

# Machine Learning in Biology and Medicine Certificate

## Machine Learning in Biology and Medicine Certificate Requirements

15-16 credits

Code	Title	Hours
Required Courses		
BIOL 1610 & BIOL 1615	Principles of Biology I (LS) and Principles of Biology I Lab (LAB)	5
MATH 1050  or BIOL 3150	College Algebra / Pre-Calculus (MA) (Prerequisites: MATH 1010 or MATH 1000 or ACT math score of 23 or higher.)  Biostatistics and the Scientific Method	3-4
Prerequisites: MATH 1050, BIOL 3010, and BIOL 3030		
CS 1400	Fundamentals of Programming (Prerequisites: CS 1030 or MATH 1010 or higher MATH course OR ACT math score of 23 or higher. )	3
BIOL 2070	Introduction to Machine Learning in Biology and Medicine (Prerequisites: BIOL 1610 and MATH 1050 or appropriate placement score to enter MATH 1060. )	3
BIOL 3070	Applied Machine Learning in Biology and Medicine (Prerequisites: BIOL 2070)	1

## Completion Requirements

1. Complete all coursework with a C- or higher.
2. Cumulative GPA of 2.5 or higher.

## Machine Learning in Biology and Medicine Certificate Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

1. Outline the foundational concepts of machine learning.
2. Integrate machine learning techniques into datasets in the life sciences.
3. Utilize machine learning to address and anticipate problems in the medical, environmental, and industrial sectors.
4. Develop industry-ready skills in machine learning specifically for the sciences.