**ANI 433 – 701 (ANI 333 – 701) Advanced 3D Rigging Course Syllabus**
Fall 2014
TH 5:45pm
CDM 722 Loop

**Instructor**
Mary Omelina
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Office Hours: T/TH 3:30pm – 5:00pm or by appointment

## Course Summary

This course will teach students inorganic rigging of vehicles and machines as well as advanced techniques for characters such as blend shape facial expression setups and squash and stretch. Additional topics will include quadruped rigging and 3D scripting for creating user interfaces and automating complex processes. PREREQUISITE(S): ANI 230 and ANI 231

## Course Objectives

Upon completion of this course students will have:
1. Expanded their basic rigging skills and understanding of tools and techniques related to rigging 3D models for animation.
2. Completed a number of rigs that simplify for the animator the complexities of animating natural, realistic transformations and deformations. Projects will include rigging a quadruped, humanoid, and building a complete human facial rig designed for speech and expression.

## Attendance

Student absences are not expected to exceed more than 20% (2 absences) of the number of the classes scheduled for the semester. A 3rd absence will lower your final grade by one letter. A 5th absence will result in an F for the course.

The student is responsible for any lectures or assignments missed. You don't need permission to miss up to 2 classes. PLEASE do not email me asking me what we covered in your absence. Again, it's your responsibility to track down that information. So make friends with your classmates.

You may not miss the final class date. Doing so will equal an automatic two letter grade reduction of your final grade. If for some reason you cannot make one of these dates you must contact your instructor BEFORE the class that you must miss. Excuses given after the fact will not be accepted.

No incompletes will be given without documented proof of circumstances beyond your control.

**Assignments**

All assignments and grades will be managed on D2L.

Unless I tell you otherwise, assigned work must be completed and submitted on D2L BEFORE class starts. Don't wait until the last minute to attempt to submit your assignments. Doing so may jeopardize your ability to meet unmovable project deadlines.

Students will work for extended periods on several projects with hard deadlines that must be met. NO LATE PROJECTS WILL BE ACCEPTED. You will have the opportunity to revise or polish your completed projects to improve your project grades.

Between project deadlines there will be weekly milestone deliverables. These are not optional submissions - you must turn in your works-in-progress each week. If you fail to turn in anything for weekly milestones it may begin to affect your grade, depending on the quality of your finished projects. If appropriately submitted WIPs fail to achieve the deliverables for that week it will not affect your grade for that particular finished project.

If you miss class or for any other reason are unable to meet the milestone deliverables for the week you must take it upon yourself to catch up. Lectures and demonstrations will not be repeated for students who miss class or use class time to finish milestone tasks covered in previous sessions instead of following the current class lectures and demonstrations.

It is solely the student's responsibility to make up any classes they may have missed. Tasks and assignments build upon previous tasks. Students MUST come to class prepared to follow along with the current lecture/demos and in order to do so the student must have made up for any missed lectures/demos before they return to subsequent classes. Generally you can rely on the ability to view the recorded lectures but that's not always the case, and the unavailability or inability to view the recordings will not be accepted as an excuse for not knowing the material.

In all cases you will have needed to complete your weekly milestone deliverables in order to continue working along in class on your WIP [work in progress] file. Meaning if you fall behind on your weekly milestones you will not have a file on which to work along in class for that day.

Assignments must be in the following format:
LastnameFirstname_projectnameNumber.extension
example: OmelinaMary_QuadrupedRig.mb
or: OmelinaMary_Week3Milestone.mb

* Special Accommodations: If you have any special considerations please see the instructor.

* BACK UP YOUR WORK: Failure of computer software and or hardware will not be accepted as an extenuating circumstance for late projects or incomplete grades so back up your work daily.

**Grades**

95% Assignments
5% Participation

A = Excellent, B = Very Good, C = Good, D = Acceptable, F = Unacceptable

A = 100-93, A- = 92-90, B+ = 89-88, B = 87-83, B- = 82-80, C+ = 79-78, C = 77-73, C- = 72-70, D+ = 69-68, D = 67-63, D- = 62-60, F = 59-0.

