Course Syllabus

(click on the home link to the left over there somewhere if you want to read details about the course… I say want, but really you should read it)

Required Text:

- **Tom Mitchell, Machine Learning. McGraw-Hill, 1997. (http://www.cs.cmu.edu/afs/cs.cmu.edu/user/mitchell/ftp/mlbook.html)**

Optional Text:

- **Larry Wasserman, All of Statistics. Springer, 2010.** **(http://www.stat.cmu.edu/~larry/all-of-statistics/)** (Read Part 1 for an intro to Probability Theory)
- Richard Sutton and Andrew Barto, Reinforcement Learning: An introduction. (for Reinforcement Learning) (**Nov 5, 2017 version** **(http://incompleteideas.net/book/bookdraft2017nov5.pdf)**)

Files:

- Find other reading material we sorted out in the Files section.

Course Summary:

Date	Details	Due
Mon Aug 22, 2022	📅 **Decision Trees (https://gatech.instructure.com/calendar?event_id=3698541&include_contexts=course_265202)**	12am
	📅 **ML is the ROX (https://gatech.instructure.com/calendar?event_id=3698553&include_contexts=course_265202)**	12am
Mon Aug 29, 2022	📅 **Neural Networks (https://gatech.instructure.com/calendar?event_id=3698533&include_contexts=course_265202)**	12am
	📅 **Regression and Classification (https://gatech.instructure.com/calendar?event_id=3698551&include_contexts=course_265202)**	12am
Fri Sep 2, 2022	📅 **Office Hours #1 (https://gatech.instructure.com/calendar?event_id=3712833&include_contexts=course_265202)**	2pm to 3pm

Date	Details	Due
Mon Sep 5, 2022	📅 **Ensemble Learning** (https://gatech.instructure.com/calendar? event_id=3698565&include_contexts=course_265202)	12am
	📅 **Instance-Based Learning** (https://gatech.instructure.com/calendar? event_id=3698567&include_contexts=course_265202)	12am
Mon Sep 12, 2022	📅 **Kernel Methods and SVMs** (https://gatech.instructure.com/calendar? event_id=3698545&include_contexts=course_265202)	12am
Mon Sep 19, 2022	📅 **Computational Learning Theory** (https://gatech.instructure.com/calendar? event_id=3698559&include_contexts=course_265202)	12am
	📅 **VC Dimensions** (https://gatech.instructure.com/calendar? event_id=3698555&include_contexts=course_265202)	12am
Sun Sep 25, 2022	📝 **Supervised Learning** (https://gatech.instructure.com/courses/265202/assignments/1174600)	due by 11:59pm
Mon Sep 26, 2022	📅 **Bayesian Learning and Inference** (https://gatech.instructure.com/calendar? event_id=3698531&include_contexts=course_265202)	12am
Mon Oct 3, 2022	📅 **Information Theory** (https://gatech.instructure.com/calendar? event_id=3698563&include_contexts=course_265202)	12am
	📅 **Randomized Optimization** (https://gatech.instructure.com/calendar? event_id=3698543&include_contexts=course_265202)	12am
Wed Oct 5, 2022	📝 **Problem Set 1** (https://gatech.instructure.com/courses/265202/assignments/1174594)	due by 11:59pm
Tue Oct 11, 2022	🚀 **Midterm** (https://gatech.instructure.com/courses/265202/assignments/1174584)	due by 9pm

Date	Details	Due
Sun Oct 16, 2022	**Randomized Optimization** (https://gatech.instructure.com/courses/265202/assignments/1174598)	due by 11:59pm
Wed Oct 19, 2022	**Clustering** (https://gatech.instructure.com/calendar?event_id=3698547&include_contexts=course_265202)	12am
Mon Oct 24, 2022	**Feature Selection** (https://gatech.instructure.com/calendar?event_id=3698537&include_contexts=course_265202)	12am
	Feature Transformation (https://gatech.instructure.com/calendar?event_id=3698557&include_contexts=course_265202)	12am
Fri Oct 28, 2022	**Withdrawal Deadline** (https://gatech.instructure.com/calendar?event_id=3698523&include_contexts=course_265202)	3pm to 4pm
Mon Oct 31, 2022	**Markov Decision Processes** (https://gatech.instructure.com/calendar?event_id=3698539&include_contexts=course_265202)	12am
Sun Nov 6, 2022	**Unsupervised Learning and Dimensionality Reduction** (https://gatech.instructure.com/courses/265202/assignments/1174602)	due by 11:59pm
Mon Nov 7, 2022	**Reinforcement Learning** (https://gatech.instructure.com/calendar?event_id=3698535&include_contexts=course_265202)	12am
Mon Nov 14, 2022	**Office Hours #11** (https://gatech.instructure.com/calendar?event_id=3698527&include_contexts=course_265202)	2pm to 3pm
Mon Nov 21, 2022	**Game Theory** (https://gatech.instructure.com/calendar?event_id=3698549&include_contexts=course_265202)	12am
Thu Nov 24, 2022	**Problem Set 2** (https://gatech.instructure.com/courses/265202/assignments/1174596)	due by 9pm

Date	Details	Due
Sun Nov 27, 2022	📝 **Markov Decision Processes** **(https://gatech.instructure.com/courses/265202/assignments/1174592)**	due by 11:59pm
Tue Dec 13, 2022	🚀 **Finals** **(https://gatech.instructure.com/courses/265202/assignments/1174588)**	due by 1:59am
	📝 **CS 7641 Machine Learning** **(https://gatech.instructure.com/courses/265202/assignments/1174590)**	
	🚀 **Midterm (Test your Setup)** **(https://gatech.instructure.com/courses/265202/assignments/1174586)**	