

GCOM 424

Introduction to Video Game Art

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Office Hours

Tues: 10 - 11:30AM
Wed: 10 - 11:30AM
Thur: 10 - 11AM
Fri: 11 - 12PM

Class Times

Wednesday (Room CM110)
1:00pm - 2:50p.m. - *Lecture*
3:00pm - 4:15p.m. - *Lab*

Course Description

This course explores the production of video game graphics. The course follows the role of the video game artist through the game development process. Using industry standard graphic software, students will develop and refine two-dimensional and three-dimensional video game assets. Topics covered include concept art, understanding and developing in game assets, user interface design, and troubleshooting. This course emphasizes the artistic side of video game design; this course is not a computer programming course.

Goals

Master the craft of game design so you can create that elusive combination of challenge, competition, and interaction that players seek. This design workshop begins with an examination of the fundamental elements of game design; then puts you to work in prototyping, playtesting and redesigning your own games with exercises that teach essential design skills.

Workshop exercises require no background in programming or artwork, releasing you from the intricacies of electronic game production, so you can develop a working understanding of the essentials of game design

Objectives

Unlike goals, objectives are supposed to be measurable. Here's what you will have to do to pass with course with flying colors:

- create, manipulate and implement video game art assets.
- demonstrate an understanding of the various roles of a professional video game artist.
- demonstrate an understanding of the video game art pipeline.
- critique the art projects of others.
- analyze and compare the work of professional game artists.
- successfully 'pitch' game art concepts.

*** Students with prior training will be assigned more advanced projects ***

Text and Materials

Required Text:

The Official Luxology Modo 301 Guide
ISBN: 978-1598634976

Recommended Text:

Polygonal Modeling: Basic and Advanced Techniques
ISBN: 978-159822070

Required Materials:

USB Flash Drive (at least 128mb) for homework assignments

Class Policies

- Please arrive and conduct yourself in a professional manner.
- Please show up to class on time.
- At the beginning of each class, there will be an attendance sheet for you to sign next to your name. If you miss **THREE OR MORE** classes, and have not discussed these absences with me, I may drop you from the class.
- Please do not bring quests to class unless prearranged with the instructor.
- Contact the instructor in advance to make appropriate arrangements for missing a class and lesson.
- The student is responsible to learn the assignment and/or information if a class/lecture is missed.
- **NO** active cellular phones/beepers (turn the ringers **OFF**) in class or lab.
- Please raise your hand to ask questions or speak up if I'm not looking!
- Feel free to tape record lectures, but your recording device must be compact and you must come to class early enough to set it up without disturbing the class—do not bring in your boom box to record lectures and do not interrupt the class to set up your recorder.

If you miss **THREE OR MORE classes, and have not discussed these absences with me, I may drop you from the class. It is the student's responsibility to initiate discussion with the instructor regarding illness, planned absence, or other situations like dropping the class.**

Evaluation

Grades are compiled from the following:

	Ind. Value	Opportunities	Total
Class Participation	10	15	150pts
Weekly Assignments	50	11	550pts
Lab Assignment	25	11	225
Final Project	250	1	250pts
		Grand Total =	975pts

All assignments are due at the beginning of class. The first 15 minutes of class will be devoted to turning in assignment, unless otherwise noted by the instructor. All assignments must be physically turned into the instructor during class. Assignments handed-in after class will be counted as "Late".

**** Assignments CANNOT be emailed to the instructor ****

Late Assignments

- One Class = One Letter Grade
- Two Classes = Two Letter Grades
- Three or more classes = the assignment will not be accepted

Only extreme circumstances warrant a grade of "incomplete". An incomplete grade is reserved for those students who meet all of the following criteria:

- Student experiences an extreme situation which is unexpected (Such as a death in the family, serious illness requiring the student to miss several classes)
- Student's grades are passing (C or higher) at the time of the extreme situation.
- Student notifies the instructor within 10 days of an extreme situation

**** A home computer crash is not an acceptable excuse ****

Academic Dishonesty

Students are expected to maintain the highest standards of academic honesty while pursuing their studies at Sacramento City College. Academic dishonesty includes but is not limited to: plagiarism and cheating; misuse of academic resources or facilities; and misuse of computer software, data, equipment or networks.

Plagiarism is the use (copying) of another person's ideas, words, visual images or audio samples, presented in a manner that makes the work appear to be the student's original creation. All work that is not the student's original creation, or any idea or fact that is not "common knowledge," must be documented to avoid even accidental infractions of the conduct code.

Cheating is to gain unfair advantage on a grade by deception, fraud, or breaking the rules set forth by the instructor of the class. Cheating may include but is not limited to: copying the work of others; using notes or other materials when unauthorized; communicating to others during an exam; and any other unfair advantage as determined by the instructor.

Disability Policy Statement

It is our policy not to discriminate against qualified students with documented disabilities in our educational programs, activities, or services. If you have a disability-related need for adjustments or other accommodations in this class please contact the Disabilities Resource Center. You must inform your instructors and the Disabilities Resource Center before the end of week one of classes and preferably before the class start.

Desire to Learn (D2L)

This class will utilize Desire to Learn, our online learning resource system. Assignments, grades, rubrics and class materials will be placed in our class's D2L website. Please bring your student ID number and password to class each session. We will be actively using this platform for this class.