**Academic Integrity**

Work done for this course must adhere to the DePaul University Academic Integrity Policy, which you can review in the Student Handbook or by visiting http://academicintegrity.depaul.edu/

DO NOT SHARE DIGITAL FILES OR PASS THEM BACK AND FORTH UNDER ANY CIRCUMSTANCES. This is strictly forbidden. All digital assignments must have been generated completely by you, with the exception of a provided file for you to start from. If you need help you must seek out help in person and UNDER NO CIRCUMSTANCES are you to email or otherwise transfer your own working files to anyone except the instructor.

**Materials and Supplies**

We will be using Maya for the duration of the class. We will also use the Adobe software suite for compiling and compressing movies of your rigs in motion. It is recommended that you install the latest version of Maya at home if you are so able. You may not be able to access the provided files with older versions of Maya. It's your responsibility to troubleshoot any installation issues directly with Autodesk.

You need to join Autodesk Education Community to access their free software, and sometimes their response time can be delayed. So take care of this ahead of time if you wish to work on your assignments at home.

http://www.autodesk.com/education/free-software/students-university/popular

You will be provided with Maya files to work from at the start of each project. You may not use these files for any other purpose but to complete the assigned project for this class. If you wish to include a sample of one of the projects on a demo reel you must recreate the rig on a model for which you have permission to use for demo material purposes.

**Recommended Texts (not required):**
Introducing Maya 2014 by Dariush Derakhshani Publisher: Sybex
The Art of 3D Computer Animation and Effects, Fourth Edition (Paperback) Isaac Kerlow, Publisher: John Wiley & Sons; 2009

**Reference Websites:**
DePaul students, faculty, and staff can login to lynda.com for unlimited access to a vast online library of instructional videos covering the latest software, creative, and business skills. Taught by accomplished teachers and recognized industry experts, lynda.com is a high-quality resource for students, faculty, and staff looking to develop skills in Microsoft Office, Adobe Creative Suite, social media, web design, animation, photography, audio and video production, project management, and a wide range of other topics.

http://offices.depaul.edu/is/services/technology-training/Pages/online-training.aspx

**Weekly Schedule (subject to change):**

Week 1 - 9/11
Intro to the class and review of the syllabus
Quadruped: skeleton; skinning

Week 2 - 9/18
Quadruped: rigging techniques

Week 3 - 9/25
Quadruped: work in class on rig; demo animation / ROM (movie)
Completed Rig (mb file); demo (QT MOV)are DUE Week 4 @ the beginning of class.

Week 4 - 10/2
Challenges in Rigging: Rope; Wagon w/ automated wheel revolution; Choice
1 Challenge project (mb file) of your choosing; demo (QT MOV) Due Week 5 @ the beginning of class.
1 Extra credit Challenge project (mb file); demo (QT MOV) allowed, also DUE Week 5 @ the beginning of class.

Week 5 - 10/9
Humanoid: skeleton; skinning; rig

Week 6 - 10/16
Humanoid: rig

Week 7 - 10/23
Humanoid: rig & demo animation / ROM
Completed Rig (mb file); demo (QT MOV)are DUE Week 8 @ the beginning of class.

Week 8 - 10/30
Building a facial rig

Week 9 - 11/6
Building a facial control system

Week 10 - 11/13
Work in class on facial rig and control system; demo animation (movie)
Completed Rig (mb file); demo (QT MOV)are DUE on the day of the FINAL @ the beginning of class.

**Final Exam Presentations** **-** November 20, 2014 @ 5:45pm
Facial rig w/ control system (mb file); demo (QT MOV)
Optional: Revised Quadruped rig (mb file); demo (QT MOV)
Optional: Revised Humanoid (mb file); demo (QT MOV)