

Bachelor of Science in Computer Game Design & Development



Updated 7/16/2024

Catalog Year: 2024-2025

Total Degree Credit Hours: 120

<p>I Institutional Priority</p>	<p>2 Classes 5 Credit Hours</p>	<p>Complete the following course: ECON 1000</p>	<p>AND</p>	<p>Complete one course from the following: AMST 1102, ASIA 1102, BLCK 1102, COMM 1100, GWST 1102, LALS 1102, LDRS 2300, PAX 1102, ISD 2700, POLS 2401, RELS 1102</p>
<p>M Mathematics & Quantitative Skills</p>	<p>1 Class 3- 4 Credit Hours</p>	<p>Complete the following course: MATH 1113</p> <p><i>Computing-related Science Majors: Students must take MATH 1113 or higher</i> <i>Computing-related Engineering Majors: Students must take MATH 1190 or higher</i></p>		
<p>P Political Science and U.S. History</p>	<p>2 Classes 6 Credit Hours</p>	<p>Complete the following course: POLS 1101</p>	<p>AND</p>	<p>Complete one course from the following: HIST 2111, HIST 2112</p>
<p>A Arts, Humanities, and Ethics</p>	<p>2 Classes 6 Credit Hours</p>	<p>Select one course from the following: CHIN 1001 or CHIN 1002, ENGL 2110, ENGL 2120, ENGL 2130, ENGL 2140, FREN 1001 or FREN 1002, GRMN 1001 or GRMN 1002, HEBR 1001 or HEBR 1002, ITAL 1001 or ITAL 1002, JAPN 1001 or JAPN 1002, KOR 1001 or KOR 1002, LATN 1001 or LATN 1002, PHIL 2010, PORT 1001 or PORT 1002, RUSS 1001 or RUSS 1002, SPAN 1001 or SPAN 1002, WLC 1002, WLC 2209</p>	<p>AND</p>	<p>Complete one course from the following: ART 1107, DANC 1107, MUSI 1107, TPS 1107</p>
<p>C Communication in Writing</p>	<p>2 Classes 6 Credit Hours</p>	<p>Complete the following course: ENGL 1101</p>	<p>AND</p>	<p>Complete the following course: ENGL 1102</p>
<p>T Technology, Mathematics, and Science</p>	<p>3 Classes 10-12 Credit Hours</p>	<p>Complete one course from the following: MATH 1190, MATH 2202</p> <p><i>Computing-related Science Majors: Students must take MATH 1190 or higher</i> <i>Computing-related Engineering Majors: Students must take MATH 2202</i></p>	<p>AND</p>	<p>Science Majors and Engineering Majors: Select two course pairs from the following (8 Credit Hours) CHEM 1211 and CHEM 1211L CHEM 1212 and CHEM 1212L PHYS 1111 and PHYS 1111L PHYS 1112 and PHYS 1112L PHYS 2211 and PHYS 2211L PHYS 2212 and PHYS 2212L BIOL 1107 and BIOL 1107L BIOL 1108 and BIOL 1108L <i>Please note: Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.</i></p>
<p>S Social Sciences</p>	<p>2 Classes 6 Credit Hours</p>	<p>Complete one course from the following: HIST 1100, HIST 1111, HIST 1112</p>	<p>AND</p>	<p>Complete one course from the following: CRJU 1101, GEOG 1101, PSYC 1101, SOCI 1101, STS 1101, ANTH 1102, ECON 2106</p>

Core Field of Study

Prerequisites			
CSE 1321/L Programming & Problem Solving I	Lecture & Lab must be taken at the same time	4	
CSE 1322/L Programming & Problem Solving II	Minimum grade of 'B' in CSE 1321/L & MATH 1113/1190/2202*	4	
MATH 2345 Discrete Mathematics <i>or</i> CSE 2300 Discrete Structures for Computing	MATH 1113/1190 MATH 1113/1190 & CSE 1321/L	3	
STAT 2332 Probability and Data Analysis	MATH 1190	3	
CGDD 2012 Fundamentals of Game Design	None	2	
CGDD 2014 Fundamentals of Digital Game Development	'B' or higher in CSE 1321/L & CGDD 2012*	1	
+ 1 hour from Technology, Mathematics, and Sciences	See IMPACTS requirements	1	

CSE 1321/L and CSE 1322/L must have a minimum grade of 'B.' All other courses in this area must have a minimum grade of 'C.'

