

ARTIFICIAL INTELLIGENCE - BACHELOR OF SCIENCE

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in Mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

Freshman		Credits
CSCI 1720	Computer Science I	4
CSCI 2210	Object-Oriented Programming	4
CSCI 2220	Introduction to Data Structures and Algorithms	4
MATH 1430G or MATH 1511G	Applications of Calculus I ¹ or Calculus and Analytic Geometry I	3
ENGL 1110G or ENGL 1110H or ENGL 1110M	Composition I or Composition I Honors or Composition I	4
Area III: Laboratory Science Course ²		3
Area IV: Social/ Behavioral Sciences Course ²		3
Area V: Humanities Courses ²		3
Electives as needed to meet the minimum credit requirement for financial aid ⁶		2
Credits		30
Sophomore		Credits
CSCI 2310	Discrete Mathematics for Computer Science	4
CSCI 2410	Practical Programming	2
CSCI 3710	Software Development	4
CSCI 3410	Introduction to Intelligent Agents Using Science Fiction	3
ENGL 2210G or ENGL 2210H or ENGL 2210M	Professional and Technical Communication or Professional and Technical Communication or Professional and Technical Communication for Multilingual Students	3
Area III or IV ²		3
Viewing the Wider World ³		3
Select one from the following:		3
CSCI 4435	Text Mining and Natural Language Processing	
CSCI 4440	Generative Artificial Intelligence	
Elective credits if needed for financial aid requirements ⁶		5
Credits		30
Junior		Credits
CSCI 3720	Data Structures and Algorithms	4
CSCI 4405	Artificial Intelligence I	3
CSCI 4140	Database Management Systems I	3
Elective Courses from List 1 or 2 ⁴		9
Area 6: Humanities ²		3
Non-Departmental Requirement in addition to Gen. Ed/WWW ⁵		3
Viewing a Wider World ³		3
Elective credits if needed for financial aid requirements ⁶		2
Credits		30

Senior		Credits
CSCI 4980 or CSCI 4999	Senior Project or Senior Thesis	4
CSCI 4420	Applied Machine Learning I	3
CSCI 4415	Introduction to Data Mining	3
Elective Courses from List 1 and 2 ⁴		9
Upper division electives to bring total upper division to 48 ³		4
Electives as needed to meet minimum credit requirements ⁶		6
CSCI 4110	Computing Ethics and Social Implications of Computing	1
Credits		30
Total Credits		120

¹ MATH 1430G Applications of Calculus I or MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter this course.

² See the list of General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses

³ See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses

⁴ See list of Computer Science electives (<https://catalogs.nmsu.edu/nmsu/arts-sciences/computer-science/computer-science-bachelor-science/#requirements>) in Degree Requirement Section. Students are encouraged to consider elective courses that concentrate on a certain topic.

⁵ **Non-Departmental Requirement: one of the following**

- MATH 1350G Introduction to Statistics
- MATH 2350G Statistical Methods
- A ST 311 Statistical Applications
- STAT 3110 Statistics for Engineers and Scientists
- STAT 4210 Probability: Theory and Applications

⁶ *Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.*

Students are encouraged to consult with their advisor regarding the possibility of enrolling in the combined BS+MS accelerated program (MAP) in Computer Science.