## Attachment A: Bachelor of Science in Computer Science---Associate in Applied Science in Computer Programming

## Joliet Junior College total credits = 94, Lewis University total credits = 31

First Semester	Hours	Second Semester	Hours
CIS 122 Computer Information System	4	CIS 236 Programming in C	4
Fundamentals			
CYBIT 110 Operating Systems Fundamentals	3	CIS 216HTML & CSS for Web Design or CIS Elective	3
CIS 145 Fundamentals of Networking or CYBIT	3	CIS 123 Linux Essentials Network Development	3
200 Networking Essentials		Group	
ENG 101 Rhetoric	3	MATH 128 Elementary Statistics	4
CIS 135 Introduction to Programming	4	Humanities or Fine Arts Course	3
Total Hours	17		17

Third Semester	Hours	Fourth Semester	Hours
CIS 223 JavaScript	3	CIS 261 Java Programming	4
CIS 246 Advanced C using C++	4	CIS 269 Data Structures	4
CIS 211 Database Management Systems	3	CIS 250 System Analysis & Design	3
Science Course	3	Social & Behavioral Science Course	3
		Humanities or Fine Arts Course	3
Total Hours	14		17

Fifth Semester	Hours	Sixth Semester	Hours
MATH 137 Introduction to Discrete Math	4	Humanities or Fine Arts Course	3
Social & Behavioral Science Course	3	MATH 139 Pre-Calculus II or MATH 142 Accelerated	4-5
		Trigonometry/Pre-Calculus	
COMM 101 Principles of Speech Communication	3	ENG 102 Rhetoric II	3
Science Course	3	Social & Behavioral Science Course	3
THEO 10000 Search for Faith	3	SOCI 29000 Diversity and Social Justice	3
Total Hours	16		16-17

Seventh Semester	Hours	Eighth Semester	Hours
PHIL 103 Introduction to Ethics	3	MATH 30500 Linear Algebra	3
MATH 20600 Applied Calculus or MATH 20900	4	CPSC 35000 Operating Systems	3
Calculus I			
CPSC 30000 Computer Organization	3	CPSC 47000 Artificial Intelligence	3
CPSC 42000 Cybersecurity Essentials	3	CPSC 49200 Software Systems Capstone	3
		Theoretical Principles**	3
Total Hours	13		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 35000 Numerical Analysis
MATH 30600 Advanced Linear Algebra