

Bachelor of Science in Computer Game Design and Development

Catalog Year: 2017



Total Degree Credit hours: 120

General Education Requirements (See KSU Catalog for Prerequisites) Area F Requirements

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

Area A: Essential Skills (9 credit hours)
Must complete this area within first 30 credit hours.

B-1	ECON 1000 Contemporary Economic Issues	2	
B-2	COM 1100 Human Communication	3	

Area B: Institutional Options (5 credit hours)

C-1	ENGL 2000-level Approved Literature	3	
C-2	ART/DANC/MUSI/TPS 1107 Arts and Culture of the World	3	

Area C: Humanities/Arts (6 credit hours)
Choose one course from both groups.

D-1	MATH 1190 Calculus I	4	
D-2	CHEM 1211/L, PHYS 1111/L, PHYS 2211/L, BIOL 1107/L	8	
	CHEM 1212/L, PHYS 1112/L, PHYS 2212/L, BIOL 1108/L		

Area D: Science, Math & Technology (12 credit hours)
Physics is a recommended science course. "L" denotes accompanying lab course. *Chem 1211/L is a pre/corequisite of BIOL 1107/L. MATH 2202 Calc 2 is a prereq of PHYS 2212/L.*

E-1	POLS 1101 American Government	3	
E-2	HIST 2111/2112 US History	3	
E-3	HIST 1100/1111/1112 World History	3	
E-4	STS 1101 Science, Technology and Society	3	

Area E: Social Sciences (12 credit hours)
Choose one course from each group for requirements E-2 and E-3.

KSU 1101 KSU Freshman Seminar	3	
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F-1	CSE 1301 Programming and Problem Solving I	No Prerequisite	4	
F-2	CSE 1302 Programming and Problem Solving II	CSE 1301	4	
F-3	CSE 2300 Discrete Structures OR MATH 2345 Discrete Math	CSE 1301 & MATH 1113	3	
		MATH 1113		
F-4	MATH 2332 Intro to Probability and Data Analysis	MATH 1190	3	
F-5	CGDD 2002 Fundamentals of Game Design	No Prerequisite	3	
1 hour from Area D				

Updated 5/25/2017

Students must have a C or better in all prerequisite (including gen ed courses), Lower Division Major, Upper Division Major courses and Upper Level Concentration courses.

Upper Division Major Courses

		Prerequisites	
CSE 3801 Professional Practices and Ethics	CSE 1301	2	
CS 3304 Data Structures	CSE 1302 & (MATH 2345 or CSE 2300)	4	
CS 4306 Algorithm Analysis	CS 3304	3	
CS 4242 Artificial Intelligence	CS 3304	3	
CS 4722 Computer Graphics and Multimedia	CS 3304	3	
SWE 3313 Introduction to Software Engineering	CSE 1302	3	
SWE 3643 Software Testing and Quality Assurance	SWE 3313	3	
SWE 4324 User-Centered Design	CSE 1302	4	
CGDD3103 Application Extension and Scripting	CGDD 2002 & CSE 1302	3	
CGDD4003 Digital Media and Interaction	CGDD 3103 + SWE 3643+ CS 3304	3	
CGDD4203 Mobile and Casual Game Development	CGDD 4003	3	
CGDD4303 Educational and Serious Game Design	CGDD 4003	3	
CGDD4803 Studio	CGDD 4003	3	
CGDD4814 Capstone	CGDD 4803	4	
Free Electives	Varies	6	
Concentration – See Right (Pick 1)	Varies	9+	

* CS 3501 Computer Org & Arch and CS 3502 (Operating Systems) should be taken as elective prior to the courses in the Distributed-Mobile concentration

** MGT 4185 (Technology Management) & MGT 4122 (Venture Analysis) in addition to MGT 3100 as a pre-requisite, also require Permission from the Coles College of Business

*** MEBU 2270 will be used as a free elective if free elective requirement has not been satisfied with other courses.

Note: Students can define their own custom upper-level concentration under the guidance and approval of their CGDD advisor. This approval of a custom concentration must be granted prior to beginning the courses in the concentration.

Upper-Level Concentration (Pick 1)

Media-Production			
MATH 3312 Linear Algebra	MATH 1190	4	
CGDD 4113 3D Modeling and Animation	CS 3304	3	
CGDD 4603 Production Pipeline and Rendering	CS 4722	3	

Distributed-Mobile *			
SWE 3683 Embedded Systems Analysis & Design	CS 3304	3	
CS 4504 Distributed Computing	CS 3502*	3	
CS 4622 Computer Networks	CS 3501*	3	

Educational-Serious			
TCOM Two Approved Courses	Varies	6	
CGDD 4313 Designing Online Learning Content and Environments	TCOM 3030 or other approved TCOM course	3	

Planning-Management (pick 3)			
MGT 3100 Management and Behavior Sciences	No Prerequisite	3	
MGT 4185 Technology Management	MGT 3100 **	3	
MGT 4120 Venture Management	MGT 3100 **	3	
MGT 4121 Entrepreneurship and Creativity	Department Permission	3	
SWE 3623 Software Systems Requirements	SWE 3313 & MATH 2345 or CSE 2300	3	
SWE 4663 Software Project Management	SWE 3313 & MATH 2232	3	

Simulations-Informatics (pick 3)			
CSE 3153 Database Systems	CSE 1302	3	
CS 4504 Distributed Computing	CS 3502*	3	
CGDD 4703 Data Modeling and Simulation	MATH 2332	3	
CS 4999 Special Topics in Modeling and Simulation	Department Permission	3	

Content Creation			
CGDD 4113 3D Modeling and Animation	CS 3304	3	
MEBU 3370 Fundamentals of Audio Production and Tech	MEBU 2270***	3	
MEBU 4470 Advanced Audio Production and Tech	MEBU 3370	3	

Computer Science Concentration			
CS _____	varies	3	
CS _____	varies	3	
CS _____	varies	3	

CS courses in this concentration must be non-duplicative with major requirements

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