does not meet minimum requirements for a D. Drawings do not fulfill the requirements of the assignment. Little if any effort expended on an assignment. Assignments were late or missing. Student had too many absences.

MAKE-UP WORK / MISSED WORK

There will be **NO** makeup work offered. If you miss the class and do not contact the instructor **BEFORE** class begins on Tuesday, the student will receive **zero** points for the week. If the student thinks they will miss class, they are to send the instructor screenshots and images to show the progress for the week **BEFORE class begins** on Tuesday. No exceptions!!!

LATE WORK

Work is considered late if it is submitted to the instructor 20 minutes after class has begun (*at 7:20pm*) but before the end of class at 10pm. If work is late, and not submitted to the instructor prior to the 7:20am deadline, you will receive a 1/3rd grade reduction of homework points available for the week. **NO EXCEPTIONS!!!**

Example - There are 30 points available for the week. If you turn your work in at 7:22pm without contacting the instructor **prior** to class, the maximum points you can obtain is 20 points.

After 7:50pm, without prior approval, work is considered completely missed and is not accepted, receiving zero points.

MAKEUP ASSIGNMENTS

If you have missed class, it is **YOUR** responsibility to diligently contact the instructor for the assignment. There will be assignments given **each week** of class, so assume there is work you will need to have ready and complete for the next class time.

COMPLETION OF MIDTERM AND FINAL

There will be NO separate mid-term or final exam administered. Except for Week 1, every single week will be graded **exactly the same**. You will be given a mid-term grade, which will be the culmination of the acquired points at that time. **Absolutely no work will be accepted after the final class meets Week 16.**

CLASS PARTICIPATION

Students are highly encouraged to participate in class discussions and ask questions. Points are awarded for class participation. The points are awarded for **a)** being in class, **b)** showing up on time, **c)** participating / paying attention during lecture and **d)** working diligently during the lab times. Class Participation will account for **25%** of your final grade. Missed class hours are added cumulatively throughout the course.

- Missing (**2**) full class days (*or the equivalent*) will result in an automatic reduction of 1 letter grade.
- Missing (**3**) full class days (*or the equivalent*) will result in an automatic reduction of 2 letter grades.
- Missing (**4**) full class days (*or the equivalent*) will result in an automatic grade of F.

BEHAVIOR/CONDUCT

- Please be online and ready for class on time.
- Please be considerate and attentive during student presentations and student-led activities. Do not text, draw or use your computer during these times unless the student leader indicates that it is okay.

LCAD PLAGIARISM GUIDELINES

Plagiarize – "to steal and pass off, the ideas or words of another as one's own: use a created production without crediting the source, to present as new and original an idea or product derived from an existing source" – Merriam Webster's Collegiate Dictionary Tenth Edition.

Submitting assignments that you did not write, or create in whole or in part, or presenting the words or ideas of others without giving proper credit is plagiarism. This applies to any research not collected by you. Giving credit for all borrowed information, whether literal or visual, will alleviate issues of plagiarism. Explain relevance of borrowed material and the transition into your own voice, literal or visual. All written assignments for LCAD must be documented by providing: MLA formatted Works Cited page by citing the exact page or source. Regardless of the material cited, your writing needs to be clear where the cited work begins and ends.

LCAD has a formal committee that regularly reviews suspected plagiarism cases and issues appropriate penalties. Plagiarism is a violation of trust and academic honesty: it will severely affect your status in the college and can ruin your academic career. Students found guilty of plagiarism are subject to the provisions of the Student code of Conduct as listed in the current Student Handbook, and may be submitted to disciplinary action including dismissal.

SPECIAL NEEDS AND ACCOMODATIONS

At LCAD, we do our best to support our students, which means help students address their psychological, emotional, and physical needs. A licensed, personal counselor, is available on campus to help you with stress management, time management, etc. Everything is kept confidential and it is free of charge. Contact our campus counselor, Yuki Acs at yacs@lcad.edu if you would like a counseling session. If you have a need for an accommodation, please contact our Disabilities Coordinator Lisa Villanueva at lvillanueva@lcad.edu.

COURSE SCHEDULE/ TIMELINE

Week	Course Schedule
Week 1	3ds Max Crash Course, Class Intro / Layout class expectations, project requirements, and assign Prop #1.
Week 2	3ds Max Crash Course #2 - Unwrapping, modifiers, texturing very basics
Week 3	UV Unwrapping Revisited, Modeling improvements, AO baking, smoothing groups
Week 4	**Prop #1 is due** – Intro to Unreal, basic introduction to materials, modeling improvements and demo – **Start work on Prop #2**
Week 5	Modeling review / demo of improvements and additional features in 3ds Max
Week 6	UV / Texturing Demo / Materials Demo
Week 7	**Prop #2 is Due** – Introduction to High Poly Modeling and Normal Maps **Start work on Prop #3**
Week 8	Continuing High Poly Modeling / Demo and fixing student work
Week 9	Continuing High Poly Modeling / Demo – Learn basic scripts and new tools for High Poly
Week 10	Demo building a low poly + UVs + Smoothing
Week 11	Baking maps / Texture / Material Pass / dDo rough demo
Week 12	**Prop #3 is Due** – Feedback and material / texture demo on assets submitted – **Start work on Prop #4**
Week 13	UV Smoothing Script, Double-Normal bake, overlaying normal maps and details
Week 14	More modeling demonstrations, Additional shaders in Unreal, Q&A
Week 15	Basic lighting and post process overview in Unreal. Final Q&A wrapup before final is due
Week 16	**Last day of class – Final Prop #4 is Due / Class Wrapup**

RESOURCE LIST

Required:
Working personal PC or Laptop.
An updated version of 3ds Max
Adobe Photoshop
Marmoset
Latest version of Unreal - https://www.unrealengine.com

Recommended:
Crazybump
Quixel's dDo / Suite