

Attachment A: Bachelor of Science in Data Science---Associate in Mathematics

Joliet Junior College total credits = 89, Lewis University total credits = 33 (TOTAL=122)

| First Semester | Hours | Second Semester | Hours |
|---------------------------------------|-----------|--|--------------|
| STAT 101 Introduction to Data Science | 3 | ENG 102 Rhetoric II | 3 |
| MATH 128 Elementary Statistics | 4 | MATH 139 Pre-Calculus II or MATH 142 Accelerated Trigonometry/Pre-Calculus | 4 – 5 |
| ENG 101 Rhetoric | 3 | | |
| CIS 135 Computer Programming | 4 | CIS 261 Java Programming | 4 |
| | | Science Course | 4 |
| Total Hours | 14 | | 15-16 |

| Third Semester | Hours | Fourth Semester | Hours |
|--------------------------------|-----------|--|-----------|
| MATH 137 Discrete Mathematics | 4 | MATH 170 Calculus with Analytic Geometry I | 5 |
| STAT 228 Advanced Statistics | 3 | STAT 229 Statistical Programming | 3 |
| Humanities or Fine Arts Course | 3 | Social & Behavioral Sciences Course | 3 |
| CIS 269 Data Structures | 4 | Humanities or Fine Arts* Course | 3 |
| | | Science Course | 3 |
| Total Hours | 13 | | 17 |

| Fifth Semester | Hours | Sixth Semester | Hours |
|---|-----------|---|-----------|
| MATH 171 Calculus with Analytic Geometry II | 4 | MATH 172 Calculus with Analytic Geometry III | 4 |
| Social & Behavioral Sciences Course | 3 | STAT 230 Data Visualization | 3 |
| Humanities or Fine Arts Course | 3 | Social & Behavioral Sciences Course | 3 |
| COMM 101 Principles of Speech Communication | 3 | <i>DATA 23500 Programming for Data Analysis</i> | 3 |
| Total Hours | 13 | | 13 |

| Seventh Semester | Hours | Eighth Semester | Hours |
|---|-----------|--|-----------|
| <i>THEO 10000 Search for Faith</i> | 3 | <i>SOCI 29000 Diversity and Social Justice</i> | 3 |
| <i>CPSC 33000 Database Systems</i> | 3 | <i>DATA 400000 Big Data Systems</i> | 3 |
| <i>DATA 30000 Visualizing and Communicating Data Knowledge</i> | 3 | <i>DATA 47200 Introduction to Data Mining</i> | 3 |
| <i>DATA 47100 Machine Learning</i> | 3 | <i>CPSC 47000 Artificial Intelligences OR OTHER CONCENTRATION ELECTIVE</i> | |
| <i>MATH 36500 Mathematical Modeling or OTHER CONCENTRATION ELECTIVE</i> | 3 | <i>DATA 49000 Data Science Undergraduate Capstone Project</i> | 3 |
| Total Hours | 15 | | 15 |

*** Two different disciplines**

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