

Computer Science - Artificial Intelligence/Machine Learning - B.S.

Degree Requirements

Total Academic Credits: 119

Major Credits: 78

Min. Upper-Level Credits: 45

Min. Cumulative GPA: 2.0

§ indicates Benchmark requirements

‡ indicates Gateway courses

Curriculum Notes

- This sample plan assumes no AP/IB/CLEP or transfer credit, foreign language proficiency up to the 201 level and a math placement level of MATH 151
- All students must complete a credit-bearing English and Mathematics course in the first year of study
- Gateway Course Information: advising.coeit.umbc.edu/gateway-information/computer-science-gateway

Year One

Fall Semester	Credits	Spring Semester	Credits
CMSC 201 Computer Science I (grade of B or better required) § ‡	4	CMSC 202 Computer Science II (grade of B or better required) § ‡	4
MATH 151 Calculus & Analytic Geom. (MATH GEP)	4	MATH 152 Calculus & Analytic Geometry II	4
Foreign Language 201	4	CMSC 203 Discrete Structures (grade of C or better required) § ‡	3
ENGL 100	3	AH GEP	3
Total	15	SS GEP	3
		Total	17

Year Two

Fall Semester	Credits	Spring Semester	Credits
CMSC 331 Programming Languages	3	CMSC 313 Computer Organization & Assembly	3
CMSC 341 Data Structures §	3	Language Programming §	
Science Sequence I (S non-lab GEP, see advisor)	4	MATH 221 Linear Algebra	3
SS GEP	3	Science Sequence II (S non-lab GEP)	4
Elective	3	Science Lab (GEP, see advisor, credit varies)	2
Total	16	SS GEP	3
		Total	15

Year Three

Fall Semester	Credits	Spring Semester	Credits
CMSC 304 Social & Ethical Issues in Information Technology (AH GEP, WI)	3	CMSC 421 Principles of Operating Systems	3
CMSC 411 Computer Architecture	3	CMSC 478 Machine Learning (AI/ML)	3
CMSC 471 Artificial Intelligence (AI/ML)	3	CMSC 4XX Elective (see elective requirements)	3
STAT 355 Probability & Statistics	4	AH GEP	3
Total	13	C GEP	3
		Total	15

Year Four

Fall Semester	Credits	Spring Semester	Credits
CMSC 441 Design & Analysis of Algorithms	3	CMSC 4XX AI/ML Elective	3
CMSC 4XX AI/ML Elective	3	CMSC 447 Software Engineering	3
Upper-level Elective	3	Electives (minimum of 7 credits; see advisor)	7
Electives (minimum of 6 credits; see advisor)	6	Total	13
Total	15		

Advising Coordinator: COEIT Advising coeitadvising@umbc.edu (mailto:coeitadvising@umbc.edu) ITE Building, Room 202-206