

Cañada College Course Syllabus

Course Number: MART432

Course Title: **3D Environments & Hard Surface Modeling**

Credit Values: 1.5 Credits

Class Meetings: Wednesdays 6:30-9:30 (10 classes)

Session/Year: Spring 2009 (March 24-May 26)

Instructor Name: Carlos Chapeton

Email Address: (chapetonc@smccd.edu)

Course Description:

In this course, students will further explore concepts & techniques introduced in MART 421 to perfect their skills in modeling, texturing, lighting, and composition. A game studio approach will be taken for this class. We will have two projects. The main project will be an environment built as a class. Students will be encouraged to meet production deadlines/milestones to enhance their work habits and review their work once per week.

Main Class Topics:

- Hard Surface Modeling using Polygons
- Texture Mapping
- Lighting/Rendering
- Architectural Environments
- Texture Mapping for Environments
- Finding Resources for Modeling

Required Supplies:

USB “jump drive” (Minimum 1gig). **BACK UP YOUR WORK EVERY WEEK!** Lost or corrupted files will not be an acceptable excuse for missing a deadline.

Suggested Text:

Learning Autodesk Maya 2009 Foundation: Official Autodesk Training Guide. Published by Autodesk Maya Press
ISBN: 978-1-897177-51-8

Learning Autodesk Maya 2009: The Modeling & Animation Handbook. Published by Autodesk Maya Press
ISBN: 978-1-897177-38-9

Advanced Maya Texturing and Lighting, 2nd Edition by Lee Lanier. Published by Wiley Publishing 2006
ISBN: 978-0-470-29273-0

Maya Professional Tips and Techniques by Lee Lanier.
ISBN: 978-0-470-10740-9

Attendance:

Regular attendance is vital to your success in this class. The assignments and exercises build on one another, and missing class sessions will make it harder to complete the assigned tasks. Excessive absences may result in you being dropped from the class. Please let instructor know if you are missing a class in advance.

Trade email addresses and/or phone numbers with another student on the first night, and contact each other to find out about assignments and class activity if you're absent.

Assignments:

There will be 2 assignments with production milestone deadlines each week.

Process for Evaluation:

Attendance and Participation	10%
Weekly Assignments/Milestones	40%
Quality & Completion of Assignment #1	20%
Quality & Completion of Assignment #2	30%

Student Evaluation/Grading Policies:

All work must be received by the set deadlines/milestones.

On-time projects may be redone with instructor approval.

ABSOLUTELY NO WORK WILL BE ACCEPTED AFTER THE FINAL CLASS MEETING.

MART 432 Syllabus

- Week 1 **Lecture:** Review various environments in games and movies. Resources for modeling. Review of Polygonal Modeling Tools, UV Mapping and Maya Workspace. Introduce Project #1. Teach proper modeling techniques for games and how to model quickly. Find a building, get it approved and begin modeling.
- March 24: **Homework: Finish first model. Do not worry about UV mapping or Texturing yet.**
- Week 2:
March 31 **DUE: Building Completely Modeled.**
Present Model to Class for Critique
Lecture: UV mapping techniques. How to setup UV maps and plan for your textures.
Lab: Start to UV your model. Apply basic texture colors to model.
Homework: Continue to Model and Finish UV's.
- Week 3:
April 7 **DUE: Model and UV Mapping Completed.**
Present Model and UV mapping to class for critique.
Lecture: Texturing for games. How to get the look you want. How a game engine works with your model. How to create seamless repeating textures. Using Highlights and Shadows.
Lab: Begin texturing your model.
Homework: Finish Project #1.
- Week 4:
April 14 **Project #1 Due: Modeled and Textured**
Present Completed Projects to Class
Lecture: Using Alpha Channels to create transparent textures. Two examples in class: Trees and Windows. Introduction of Final Project. Review drawing and pictures and discuss our world.
Lab: Begin looking for resources for Final Project.
Homework: Bring at least 3 examples for your Final Project, including photos and drawings and textures.
- Week 5:
April 21 **Due: Bring your resources and examples for final project.**
Present to class and discuss Art Direction of final world
Lecture: Creating Bump and Spec maps.
Lab: Begin Modeling Final Project
Homework: Continue Modeling Final Project.
- Week 6:
April 28 **Due: Continued progress of final project.**
Lecture: Ground textures. Transitioning between different textures. Modeling of environment. Adding a sky dome.
Lab: Continue Project. Begin adding skydomes and land.
Homework: Add Sky and surrounding environment

- Week 7:
May 5 **Due: Continued progress of final project.**
Lecture: Present Progress to Class. TBD Guest Speakers From Game Industry.
Lab: Continue Project, Start Texturing Environments
Homework: Finish Modeling Environment, Start on Texturing Environment
Extra Credit Announced
- Week 8:
May 12 **Due: Open Lab Day**
Lecture: I will be out of town this week. We will either have open lab time or the class will be canceled. I will let you know well in advance.
Lab & Homework: Continue to finish Final
- Week 9:
May 19 **Lecture:** Lighting and Rendering Of Your Models.
Lab: Work on lighting your environment.
Homework: 3 Final Renders of Environment (1024x1280 resolution, tiff format) Completed .ma file ready to turn in on day of Final.
- Week 10:
May 26 **Due: Final Presentation of Assignment #1-Product and Assignment #2-Environment**