Introduction to Machine Learning (CSC 311)

University of Toronto, Fall 2020 Course Information

Important Links

- **Course web site:** `http://www.cs.toronto.edu/~rgrosse/courses/csc311_f20/`
- **Markus:** `https://markus.teach.cs.toronto.edu/csc311-2020-09/`
- **Piazza:** `https://piazza.com/utoronto.ca/fall2020/csc311`
- **Quercus:** `https://q.utoronto.ca/courses/180982`
- **Zoom:** See Quercus.

All course materials (schedule, lecture and tutorial slides, readings, homeworks) can be found on the course web site (see above).

Schedule

Each section of this course corresponds to one lecture and one tutorial time. Class will be held synchronously online every week, including a combination of lecture and tutorial exercises. Students are expected to attend both lectures and tutorials. There will be two mandatory exams held during the scheduled class time.

- LEC0101, LEC0102, LEC2001: lecture Monday 11:00-13:00, tutorial Monday 15:00-16:00.
- LEC0201, LEC0202: lecture Thursday 16:00-18:00, tutorial Thursday 19:00-20:00.

See the course web page for information about lecture and tutorial topics.

Online delivery Lectures and tutorials will be delivered synchronously via Zoom, and recorded for asynchronous viewing by enrolled students. Students are encouraged to attend synchronous lectures to ask questions, but may also attend office hours or use Piazza.

Prerequisites

- **Programming Basics:** CSC207/ APS105/ APS106/ ESC180/ CSC180
- **Multivariate Calculus:** MAT235/ MAT237/ MAT257/ (minimum of 77% in MAT135 and MAT136)/ (minimum of 73% in MAT137)/ (minimum of 67% in MAT157)/ MAT291/ MAT294/ (minimum of 77% in MAT186, MAT187)/ (minimum of 73% in MAT194, MAT195)/ (minimum of 73% in ESC194, ESC195)
- **Linear Algebra:** MAT221/ MAT223/ MAT240/ MAT185/ MAT188
- **Probability:** STA237/ STA247/ STA255/ STA257/ STA286/ CHE223/ CME263/ MIE231/ MIE236/ MSE238/ ECE286
  - Due to the scheduling problems created by the cancellation of the winter offering, *just this year* we are allowing probability as a co-requisite. I.e., you may take the probability prerequisite concurrently with CSC311.

Course Evaluation

- 4 homework assignments: 45%
- 2 1-hour exams held during class hours: 25% total (15% higher mark, 10% lower mark)
- Final project: 25%
- Paper reading: 5%. (See course website for details.)

Homeworks

There will be 4 assignments in this course. The assignments will be released on the course webpage.

Format. Homeworks must be submitted in PDF format through MarkUs. We encourage typesetting using LaTeX, but scans of handwritten solutions are also acceptable as long as they are legible.

Lateness. Homeworks will be accepted up to 3 days late, but 10% will be deducted for each day late, rounded up to the nearest day. No credit will be given for assignments submitted after 3 days. Extensions will be granted only in special situations, and you will need a Student Medical Certificate or a written request approved by the course coordinator at least one week before the due date.

Weighting. All homeworks will be weighted equally.

Collaboration policy. Collaboration on the assignments is not allowed. Each student is responsible for his/her own work. Discussion of assignments should be limited to clarification of the handout itself, and should not involve any sharing of pseudocode or code or simulation results. Violation of this policy is grounds for a semester grade of F, in accordance with university regulations.

Remarks. Remark requests should be made through MarkUs, and will be considered by the same TA who marked the assignment. The deadline for requesting a remark is one week after the marked assignments are returned. Remarks may result in a decrease in the grade.

Exams

Exams will be closed-book and held during class hours. Focus will be placed on material introduced during lecture. More details will be provided during the term.

Missed exams. Missed exams will get a score of 0 except in the case of a valid medical reason or prior approval by the instructors.

- In case of illness, you should complete the absence declaration form on ACORN and notify the instructors to request special consideration.
- To obtain instructor approval for any other reason, the request must be made at least one week in advance of the exam date.

Final Project

25% of the course grade will be a final project. Details will be posted on the course web site.