*May be taken before or at the same time requirement

Major Core Requirements

Prerequisites			
CSE 3153 Database Systems	CSE 1322/L	3	
CSE 3801 Professional Practices and Ethics	CSE 1322/L	2	
CS 3305 Data Structures	CSE 1322/L & (MATH 2345/CSE 2300), or MTRE 2610* or CPE 3000*	3	
CS 4306 Algorithm Analysis	CS 3305	3	
CS 4722 Computer Graphics and Multimedia	CS 3305	3	
SWE 3313 Intro to Software Engineering	CSE 1322/L	3	
SWE 3643 Software Testing and Quality Assurance	SWE 3313 <i>or</i> CPE 3000	3	
SWE 4324 User-Centered Design	SWE 3313	3	
CGDD 4242 Agent-Based Artificial Intelligence	CS 3305	3	
CGDD 3103 Application Extension and Scripting	CGDD 2012 & CSE 1322/L w/ 'B' or better	3	
CGDD 4003 Digital Media and Interaction	CGDD 3103 <i>or</i> CS 3305	3	
CGDD 4203 Introduction to Mobile & Immersive Gaming	CGDD 4003	3	
CGDD 4303 Educational and Serious Game Design	CGDD 4003	3	
CGDD 4803 Studio	CGDD 4003	3	
CGDD 4814 Studio 2	CGDD 4803	4	
+ 1 hour from Technology, Mathematics, and Sciences	See IMPACTS requirements	1	

All major requirements (including carryover credit) must have a minimum grade of 'C,' except for CSE 1321/L and CSE 1322/L, which must have a minimum grade of 'B.'

*MTRE 2610, CPE 3000 must also have a "B" or better, same as CSE 1322/L

Major Elective Tracks (Concentrations) (Pick 1) (14 Credit hours)

Media-Production Track		Prerequisite	
MATH 3260 Linear Algebra I	MATH 1190	3	
CGDD 4113 3D Modeling & Animation	CS 3305	3	
CGDD 4603 Prod. Pipeline & Asset Mgmt.	CS 4722	3	
Free Electives		5	

Educational-Serious Track		Prerequisite	
CGDD 4313 Designing Online Learning Content & Environments	None	3	
TCOM 2010	ENGL 1102	3	
2 TCOM approved courses		6	
Free Electives		2	

Planning-Management Track		Prerequisite	
Pick 3	MGT 3100 Management and Behavioral Sciences	Permission of Coles	3
	MGT 4185 Tech & Innovation Mgmt	MGT 3200 and permission	3
	ENTR 4001 Entrepreneurial Mind	MGT 3100 and permission	3
	ENTR 4122 Venture Analysis	MGT 3100 or ENTRE 3001	3
	ENTR 4490 Special Topics in Entrepreneurship	Permission of Coles	
	SWE 3623 Software Systems Requirements	SWE 3313 & CSE 2300/MATH 2345 or CPE 3000	3
	SWE 4663 Software Project Management	SWE 3313 & STAT 2332	3
Free Electives		5	

Simulation-Informatics Track		Prerequisite	
CGDD 4703 Data Modeling & Simulation	STAT 2332	3	
Approved UL Computing course	Varies	3	
Free Electives		8	
Free Electives			

Creative-Content Track		Prerequisite	
CGDD 4113 3D Modeling & Anim.		CS 3305	3
MEBU 2270 Entertainment Media Prod.		Permission	3
Pick 2	MEBU 3370 Fun. Of Audio Prod.	MEBU 2270	6
	MEBU 4470 Adv. Audio Prod.	MEBU 3370	
	MEBU 4490 Special Topics	MEBU 3100 & Permission	
Free Electives			2

Contact CCSE Academic Advising if you are in, or considering, this concentration to discuss enrollment permission procedure.

Computer Science Track		Prerequisite	
		3	
		3	
		3	
Free Electives		5	

Custom Track
Must contain at least 9 credit hours of upper-level courses. Students are encouraged to consider Special Topics, Internships, and/or Directed Studies courses.

		3	
		3	
		3	
Free Electives		5	

Contact CCSE Academic Advising if you would like to create a custom track – ccseadvising@kennesaw.edu