

# **CMPU4011: Machine Learning for Data Analytics**

Dr. Svetlana Hensman

[Svetlana.Hensman@TUDublin.ie](mailto:Svetlana.Hensman@TUDublin.ie)

## Module admin

Classes schedule:

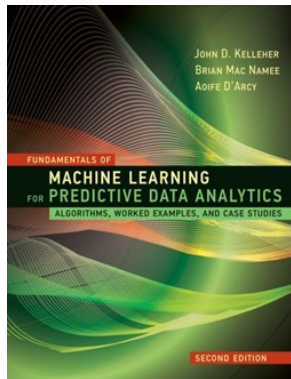
- Lectures: Mondays 4-6pm
- Labs: Tuesdays 11am-1pm

Assignment: 30% of the module mark, combination of:

- in-class lab work (5 labs x 2 marks each)
- a project (20 marks)

## Course textbook

**Fundamentals of Machine Learning for Predictive Data Analytics: Algorithms, Worked Examples, and Case Studies.** *By John D. Kelleher, Brian Mac Namee and Aoife D'Arcy (2nd ed)*



<https://mitpress.mit.edu/books/fundamentals-machine-learning-predictive-data-analytics>

## Course Topics

- What is Machine Learning and Data Analytics
- Data Exploration
- Machine learning models
  - Information-based learning
  - Similarity-based learning
  - Probability-based learning
  - Error-based learning
  - Deep learning
- Model evaluation
- Ethical considerations and ML

## Housekeeping

- All notes will be available on Brightspace
- Lectures and labs will be in person on campus
- Emails will be sent through the class list on Brightspace
  - if one of your colleagues is not receiving the class emails they'll need to enrol in BS.