COMPUTER SCIENCE - GAME DEVELOPMENT EMPHASIS (BA/BS)

Code	Title	Units
Major Requirements [1]		
Computer Science Core:		
COMPSCI 172	INTRODUCTION TO JAVA	3
or COMPSCI 174	INTRODUCTION TO C++	
COMPSCI 221	INTERMEDIATE PROGRAMMING IN C# [2]	3
or COMPSCI 220	INTERMEDIATE JAVA	
or COMPSCI 222	INTERMEDIATE C++	
COMPSCI 223	DATA STRUCTURES	3
COMPSCI 271	COMPUTER ORGANIZATION AND ASSEMBLY PROGRAMMING	3
COMPSCI 332	INTRODUCTION TO ARTIFICIAL INTELLIGENCE	3
COMPSCI 433	THEORY OF ALGORITHMS	3
COMPSCI 476	SOFTWARE ENGINEERING	3
Game Development Core:		
MAGD 150	INTRODUCTION TO MEDIA ARTS AND GAME DEVELOPMENT	3
MAGD 210	VISUAL DESIGN FOR DIGITAL MEDIA	3
or MAGD 220	DRAWING FOR DIGITAL MEDIA	
MAGD 272	GAME DEVELOPMENT	3
MAGD 372	INTERMEDIATE GAME DEVELOPMENT	3
COMM 351	GAME STUDIES AND DESIGN	3
Select 9 units of advanced Computer Science or related electives:		**9**
Any undergraduate COMPSCI courses numbered 300 or higher		
Any graduate COMPSCI courses numbered 700 or higher [3]		
MATH 355	MATRICES AND LINEAR ALGEBRA	
MATH 450	GRAPH THEORY	
MATH 471	NUMERICAL ANALYSIS	
STAT 342	APPLIED STATISTICS	
Select 9 units of Media Arts and Game Development electives:		**9**
ARTSTDIO 376		
ARTSTDIO 377	HD/DV DESIGN FUNDAMENTALS	
ARTSTDIO 379	INTERACTIVE MULTIMEDIA DESIGN	
ARTSTDIO 380	3D MODELING-IMAGING-ANIMATION I	
ARTSTDIO 388	MOTION GRAPHIC ANIMATION STUDIO I	
ARTSTDIO 476		
ARTSTDIO 477	ADVANCED HD DV MOTION CAPTURE STUDIO	
ARTSTDIO 480	3D MODELING-ANIMATION II	
ARTSTDIO 488	MOTION GRAPHIC ANIMATION STUDIO II	
ARTSTDIO 496	SPECIAL STUDIES	
ARTSTDIO 498	INDEPENDENT STUDIES	
COMM 238	VIDEO PRODUCTION I: FUNDAMENTALS OF VIDEO	
COMM 239	AUDIO PRODUCTION I: FUNDAMENTALS OF AUDIO	
COMM 258	VIDEO PRODUCTION II: MEDIA STORYTELLING	
COMM 259	AUDIO PRODUCTION II: ADVANCED AUDIO TECHNIQUES	
COMM 285	SOCIAL MEDIA OPTIMIZATION & THE NEW WEB	
COMM 294	WEB VIDEO PRACTICUM	
COMM 338	VIDEO PRODUCTION III: CORPORATE AND COMMERCIAL MEDIA	
COMM 339	AUDIO PRODUCTION III: RECORDING, MIXING AND MASTERING	
COMM 346	SOUND AND IMAGE: AN EXPLORATION OF SOUND FOR/WITH VISUAL MEDIA	
or MUSC 346	SOUND AND IMAGE: AN EXPLORATION OF SOUND FOR/WITH VISUAL MEDIA	
COMM 440	NEW COMMUNICATION TECHNOLOGIES	
COMM 493M	MAGD INTERNSHIP	
COMM 496	SPECIAL STUDIES	
COMM 498	INDEPENDENT STUDY	
LIBMEDIA 175	VIDEO GAMES AND LEARNING	
MAGD 210	VISUAL DESIGN FOR DIGITAL MEDIA	
or MAGD 220	DRAWING FOR DIGITAL MEDIA	
MAGD 231	GAME JAM PRACTICUM	
MAGD 269	NEW MEDIA ENSEMBLE	
MAGD 270	WEB DEVELOPMENT	
MAGD 271	INTERACTIVE COMMUNICATION	
MAGD 488	MEDIA ARTS AND GAME DEVELOPMENT TEAM PROJECTS [4]	
MAGD 489	SOUND DESIGN FOR ADVANCED MAGD TEAM PROJECTS	
MUSC 452	ELECTRONIC MUSIC AND SOUND DESIGN	
Capstones:		
MAGD 487	MEDIA ARTS CAPSTONE - PORTFOLIO DEVELOPMENT	3
MAGD 488	MEDIA ARTS AND GAME DEVELOPMENT TEAM PROJECTS	3
Total Units		**60**

[1] An approved minor is not required for this major.

[2] COMPSCI 221 is preferred for this emphasis.

[3] Graduate courses (500+) may have additional requirements prior to enrollment by undergraduate students. See the Seniors Taking Graduate Courses Policy for further information. Undergraduate students taking graduate courses are not generally permitted to enroll in COMPSCI 789, COMPSCI 793, COMPSCI 798, or COMPSCI 799.

[4] MAGD 488 is repeatable. Students pursuing this emphasis are required to complete MAGD 488 at least once. A second or third completion of MAGD 488 will count toward the 9 required units of MAGD electives in the major.

Code	Title	Units
Unique Requirements:		
MATH 250	APPLIED CALCULUS SURVEY FOR BUSINESS AND SOCIAL SCIENCES	5
or MATH 253	CALCULUS AND ANALYTIC GEOMETRY I	
COMPSCI 215	DISCRETE STRUCTURES	3

or MATH 280	DISCRETE MATHEMATICS	
PHYSCS 130	PHYSICS FOUNDATIONS	5
or PHYSCS 140	PRINCIPLES OF PHYSICS I	
or PHYSCS 180	PHYSICS FOR SCIENTISTS AND ENGINEERS I	

Code	Title	Units
Writing Requirement:		
ENGLISH 274	INTRODUCTION TO CREATIVE WRITING	
ENGLISH 370	ADVANCED COMPOSITION	
ENGLISH 376	SCREENWRITING	
PWP 272	WRITING ABOUT FILM AND MEDIA	
PWP 332	WRITING FOR THE WEB	
PWP 372	TECHNICAL AND PROFESSIONAL WRITING	
Or approved substitute		