

BACHELOR OF SCIENCE IN COMPUTATIONAL MEDIA - INTELLIGENCE - GAMES

Code	Title	Credit Hours
Wellness		
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
Core A - Essential Skills		
ENGL 1101	English Composition I	3
ENGL 1102	English Composition II	3
MATH 1552	Integral Calculus	4
Core B - Institutional Options		
CS 1301	Introduction to Computing ¹ or CS 1315 Introduction to Media Computation	3
Core C - Humanities		
Any HUM		3
Any LMC HUM		3
Core D - Science, Math, & Technology		
Lab Science		8
MATH 1551	Differential Calculus	2
MATH 1554	Linear Algebra ⁴ or MATH 1554 Linear Algebra with Abstract Vector Spaces	4
Core E - Social Sciences		
Select one of the following:		3
HIST 2111	The United States to 1877	
HIST 2112	The United States since 1877	
INTA 1200	American Government in Comparative Perspective	
POL 1101	Government of the United States	
PUBP 3000	American Constitutional Issues	
PSYC 1101	General Psychology	3
Any SS		6
Core F - Courses Related to Major		
CS 1331	Introduction to Object Oriented Programming ¹	3
CS 1332	Data Structures and Algorithms for Applications ¹	3
CS 2050	Introduction to Discrete Mathematics for Computer Science ¹	3
CS 2340	Objects and Design ¹	3
LMC 2700	Introduction to Computational Media ^{1,2}	3
MATH 2550	Introduction to Multivariable Calculus ⁴	2
Major Requirements		
CS 2110	Computer Organization and Programming	4
CS 4001	Computing, Society, and Professionalism or CS 4726 Privacy, Technology, Policy, and Law or SLS 311C Technology and Sustainable Community Development	3
Junior Design Options (Capstone)		
Junior Design Option ^{1,3}		6

Intelligence Requirements

CS 3510	Design and Analysis of Algorithms ¹	3
CS 3600	Introduction to Artificial Intelligence ¹	3
Computational Complexity (select one):		3
CS 4510	Automata and Complexity Theory ¹	
CS 3240	Languages and Computation	
Emodied Intelligence (select one): ¹		3
CS 3630	Introduction to Perception and Robotics	
CS 3790	Introduction to Cognitive Science	
PSYC 3040	Sensation and Perception	
Approaches to Intelligence (select two): ¹		6
CS 4495	Computer Vision	
CS 4635	Knowledge-Based Artificial Intelligence	
CS 4641	Machine Learning	
CS 4646	Machine Learning for Trading	
CS 4649	Robot Intelli Planning	
CS 4650	Natural Language Understanding	
CS 4731	Game AI	

Games Requirements

LMC 2410	Introduction to Game Studies ¹	3
LMC 4710	Game Studio ¹	3
Design course (select one): ¹		3
LMC 2730	Constructing the Moving Image	
LMC 3710	Principles of Interaction Design	
Game Design courses (select three): ¹		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 (select three): ¹		9
LMC 2400	Introduction to Media Studies	
LMC 2500	Introduction to Film	
LMC 3206	Communication and Culture	
LMC 3314	Technologies of Representation	
LMC 3362	Science, Technology and Performance	
LMC 3406	Video Production	
LMC 3402	Graphic and Visual Design	
LMC 3853	Special Topics in Film	
Any LMC 27XX, 37XX, 47XX, 325X		

Total Credit Hours **122**

¹ Minimum grade of C required.

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

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

⁴ Two credits of MATH 1554 may count along with MATH 2550 to give Area F 18 credit hours.