MACHINE LEARNING & AI (ML)

The Machine Learning and Artificial Intelligence (ML) minor positions students to engage, create, and critically evaluate emerging and evolving technologies. Students will learn the fundamentals of machine learning and have the opportunity to explore a variety of techniques, algorithms, and applications. Designed to complement a student's major and broader academic experiences, the minor deepens technical knowledge while reflecting the college's liberal arts mission. With an emphasis on communication, critical analysis, and ethical dimensions, students will approach issues associated with machine learning, artificial intelligence, and algorithms through an integrative perspective.

The following courses are required to complete the minor:

Code	Title
MATH 145	Multivariable Calculus
MATH 213	Linear Algebra and Differential Equations
CS 145	Introduction to Algorithm Design
ML/MATH 221	Applied Probability
ML 222	Applied Probability Seminar
ML/CS 240	Introduction to Machine Learning
ML 310/MATH 428	Intermediate Machine Learning
ML 400	Advanced Machine Learning

Note that MATH 145 has prerequisites of MATH 135 and possibly MATH 130. Students may be placed directly into MATH 145 depending on their prior calculus experience and their score in the math placement exam. Most math majors and a large number of BS CS majors start in MATH 145; it is reasonable to assume most students pursuing this minor will also start in MATH 145. Note also that the most closely aligned majors (MATH, CS, DA) cover many of the cognates in this minor; thus, most students pursuing this minor will need about three to four additional courses beyond what is already required in their major. Similarly, CS 145 requires placement or CS 105 as a prerequisite for CS 145.