## Suggested Academic Plan Major: Bachelor of Science in Artificial Intelligence Methods and Applications

## **Total Credits: 120**

Semester 1	Credits	Semester 2	Credits
MATH 140 <i>Calculus with Analytical Geometry I</i> ( <u>GQ)</u> ETM Course	4	CMPSC 132 Programming and Computation II: Data Structures ETM Course	3
CMPSC 131 Programming and Computation I: Fundamentals ETM Course	3	STAT 200 Elementary Statistics OR DS 200 Introduction to Data Sciences (GQ) ETM Course	4
A-I 100 Artificial Intelligence: Automating Thinking to Augment Human Intellect (GS) ETM Course	3	ENGL 15 (GWS)	3
First-Year Seminar	1	CAS 100 (GWS)	3
General Education Selection	3	General Education Selection	3
Total Credits:	14	Total Credits:	16

Semester 3	Credits	Semester 4	Credits
CMPSC 360 Discrete Mathematics for Computer Science OR MATH 311W Concepts of Discrete Mathematics	3	DS 305 Algorithmic Methods and Tools OR CMPSC 465 Data Structures and Algorithms OR CMPSC 462 Data Structures	3
MATH 225 Mathematical Foundations for Machine Learning	4	STAT 401 Experimental Methods	3
General Education Selection	3	ENGL 202 (GWS)	3
General Education Selection	3	General Education Selection	3
Elective	3	General Education Selection	3
Total Credits:	16	Total Credits:	15

Semester 5	Credits	Semester 6	Credits
DS 310 Machine Learning for Data Analytics OR CMPSC 448 Machine Learning and Algorithmic Al OR CMPSC 445 Applied Machine Learning in Data Science	3	A-I 375 Knowledge representation and inference	3
A-I 341W Responsible Artificial Intelligence	3	Support Course Selection (Technical or Application)	3
A-I 370 Problem formulation and automated problem solving	3	Support Course Selection (Technical or Application)	3
Support Course Selection (Technical or Application)	3	General Education Selection	3
Elective	3	Elective	3
Total Credits:	15	Total Credits:	15

Semester 7	Credits	Semester 8	Credits
AIMA 430 <i>Capstone I: Project Design</i> OR A-I 494 <i>Research Project</i>	3	AIMA 440 <i>Capstone II: Project Implementation</i> OR A-I 494 <i>Research Project</i>	3
Support Course Selection (Technical or Application)	3	Support Course Selection (Technical or Application)	3
Support Course Selection (Technical or Application)	3	General Education Selection	3
General Education Selection	3	General Education Selection	3
Elective	3	Elective	2
Total Credits:	15	Total Credits:	14