

Introduction to Machine Learning and Python

ECO 6936

Mondays – Wednesdays 11:45 AM – 1:40 PM (Periods 5 and 6)

Matherly Hall 0018

Spring 2022

Instructor:

Berkay Akyapı

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Office Hours: Mondays and Wednesdays 2:30 – 3:30 (Online or In Person at Matherly Hall Room 301-A)

Teaching Assistants:

None

Course Description

This course covers machine learning (ML) techniques by applying these to real-world economic data with Python. The course will provide programming exercises and assignments to introduce the syntax of Python and the relevant packages for machine learning.

Course Pre-Requisites

A basic proficiency in a programming language (e.g., R, STATA, MATLAB, C++) is required.

Prior exposure to probability theory, calculus and linear algebra is recommended.

Materials

No textbook required.

The following book is recommended for those who prefer to have a more in depth understanding about the theoretical background of the tools that we will be covering in the lectures.

Murphy, Kevin P. “*Probabilistic Machine Learning: An Introduction*”. MIT Press. February 2022. Online version available at: <https://probml.github.io/pml-book/book1.html>

Attendance Policy and Class Expectations

No attendance required. However, you are strongly encouraged to attend the lectures.

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Assignment -1	100	5%
Assignments 2 – 5 (4 Assignments)	100 each	60% (15% each)
Assignment - 6	100	5%
Project	100	30%

Grading Policy

Percent	Grade	Grade Points
93.0 - 100.0	A	4.00
89.0 - 92.9	A-	3.67
85.0 - 88.9	B+	3.33
80.0 - 84.9	B	3.00
77.0 - 79.9	B-	2.67
75.0 - 78.9	C+	2.33
72.0 - 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.