

# BACHELOR OF SCIENCE IN COMPUTATIONAL MEDIA - MEDIA-GAMES

Code	Title	Credit Hours
<b>Wellness Requirement</b>		
APPH 1040	Scientific Foundations of Health or APPH 10 The Science of Physical Activity and Health or APPH 10 Flourishing: Strategies for Well-being and Resilience	2
<b>Core IMPACTS</b>		
<b>Institutional Priority</b>		
CS 1301	Introduction to Computing <sup>1</sup> or CS 1315 Introduction to Media Computation	3
<b>Mathematics and Quantitative Skills</b>		
MATH 1552	Integral Calculus	4
<b>Political Science and U.S. History</b>		
HIST 2111	The United States to 1877 or HIST 2117 The United States since 1877 or INTA 1200 American Government in Comparative Perspective or POL 1101 Government of the United States or PUBP 3000 American Constitutional Issues	3
<b>Arts, Humanities, and Ethics</b>		
Any HUM		6
<b>Communicating in Writing</b>		
ENGL 1101	English Composition I	3
ENGL 1102	English Composition II	3
<b>Technology, Mathematics, and Sciences</b>		
Lab Science		8
MATH 1551	Differential Calculus	2
MATH 1554	Linear Algebra <sup>4</sup> or MATH 15 Linear Algebra with Abstract Vector Spaces	4
<b>Social Sciences</b>		
Any SS		9
<b>Field of Study</b>		
CS 1331	Introduction to Object Oriented Programming <sup>1</sup>	3
CS 1332	Data Structures and Algorithms for Applications <sup>1</sup>	3
CS 2050	Introduction to Discrete Mathematics for Computer Science <sup>1</sup>	3
CS 2340	Objects and Design <sup>1</sup>	3
LMC 2700	Introduction to Computational Media <sup>1</sup>	3
MATH 2550	Introduction to Multivariable Calculus <sup>4</sup>	2
<b>Major Requirement</b>		
CS 2261	Media Device Architectures <sup>1</sup>	4
CS 4001	Computing, Society, and Professionalism or CS 3001 Computing, Society, and Professionalism or CS 4726 Privacy, Technology, Policy, and Law or SLS 3111 Technology and Sustainable Community Development	3
<b>Junior Design Options (Capstone)</b>		
Junior Design Option <sup>1,3</sup>		6

## Media Requirements

Media Technology (select three): <sup>1</sup>		9
CS 3451	Computer Graphics <sup>1</sup>	
CS 4455	Video Game Design and Programming	
CS 4460	Introduction to Information Visualization	
CS 4464	Computational Journalism	
CS 4475	Computational Photography	
CS 4480	Digital Video Special Effects	
CS 4488	Procedural Content Generation	
CS 4496	Computer Animation	
CS 4590	Principles and Applications of Computer Audio	

## Games Requirements <sup>2</sup>

LMC 2410	Introduction to Game Studies <sup>1</sup>	3
LMC 4710	Game Studio <sup>1</sup>	3
CS 3600	Introduction to Artificial Intelligence <sup>1</sup>	3
Design course: <sup>1</sup>		3

LMC 2730	Constructing the Moving Image	
LMC 3710	Principles of Interaction Design	
Game Design courses: <sup>1</sup>		9
LMC 4720	Interactive Narrative	
LMC 4725	Games Design as a Cultural Practice	
LMC 4730	Experimental Digital Art	
LMC 4731	Game AI	

CM or Media Courses <sup>1</sup>		9
LMC 2400	Introduction to Media Studies	
LMC 2500	Introduction to Film	
LMC 3206	Communication and Culture	
LMC 3314	Technologies of Representation	
LMC 3406	Video Production	
LMC 3402	Graphic and Visual Design	
Any LMC 27XX, 37XX, 47XX, 325X		

## Free Electives

Free Electives	6
<b>Total Credit Hours</b>	<b>122</b>

Pass-Fail is allowed for Free Electives.

<sup>1</sup> Minimum grade of C required.

<sup>2</sup> LMC courses cannot count in two thread areas at the same time. There is no double counting.

<sup>3</sup> Junior Design Options are as follows (students must pick one option and may not change):

- Option 1  
- LMC 3432, LMC 3431, CS 3311CS 3311CS 3311,CS 3312CS 3312CS 3312.
- Option 2 - ECE VIP courses and LMC 3403LMC 3403LMC 3403.
- Option 3 - Satisfy Georgia Tech Research Option
- Option 4- CS 2701CS 2701CS 2701 (3 hours), CS 4699- I2P (3 hours), LMC 3403LMC 3403LMC 3403 (3 hours) = 9 hours OR CS 4699CS 4699CS 4699- I2P (6 hours), LMC 3403LMC 3403LMC 3403 (3 hours) = 9 hours
- Option 5 - CS 4723 (3 hours), LMC 3403 (3 hours) = 6 hours

Six credits of the Junior Design option are used as Major Requirements and the overage credits of research/VIP (5 credit hours/2 credit hours) may be used as free electives. Students completing VIP for their

junior design requirement will be required to complete at least three semesters of VIP. (VIP 1 + VIP 2 + VIP 3) (for a total of 5 credit hours) + LMC 3403 = 8 hours of VIP credit.

Students using CREATE-X for junior design take at least 6 hours of CREATE-X Start-up Lab and Idea 2 Prototype (I2P) and 3 of the 6 hours must be I2P. Students take these 6 hours with LMC 3403 (3 hours) for a total of 9 hours. Extra three hours for CREATE-X option can be used in free electives.

- <sup>4</sup> Two credit hours of MATH 1554 may count along with MATH 2550 to give Field of Study 18 credit hours.