

Version 8.1

<http://gamepipe.usc.edu/Masters.html>

**MS in Computer Science  
(Game Development)**

**CS Core (9 credits)**

**You must take the following two courses:**

CS 570 Analysis of Algorithms

CS 580 3D Computer Graphics & Rendering

**You must take one of the following courses:**

CS 555 Advanced Operating Systems

CS 561 Artificial Intelligence

(or CS 573 Advanced Artificial Intelligence)

CS 571 Web Technologies

CS 577a Software Engineering

CS 585 Database Systems

EE 557 Computer Systems Architecture

**Game Development Core (11 credits)**

CTIN 488 Game Design Workshop (4)

CS 487/ITP 485 Programming Game Engines(4)

CS 484 Game Hardware Architectures

**Electives - choose a concentration area &  
Complete Two Classes in That Area**

(6 credits)

Infrastructure

Cognition & Games

Immersion

Serious Games

**Project Classes (7 credits)**

CSCI 529a Advanced Game Projects I (4)

CSCI 529b Advanced Game Projects II (3)

(take in semester 3 and 4)

**Infrastructure**

CS 520 Computer Animation & Simulation

CS 522 Game Engine Development

CS 523 Networked Games - Design &  
Implementation

CS 524 Networked AI

CS 526 Advanced Mobile Devices &  
Game Consoles

**Cognition & Games**

CS 524 Networked AI

CS 534 Affective Computing

CS 535 Game Based Learning

CS-541 AI Planning

CS 543 Software Multiagent Systems

CS 569 Integrated Intelligent Systems

CS-573 Advanced AI

**Immersion**

CS 520 Computer Animation & Simulation

CS 523 Networked Games - Design &  
Implementation

CS 537 Immersive Environments

CS 538 Human Performance Engineering

CS 574 Computer Vision

CS 588 Specification & Design of UI Software

CTAN 502A Virtual Reality & Stereoscopic Animation

EE 619 Advanced Topics in Speech Recognition &  
Spoken Language Engineering

**Serious Games**

CS 520 Computer Animation & Simulation

CS 535 Game Based Learning

CS 537 Immersive Environments

CS 538 Human Performance Engineering

**Total (33 credits)**