

# Bachelor of Science in Computer Game Design & Development

On campus



Updated 4/19/2023

Catalog Year: 2022

Total Degree Credit Hours: 120

## General Education Requirements (See Degreeworks for Prerequisites)

A-1	ENGL 1101 Composition I	3	
	ENGL 1102 Composition II	3	
A-2	MATH 1113 Precalculus	3	

### Area A: Essential Skills (10 credit hours)

All Area A courses must be completed within the first 30 credit hours with a grade of C or higher.

B-1	ECON 1000 Contemporary Economic Issues	2	
B-2	AADS/AMST/ASIA/GWST/LALS/PAX/RELS 1102, COM 1100, FL 1002, LDRS 2300, PERS 2700, or POLS 2401	3	

### Area B: Institutional Options (5 credit hours)

Choose 1 course from B-2. COM 1100 is recommended.

C-1	ENGL 2110, 2120, 2130, 2300, or PHIL 2010	3	
C-2	ART 1107, MUSI 1107, DANC 1107, or TPS 1107	3	

### Area C: Humanities, Fine Arts, and Ethics (6 cr hrs)

Choose one course from each area.

D-1	MATH 1190 Calculus I	4	
D-2	BIOL 1107/L, CHEM 1211/L, PHYS 1111/L, PHYS 2211/L, BIOL 1108/L, CHEM 1212/L, PHYS 1112/L or PHYS 2212/L	4	
		4	

### Area D: Science, Math, and Technology (12 cr hrs)

Choose any two 4 credit hour science courses. A sequence is not necessary. "L" denotes the corresponding Lab course. Students **may not** take both PHYS 1111/L and PHYS 2211/L or PHYS 1112/L and PHYS 2212/L. Physics is recommended. Students complete 12 credit hours in this area with 2 hours carried over to Area F and Upper Div. Major requirements

E-1	POLS 1101 American Government	3	
E-2	HIST 2111 or 2112 US History	3	
E-3	HIST 1100, 1111, or 1112 World History	3	
E-4	CRJU 1101, GEOG 1101, PSYC 1101, SOCI 1101, STS 1101, ANTH 1102, or ECON 2106	3	

### Area E: Social Sciences (12 credit hours)

Choose one course from each area for E-2, E-3, & E-4.

## Area F Lower Division Major Requirements

	Prerequisites		
CSE 1321/L Programming & Problem Solving I		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 or CSE 2300 Discrete Structures for Computing	MATH 1113/1190	3	
	MATH 1113/1190 & CSE 1321/L		
STAT 2332 Probability and Data Analysis	MATH 1190	3	
CGDD 2012 Fundamentals of Game Design		2	
CGDD 2014 Fundamentals of Digital Game Development	Minimum grade of 'B' in CSE 1321/L & CGDD 2012*	1	
Carryover credit hour from Area D Group 2 Science Lab	See Area D Science requirement	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

## Upper Division Major Courses (46 Credit hours)

	Prerequisite		
<b>CSE 3153</b> Database Systems	CSE 1322/L	3	
<b>CSE 3801</b> Professional Practices and Ethics	CSE 1322/L	2	
<b>CS 3305</b> Data Structures	CSE 1322/L & (MATH 2345/CSE 2300), or MTRE 2610* or CPE 3000*	3	
<b>CS 4306</b> Algorithm Analysis	CS 3305	3	
<b>CS 4722</b> Computer Graphics and Multimedia	CS 3305	3	
<b>SWE 3313</b> Intro to Software Engineering	CSE 1322/L	3	
<b>SWE 3643</b> Software Testing and Quality Assurance	SWE 3313 or CPE 3000	3	
<b>SWE 4324</b> User-Centered Design	SWE 3313	3	
<b>CGDD 4242</b> Agent-Based Artificial Intelligence	CS 3305	3	
<b>CGDD 3103</b> Application Extension and Scripting	CGDD 2012 & CSE 1322/L	3	
<b>CGDD 4003</b> Digital Media and Interaction	CGDD 3103 or CS 3305	3	
<b>CGDD 4203</b> Mobile and Casual Game Development	CGDD 4003	3	
<b>CGDD 4303</b> Educational and Serious Game Design	CGDD 4003	3	
<b>CGDD 4803</b> Studio	CGDD 4003	3	
<b>CGDD 4814</b> Studio 2	CGDD 4803	4	
<b>1 credit carried over from Area D-1</b>	See Area D Science requirement	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 (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	-	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 Technology Management	MGT 3100 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		
Pick 2	CGDD 4113 3D Modeling & Anim.	CS 3305	3	
	MEBU 2270 Entertainment Media Prod.	Permission	3	
	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