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M 595.02: Special Topics - Statistical Learning

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Syllabus: M 595 02 Statistical Learning

Instructor: Brian Steele. Office: Math 314. 243-5396. brian.steele@umontana.edu

Office hours: Monday, Wednesday, 3:00-3:50, and Tuesday 1:00-2:00, and by appointment.

Course Format: Monday, Wednesday, Friday 2:00-2:50 p.m., Math 305.

Learning Outcomes

1. Develop practical experience with machine learning techniques.
2. Understand the underlying principles supporting the machine learning techniques.
3. Become adept at using Python.

Course Content We will cover approximately half of the content of Géron's textbook, *Hands-on Machine Learning with SciKit-Learn, Keras & Tensorflow*.

Textbook: *Hands-on Machine Learning with SciKit-Learn, Keras & Tensorflow*. Aurélien Géron .

Prerequisites: STAT 452 or M 422 or consent of the instructor.

Homework: Homework exercises will be assigned roughly biweekly.

Grading: 80% homework. Students are to present material to the class from the textbook or a discussion of problems amenable to machine learning techniques from their field (20%).

Additional Information: Incompletes are given at the discretion of the instructor and are only considered in cases where the student has been in attendance and doing passing work up to three weeks before the end of the semester, and for reasons beyond the students control and which are acceptable to the instructor, the student has been unable to complete the requirements of the course on time. Negligence and indifference are not acceptable reasons.

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. Reasonable means the University permits no fundamental alterations of academic standards or retroactive modifications.

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary action by the University. All students need to be familiar with the Student Conduct Code. You can find it in the A-Z index on the UM home page or at <https://www.umt.edu/student-affairs/community-standards/default.php>.

Important Dates:

1. Monday, February 21—Presidents' Day. No classes.
2. Monday, March 21 — Friday, March 25. Spring Break. No classes.
3. Friday, May 6—Last Day of class.