

Bachelor of Science in Computer Game Design and Development 2011 - 2012

AREA A: Essential Skills

Course	Hrs.	√
ENGL 1101 Composition I	3	
ENGL 1102 Composition II (*ENGL 1101)	3	
Math 2253 Calculus I	4	
Total Area A	9	Required
	+1	To Area F

AREA B: Institutional Options

Course	Hrs.	√
COMM 2400 Public Speaking	2	
STS 2400 Science, Technology, & Society (*ENGL 1101)	2	
Total Area B	4	

AREA C: Humanities/Fine Arts

Course <i>Take one from each of the following two groups:</i>	Hrs.	√
Literature of the World (Group 1) ENGL 2010, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, ENGL 2141, or ENGL 2142 (* ENGL 1102)	3	
Art and Culture of the World (Group 2) ARTS 2001, ARTS 2002, ARTS 2003 (*ENGL 1101) FREN 1002, GRMN 1002, or SPAN 1002	3	
Total Area C	6	

AREA D: Science, Math, and Technology

Course	Hrs.	√
Math 2254 Calculus II	4	
Take any two courses from the following for a total of 8 hours: ASTR 1000K, BIOL 2107K, BIOL 2108K, CHEM 1211K, CHEM 1212K, *PHYS 1111K, PHYS 1112K, PHYS 2211K, or PHYS 2212K (* see catalog)		
List lab science course → _____	4	
List lab science course → _____	4	
Total Area D	11	Required
	+1	To Area F

AREA E: Social Sciences

Course <i>Take one from each of the following four groups:</i>	Hrs.	√
American Context (Group 1): HIST 2111, HIST 2112, or POLS 1101	3	
World History (Group 2): HIST 1111, HIST 1112	3	
Behavioral Sciences (Group 3): ECON 1101, PSYC 1101, or SOCI 1101	3	
Cultures and Societies (Group 4): ES 1100, GEOG 1101, POLS 2401, or RELG 1200, ANTH 1102	3	
Total Area E	12	

AREA F

Course	Hrs.	√
CSE 1301 Programming & Problem Solving I	4	
CSE 1302 Programming & Problem Solving II (*CSE 1301)	4	
MATH 2345 Discrete Math	3	
MATH 2260 Probability & Stat	3	
1 hour each from Areas A & D	2	
CGDD 2002 Fundamentals of Game Design	2	
Total Area F	18	



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Computer Science and Software Engineering Topics

Course	Hrs.	√
CSE 2642 Professional Practices and Ethics	2	
CS 3224 Computer Organization & Architecture (*MATH 2345)	4	
CS 3424 Data Structures (*CSE 1302 & MATH 2345 & SWE 2313)	4	
CS 4253 Artificial Intelligence (*CS 3424)	3	
CS 4363 Computer Graphics & Multimedia (*CS 3424)	3	
SWE 2113 Intro to Software Engineering (*CSE 1302)	3	
SWE 3643 Software Testing & QA (*SWE 2313)	3	
SWE 4324 User-Centered Design (*CSE 1302 or IT 1324)	4	
Total CS and SWE Foundations	26	

Computer Game Design and Development Advanced Topics

Course	Hrs.	√
CGDD 3103 Application Extension and Scripting (*CGDD 2002)	3	
CGDD 4003 Digital Media and Interaction (*CGDD 2002)	3	
CGDD 4203 Mobile and Casual Game Development (*CGDD 4003)	3	
CGDD 4303 Educational and Serious Game Design (*CGDD 4003)	3	
CGDD 4803 Studio (*CGDD 4003)	3	
CGDD 4814 Capstone (*CGDD 4803)	4	
Total CGDD Advanced Topics	19	

Electives

Course	Hrs.	√
Free Elective → _____	3	
Free Elective → _____	3	
Total Electives	6	

Upper-Level Concentration (9 hours) (Pick One 3-Course Sequence)

1. Media-Production

Course	Hrs.	√
MATH 2255 Calculus III (*MATH 2254)	4	
CGDD 4113 3D Modeling and Animation (*CGDD3103 & CS4363)	3	
CGDD 4603 Production Pipeline and Rendering (*CGDD4003 and SWE3643)	3	

2. Distributed-Mobile

Course	Hrs.	√
SWE 3683 Embedded Systems Analysis & Design (*CS 3243)	3	
CS 4253 Distributed Computing (*CS 3243)	3	
CS 4263 Computer Networks (*CS 3243)	3	

3. Educational-Serious

Course	Hrs.	√
TCOM Approved Course → _____	3	
TCOM Approved Course → _____	3	
CGDD 4313 Designing Online Learning Content and Environments (TCOM3030 or other approved upper-division TCOM course)	3	

4. Planning-Management (pick 3 of the 4 courses)

Course	Hrs.	√
MGNT 3105 Management and Organizational Behavior	3	
MGNT 4185 Technology Management	3	
SWE 3623 Software Systems Requirements (*SWE 2313 & MATH 2345)	3	
SWE 4663 Software Project Management (*SWE2313)	3	

5. Simulations-Informatics

Course	Hrs.	√
CS 3153 Database Systems (*CSE1302)	3	
CS 4253 Distributed Computing (*CS3243)	3	
CGDD 4703 Data Modeling and Simulation (*MATH 2260)	3	

Total Required Hours for the BD CGDD Degree: 120

Students taking the Educational-Serious or Planning-Management concentration should consult with their advisor to ensure they have the required pre-requisite courses needed for the TCOM and MGNT courses (using free elective)