Instructor: Dr. Lourdes Peña-Castillo
Office: ER-6037        Phone: 864-6769
Email: Use Brightspace (D2L) shell's email. Email will be replied within two working days.

Lectures: MWF 12:00 – 12:50 pm (Location online room)
Office Hours: Monday 9:00 – 11:00 am, or by appointment through Skype or Zoom.

Course Description:
This course provides a broad introduction to machine learning. Topics covered include supervised learning methods, ensemble learning, model selection and evaluation, and deep learning. The course will also discuss recent applications of machine learning.

Pre-requisites:
Python programming, a statistics course at the undergraduate level (similar to STAT 2550), and a linear algebra course at the undergraduate level (similar to MATH 2050).

Course Activities:
1. Four (4) programming assignments
2. One review article
3. In-class participation
4. One final exam

Textbooks:
• An Introduction to Statistical Learning. G. James, D. Witten, T. Hastie and R. Tibshirani. Springer. 2013 (https://www-bcf.usc.edu/~gareth/ISL/)

Evaluation Scheme:
Assignments (4)  40%
Article  25%
In-class participation (TopHat)  10%
Final exam  25%

TopHat Account (for in-class participation):
Student Account to be created at https://app.tophat.com/register/student/
Course code: 428518
Notes:
1. In the event of university closure on the day of a test, the test will be given in the next class meeting.
2. Assignments will be submitted in electronic format using the Dropbox application in Brightspace. **No late assignments will be accepted.**
3. In-class participation will be credited by using TopHat. TopHat quiz is the only means of obtaining credit for in-class participation.
4. Course materials, news and communications will be available from the Brightspace system.
5. All grades will be assigned according to the University Calendar (Section 6.9.2 under University Regulations).
6. All written materials delivered must comply with the expectations of Good Writing set out in the University Calendar (Section 6.9.3 under University Regulations).
7. If, for special circumstances (such as medical or bereavement), you miss a deadline for a grade item, notify your professor as soon as possible and no later than 48 hours after the original deadline, providing any necessary related documentation (if documentation is required). Failure to do this might result in a mark of 0% for that grade item. For more information, please see Section 6.7.5 and Section 6.15.6 under University Regulations in the University Calendar or consult the Registrar's Office.
8. From section 6.12 of the University Calendar: “A student is expected to adhere to those principles which constitute proper academic conduct. Academic misconduct cannot be condoned or even appear to be condoned. A student has the responsibility to know which actions, as described under Academic Offences, could be construed as dishonest or improper.”. Note that when two or more students submit identical or nearly identical work claiming it is their own, it is a clear sign of improper academic conduct. Students found guilty of an academic offence may be subject to a number of penalties commensurate with the offence including reprimand, reduction of grade, probation, suspension or expulsion from the University. In addition, see “Avoiding plagiarism – a guide”.
9. Memorial University of Newfoundland is committed to supporting inclusive education based on the principles of equity, accessibility and collaboration. Accommodations are provided within the scope of the University Policies for the Accommodations for Students with Disabilities. Students who may need an academic accommodation are asked to initiate the request with the Glenn Roy Blundon Centre at the earliest opportunity (www.mun.ca/blundon).
10. The lectures and displays (and all material) delivered or provided in this course, including any visual or audio recording thereof, are subject to copyright owned by the instructor of the course. It is prohibited to record/copy and distribute by any means, in any format, openly or surreptitiously, in whole or in part, in the absence of express written permission from the instructor any of the lectures or materials provided or published in any form during or from the course.
11. It is the responsibility of the instructor to determine, maintain and enforce the standards of behavior acceptable to preserving an atmosphere appropriate for teaching and learning. Students will be warned if their behavior is evaluated by the instructor as disruptive.
12. Although changes to this document are not intended at this time, any part of this course outline can be subject to change, particularly during the first two weeks of classes. Students should be aware that the latest version of the course outline will be available through the Brightspace shell for the course.

Assignments:
- Assignments will be done in groups of two students.
- Assignment programs have to be implemented in Python 3.
- Assignment programs are required to run in linux command-line.
- For each assignment, data and interface specifications will be provided. If the assignment program does not run according with the specifications, points will be deducted.
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<td>Intro to 6915 and to ML (ESLII Ch2, DL Ch5)</td>
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<td>Model assessment and selection</td>
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