# 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<br>& BIOL 1615 | Principles of Biology I (LS)<br>and Principles of Biology I Lab (LAB) [1] | 5 |
| MATH 1050 | College Algebra / Pre-Calculus (MA) (Prerequisites: MATH 1010 or MATH 1000 or ACT math score of 23 or higher.) [1] | 3-4 |
| or BIOL 3150 | Biostatistics and the Scientific Method | |
| 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. ) [1] | 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 |

1. COURSE FEE REQUIRED. See course fee tab for details.

## 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.