



Jordan University of Science and Technology
Faculty of Computer & Information Technology
Data Science Department

DS231 Machine Learning (2)

Second Semester 2023-2024

Course Catalog

2 Credit Hours. The course covers topics of unsupervised learning (clustering, density estimation, and dimensionality reduction); Recommendation systems; Applying these models on structured and structured data; Time series and data streams.

Teaching Method: On Campus

Text Book

Title	The Elements of Statistical Learning
Author(s)	Hastie, T., Tibshirani, R., Friedman, J.
Edition	2nd Edition
Short Name	ESL
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
RecSys	Practical Recommender Systems	Kim Falk	1st Edition	
Mitchell	Machine Learning	Tom M. Mitchell	1st Edition	

Instructor

Name	Dr. Ahmad Mustafa
Office Location	-
Office Hours	
Email	ammustafa@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Sun, Tue : 12:30 - 13:30

Room: G2120

Prerequisites

Line Number	Course Name	Prerequisite Type
1782300	DS230 Machine Learning (1)	Prerequisite / Study

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Association Rules	From ESL
Weeks 3, 4, 5, 6	Cluster Analysis	From ESL
Weeks 7, 8	Self-Organizing Maps	From ESL
Week 9	Principal Components Analysis	From ESL
Week 10	Multidimensional Scaling	From ESL
Weeks 11, 12, 13	Reinforcement Learning	From RecSys
Weeks 14, 15, 16	Recommender Systems	From Mitchell

Relationship to Program Student Outcomes (Out of 100%)

SO1	SO2	SO3	SO4	SO5	SO6

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