

UCSD StudentTECH 2012

Computer Science for High School Students

Sponsored by the San Diego Supercomputer Center and UCSD College Explorations, University of California, San Diego

Modeling and Animation with Maya

Monday- Friday, July 23-27, 2012

Class meets at the University of California, San Diego from 8:30am - 3:00pm.

Introduction to Maya: 3D Modeling for Video Games

Course Overview

This workshop is the perfect first step into Maya and the world of 3D animation. Learn how to make your way around this incredibly powerful software and see how you can use it as a tool in the process of creating your own video games.

The first half of this workshop will take you through the basics of Maya. You will learn the essential tools that game designers use to create and animate their characters, objects, and worlds. In the second half you will create your own video game map in Maya, complete with textures and lighting. At the end you will get a preview of the Unreal Development Kit and see how this tool can be used to bring your map to life in a true video game environment.

What to Expect

- Learn the essentials of polygon modeling
- Create your own 3D character in Maya
- Give this character a skeleton and watch it move
- Build a video game map
- Paint textures and make lighting for your map
- Render an image and a video of your completed map
- Get a preview of one of gaming's most robust engines and see how you can use this to bring your video game worlds to life

Weekly Course Syllabus

- Session 1

Get familiar with Maya and begin modeling a character. Learn the essential polygon modeling tools.

- Session 2

Learn more about polygon modeling while continuing to model your character. Also learn more about the Maya interface and work flow.

- Session 3

Give your character color and texture with UV mapping.

- **Session 4**

Learn the basics of rigging a character in Maya: build a skeletal structure and bind it to a skin.

- **Session 5**

Introduction to animation using keyframes and the graph editor.

- **Session 6**

Discuss video game map creation. Plan and begin modeling your own map.

- **Session 7**

Continue to model your map and begin creating textures for the map.

- **Session 8**

Complete textures and create lights for your map. Learn how to render an image of your map for web and print.

- **Session 9**

Create a camera path and render a video run-through of your level.

- **Session 10**

Learn about the Unreal Development Kit (UDK) and how you can use it with Maya for video game creation. Learn about importing models from Maya into UDK and working with BSP.

Prerequisites

- Students should be comfortable using a computer
- Students should be excited about 3D animation, gaming, or digital art
- Familiarity with Adobe Photoshop will be helpful

Course Instructor: James Nuanez, Graphic Artist

Prerequisites:

- Must be a current high school student in grade 9 –12.
- Careful and patient enough to learn some new skills and listen to expert coaching

Course fee: \$225.00

Registration deadline: June 15, 2012. Space is limited.

If you have any questions regarding this workshop or the application process, please contact Ange Mason via phone at 858 534-5064 or via email at amason@ucsd.edu.

Modeling and Animation with Maya

July 23-27, 2012

Applicant Information:

Name: _____
Last First Middle

Mailing address: _____
Street Address or Post Office Box City/State Zip

Telephone: _____ Email: _____

Date of birth: _____ Age as of June 30, 2012: _____

Gender: _____ Male _____ Female

San Diego County Middle or High School: _____
School name District

Grade completed by June 2012: _____

Email: (optional) _____

Parent or Legal Guardian Information (if applicant is under 18): (Please Print)

Name: _____

Mailing address: _____
Street Address or Post Office Box City/State Zip

Telephone: (Home) _____ (Work) _____

Email: (Please Print) _____

Course fee: \$225.00

Please make your check or money order payable to UC Regents and submit both payment and application in a single envelope to the following address:

Ange Mason
Attn: Student Summer Workshops
San Diego Supercomputer Center
University of California, San Diego
9500 Gilman Drive, Mail Code 0505
La Jolla, CA 92093-0505

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