Lab Hours and Information

Lab Location: T109

Lab Phone: 916-558-2277

Lab Schedule: The Lab is open 6 days a week, during the following hours:

Monday - Thursday: 8:00 AM - 9:00 PM

Friday: 11:00 AM - 5:00 PM

Saturday: 1:00 pM - 5:00 PM

Sunday: Closed

The computer lab is equipped with Apple iMacs loaded with the latest software. They are for you to use for class projects –please treat them with respect. Every time you use the computer lab you **MUST** sign-in at the computer near the door using your student ID number. The lab attendance records generate funds for new equipment and software. The lab coordinators and tutors are available for assistance if you are experiencing difficulty with the homework.

They have been asked **NOT** to hand-feed you answers. They are there to help you learn and remember the material. There should always at least one lab employee close by to help you, but do not use the help as a crutch or you will not learn the material. I also recommend that you bring your text book to the lab as reference material, especially during busy hours when one-on-one help is harder to get.

A New Greener Approach

The GCOM Department at SCC recently became the first community college in the U.S. to join the Designers Accord—an international coalition of designers, educators, researchers, engineers, business consultants, and corporations, who are working together to create positive environmental and social impact. As part of GCOM’s effort, we are planning to implement more “sustainable” practices in the way we teach and run our program.

For more info on the Designers Accord, visit www.designersaccord.org

Most lesson assignments will come from the textbook and any extra instructions will be detailed on the class blog. As much as possible, any additional assignments and handouts will be available only as PDF files on the blog and **NOT** be handed out in paper form in the classroom. You are

encouraged to NOT print out these files, but to read them and keep them in digital form only.

Online Resources

SCC Website: www.scc.losrios.edu

Desire 2 Learn: <https://d2l.losrios.edu/>

GCOM Department Website: http://wserver.scc.losrios.edu/~tech/gc/gcom_home.html

GCOM Blog: <http://gcomscc.blogspot.com/>

Class Website: www.renderography.com

Adobe's Website: www.adobe.com

Autodesk Website: www.autodesk.com

Luxology Website: www.luxology.com

Academic Software: www.journeyed.com

Calendar of Assignments

January

Due Date	Assignment
01/21/14	Bring D2L Info
01/28/14	Student Survey & Syllabus

February

Due Date	Assignment
02/04/14	Game Dice
02/11/14	Wine Barrel - High
02/18/14	Wooden Crate
02/25/14	Dumpster Geometry

March

Due Date	Assignment
03/04/14	Dumpster Texture
03/11/14	Sci-Fi Panel
03/18/14	Water Wheel
03/25/14	Blacksmith Shop - Geo

April

Due Date	Assignment
04/01/14	Blacksmith Shop - Tex
04/08/14	Blacksmith Shop - Env
04/15/14	Spring Break!
04/22/14	Final Project - Design
04/29/14	Final Project - Rough

May

Due Date	Assignment
05/06/14	Final Project - Playtest 1
05/21/14	Final Project DUE

Game Dice

Due: Week 3

Skills Learned

- Application interface
- Basic object creation
- Bevel tool
- Rendering basics
- Working with reference images
- 3 Point Lighting Setup

Wine Barrel

High

Due: Week 4

Skills Learned

- Working with Layers
- Items in Modo
- The Bend Tool
- The Basics of Using Fall-Offs (Linear & Radial)
- Duplication Tools
- Using Sub-Division Surfaces

Wine Barrel

Low

Due: Week 5

Skills Learned

- Shader Tree Fundamentals
- Creating Material Masks
- Adding Diffuse Textures
- Changing Material Effects (Bump and Stencil)
- Creating Normal Maps

Wooden

Crate

Due: Week 6

Skills Learned

- UV Mapping Basics
- Creating Textures in Photoshop
- Creating Ambient Occlusion Maps
- Interactive Texture Painting
- Advanced Material Editing

Dumpster

Geometry

Due: Week 7

Skills Learned

- Adv. Hard Surface Modeling
- UV Mapping
- Modeling to Reference Images
- Using Material Presets
- Using Environment Presets

Dumpster

Texture

Due: Week 8

Skills Learned

- UV Mapping Basics
- Creating Textures
- Using Photoshop for Textures
- Interactive Texture Painting
- Advanced Material Editing
- Creating Light Maps

Sci-Fi Panel

Due: Week 9

Skills Learned

- Visual Storytelling
- Mixing Sub-Div & Polygons
- Creating a Scene
- Lighting with Lumigons
- Mesh Sculpting
- Adv. Render Settings
- Adv. Texturing

Water

Wheel

Due: Week 10

Skills Learned

- Architectural Modeling
- Visual Storytelling
- Adv. Global Illumination
- Physical Sun Techniques
- Adv. Polygonal Modeling
- Adv. Box Modeling
- Adv. Texturing

Blacksmith

Shop - Geo

Due: Week 11

Skills Learned

- Hard Surface Modeling
- Beg. Sub-Div Surface Modeling
- Creating Multiple Items
- Loop Slice Modeling
- Adv. Material Creation
- Importing Objects into Unity 3D

⁴Blacksmith

Shop - Tex

Due: Week 12

Skills Learned

- Adv. Hard Surface Modeling
- Adv. Texture Creation
- Creating Materials in Unity
- Understanding Draw Calls
- Performance Optimization
- Unity 3D Material Interface

Blacksmith

Shop - Env.

Due: Week 13

Skills Learned

- Adv. Hard Surface Modeling
- Adv. Texture Creation
- Environment Tools in Unity 3D
- Importing Skyboxes
- Using the Terrain Tool in Unity 3D
- Placing Trees, grass and bushes in Unity 3D

Final Project

Due: 05/22/13

Must Include

- Reference Images
- Low Polygonal
- UV Maps for ALL ITEMS
- Diffuse Textures Maps for ALL ITEMS
- Unity 3D Project Directory