

BIO 4990/6990 Special Topics in Biological Sciences: Machine Learning in Biology
Course Schedule (Spring 2024)

Module	Dates	Topic	Assignments/Activities/Due Dates
1	1/17/24 1/19/24 1/22/24	Introduction and Basics of Python	Due 1/29/24 11:59 PM: ○ Computational Activity #0 (1/22/24)
2	1/24/24 1/26/24 1/29/24	Supervised Machine Learning: Linear and Logistic Regression	Due 2/5/24 11:59 PM: ○ Computational Activity #1 (1/29/24)
3	1/31/24 2/02/24 2/05/24 2/07/24 2/09/24	Classifiers	Due 2/7/24 11:59 PM: ○ Discussion Board #1 (2/7/24) Due 2/16/24 11:59 PM: ○ Computational Activity #2 (2/9/24)
1-3	2/12/24 2/14/24	Unit 1 Review and Exam	2/14/24 in Class: ○ Exam 1
4	2/16/24 2/19/24 2/21/24 2/23/24	Decision Trees and Ensemble Methods	Due 2/21/24: ○ Discussion Board #2 (2/21/24) Due 3/1/24 11:59 PM: ○ Computational Activity #3 (2/23/24)
5	2/26/24 2/28/24 3/01/24	Deep Learning and Fully Connected Neural Networks	Due 3/8/24 11:59 PM: ○ Computational Activity #4 (3/1/24)
6	3/04/24 3/06/24 3/08/24	Convolutional Neural Networks	Due 3/6/24 11:59 PM: ○ Discussion Board #3 (3/6/24) Due 3/15/24 11:59 PM: ○ Computational Activity #5 (3/8/24)
4-6	3/18/24 3/20/24	Unit 2 Review and Exam	3/20/24 in Class: ○ Exam 2
7	3/22/24 3/25/24	Other Types of Neural Networks	Due 3/25/24 11:59 PM: ○ Discussion Board #4 (3/25/24)
8	3/27/24 4/03/24	Generative Models and Transformers	Due 4/3/23 ○ Discussion Board #5 (4/3/24)
9	4/05/24 4/08/24 4/10/24 4/12/24 4/15/24 4/17/24	Unsupervised Machine Learning	Due 4/17/24 11:59 PM: ○ Discussion Board #6 (4/17/24) Due 4/22/24 11:59 PM: ○ Computational Activity #6 (4/15/24)

10	4/19/24 4/22/24 4/24/24	Challenges in Machine Learning	
1-10	4/26/24	Graduate Student Presentations	Due 4/25/24 11:59 PM ○ Graduate Student Projects
1-10	4/29/24	Final Exam Review	Note: The final exam will focus primarily on modules 7-10, but some questions may require the comprehensive knowledge gathered throughout the course.
**I reserve the right to edit the schedule if needed to accommodate pacing in the course. I will announce any changes in Canvas if this occurs.			