

Course Addendum

Semester: **Fall 2023** Subject Code: **BDA500** Section: **NAA**
Subject Title: **Machine Learning**
Professor: **Amir Moslemi** Office:
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Approved by: _____
Kathy Dumanski, Chair, School of Software Design and Data Science

Please read this addendum to the general course outline carefully. It is your guide to the course requirements and activities.

Please refer to the course outline for learning outcomes, course description and text and materials.

Please also visit sdds.senecacollege.ca for key information on courses, graduation requirements, transfer credit, and more from the School of Software Design and Data Science.

Assessment Summary

Labs	20%
Test(s)	25%
Assignment(s)	25%
Final exam	30%
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Total:	100%

Course Policies

To obtain a credit in this subject, a student must:

- Achieve a grade of 50% or better on the weighted average of the tests and final assessment.
- Grading Policy: <http://www.senecacollege.ca/about/policies/grading-policy.html>

Academic Policies:

<http://www.senecacollege.ca/about/policies/academics-and-student-services.html>

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TENTATIVE WEEKLY SCHEDULE
Semester: Fall 2022

Week	Topic or Skill	Reading	Assessment	Weight
Week 1 September 6-9	<ul style="list-style-type: none"> Course Overview Introduction to Machine Learning 	<ul style="list-style-type: none"> Textbook Chapter 1 Lecture Notes (PPT) 	Lab 1	2%
Week 2 September 12-16	<ul style="list-style-type: none"> Steps in a typical Machine Learning project 	<ul style="list-style-type: none"> Textbook Chapter 2 Lecture Notes (PPT) Example code 	Lab 2	3%
Week 3 September 19-23	<ul style="list-style-type: none"> Steps in a typical Machine Learning project Continued 	<ul style="list-style-type: none"> Textbook Chapter 2 Lecture Notes (PPT) Example code 	Lab 3	3%
Week 4 September 26 – 30	<ul style="list-style-type: none"> Classification 	<ul style="list-style-type: none"> Textbook Chapter 3 Lecture Notes (PPT) Example code 	Lab 4	7%
Week 5 October 3 - 7	<ul style="list-style-type: none"> Training Models 	<ul style="list-style-type: none"> Textbook Chapter 4 Lecture Notes (PPT) Example code 	Assignment 1	3%
Week 6 October 10-14	<ul style="list-style-type: none"> More Training Models 	<ul style="list-style-type: none"> Textbook Chapter 4 Lecture Notes (PPT) Example code 	Lab 5	3%
Week 7 October 17-21	<ul style="list-style-type: none"> Support Vector machines (SVM) 	<ul style="list-style-type: none"> Textbook Chapter 5 Lecture Notes (PPT) Example code 	Assignment 2 Mid-term Test	9% 25%
Study Week October 24 - 28				
Week 8 October 31 - November 4	<ul style="list-style-type: none"> Decision Tree 	<ul style="list-style-type: none"> Textbook Chapter 6 Lecture Notes (PPT) Example code 	Lab 6	3%

Week 9 November 7-11	<ul style="list-style-type: none"> Ensemble Learning & Random Forests 	<ul style="list-style-type: none"> Textbook Chapter 7 Lecture Notes (PPT) Example code 	Lab 7	3%
Week 10 November 14-18	<ul style="list-style-type: none"> Dimensionality Reduction 	<ul style="list-style-type: none"> Textbook Chapter 8 Lecture Notes (PPT) Example code 	Assign3	9%
Week 11 November 21-25	<ul style="list-style-type: none"> Unsupervised Learning Techniques 	<ul style="list-style-type: none"> Textbook Chapter 9 Lecture Notes (PPT) Example code 		
Week 12 November 28 – December 2	<ul style="list-style-type: none"> More Unsupervised Learning Techniques 	<ul style="list-style-type: none"> Textbook Chapter 9 Lecture Notes (PPT) Example code 		
Week 13 December 5-9	<ul style="list-style-type: none"> Introduction to Advanced Topics Course review 	<ul style="list-style-type: none"> Textbook Chapter10 Lecture Notes (PPT) 	Q & A	
Week 14 December 12-16	Final Assessment		Final Assessment	30%

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