

Attachment B: Bachelor of Science in Computer Science---Associate in Applied Science in Game Design and Development

**Bachelor of Science in Computer Science, Game and Simulation
Programming Concentration – Associate in Applied Science in Game Design & Development
Joliet Junior College total credits = 107-108 Lewis University total credits = 31**

First Semester	Hours	Second Semester	Hours
CIS 122 Computer Information System Fundamentals	4	CIS 236 Programming in C	4
ENG 101 Rhetoric	3	GAME 202 3D Modeling	4
GAME 200 Game Design	4	MATH 139 Pre-Calculus II or MATH 142 Accelerated Trigonometry/Pre-Calculus	4 – 5
GAME 203 Game Production	3	Humanities or Fine Arts Course	3
CIS 135 CIS 135 Introduction to Programming	4	Social and Behavioral Science Course	3
Total Hours	18		18 – 19

Third Semester	Hours	Fourth Semester	Hours
GAME 211 Game Development I	4	GAME 212 Game Development II	4
GAME 213 Role Playing Game Programming	4	CIS 246 Advanced C using C++	4
GAME 232 Advanced 3D Modeling	4	GAME 214 Multi-Platform Game Development	4
CIS 223 JavaScript	3	MATH 137 Discrete Mathematics	4
CIS 211 Database Management Systems	3		
Total Hours	18		16

Fifth Semester	Hours	Sixth Semester	Hours
CIS 145 Fundamentals of Networking or CIS 263 Networking Essentials	3	Humanities or Fine Arts Course	3
Social and Behavioral Science Course	3	Social and Behavioral Science Course	3
COMM 101 Principles of Speech Communication	3	Science Course	3
Science Course	3	ENG 102 Rhetoric II	3
Humanities or Fine Arts Course	3	CIS 123 Linux Essentials Network Development Group	3
<i>THEO 10000 Search for Faith</i>	3	<i>SOCL 29000 Diversity and Social Justice</i>	3
Total Hours	18		18

Seventh Semester	Hours	Eighth Semester	Hours
PHIL 103 Introduction to Ethics	3	<i>MATH 30500 Linear Algebra</i>	3
CIS 269 Data Structures	4	<i>CPSC 35000 Operating Systems</i>	3
<i>MATH 20600 Applied Calculus OR MATH 20900 Calculus I</i>	4	<i>CPSC 47000 Artificial Intelligence</i>	3
<i>CPSC 30000 Computer Organization</i>	3	<i>CPSC 49200 Software Systems Capstone</i>	3
<i>CPSC 42000 Cybersecurity Essentials</i>	3	<i>Theoretical Principles**</i>	3
Total Hours	17		15

Courses listed in italics are Lewis courses; all other courses are JJC courses.

****Theoretical Principles (3): Choose one of the following.**

CPSC 42500 Encryption and Authentication
 CPSC 46000 Programming Languages
 CPSC 46500 Theory of Computation
 DATA 47100 Machine Learning
 MATH 30600 Advanced Linear Algebra
 MATH 35000 Numerical Analysis