CADT
Cambodia Academy of Digital Technology

Fundamental of Machine Learning
Course Overview

Lecturer: Soklay HENG

Academic Year: 2026-2027

Biography

Soklay HENG

Educational Background

- 2025 - Present PhD Student, Université de Lorraine, France
- 2022 MSc in Natural Language Processing, Université de Lorraine, France

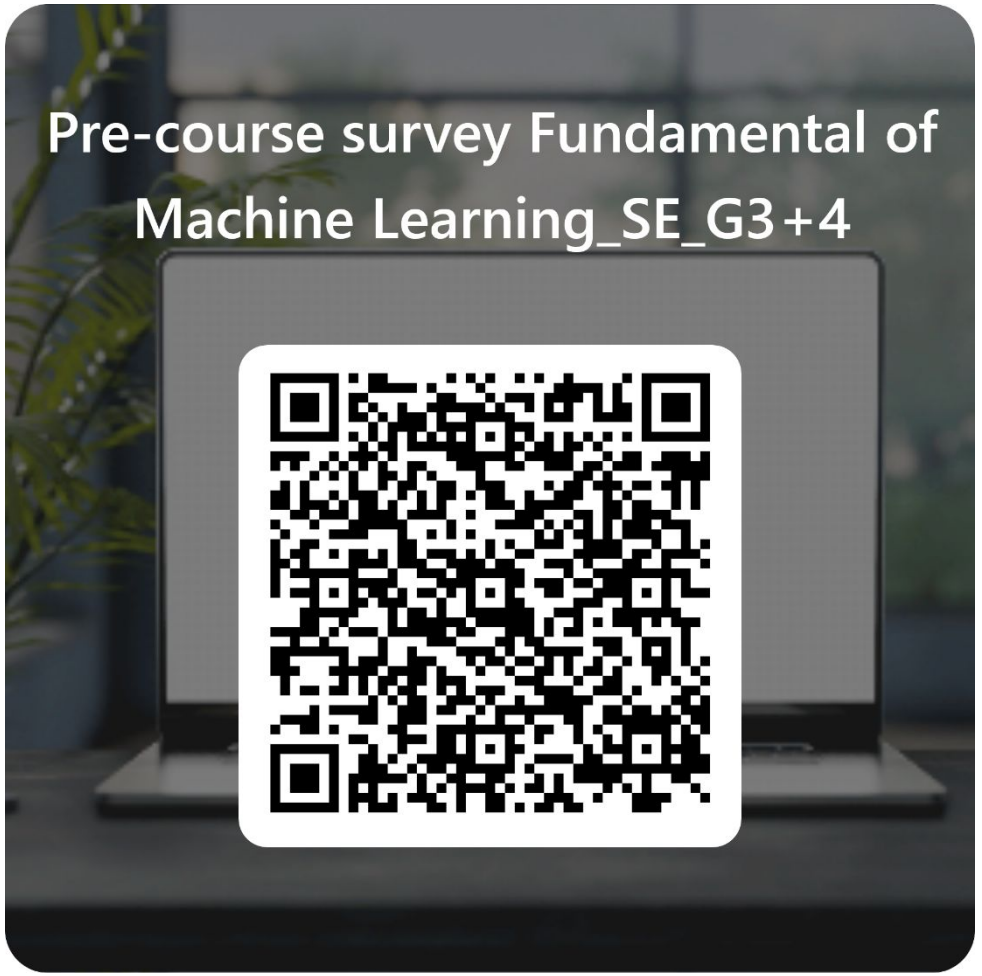
Working Experience

- 2022 - Present – AI researcher & ML teacher,
  IDRI

Contact

- Email: soklay.heng@cadt.edu.kh
- Telegram: @soklayheng

Pre-course Survey



Course Information

Course's Name	**Fundamental of Machine Learning**
Credit	3 Credits – 45 hours
Teaching Strategy	Active Learning (Theories + Labs)
Class Material	CADT's Learning Management System (LMS)

Assessment

Attendance & Class Participation	**10 %**
Quizzes & Labs	**15 %**
Research & Presentations	**10 %**
Midterm	**10 %**
Projects	**25 %**
Final Exam	**30 %**

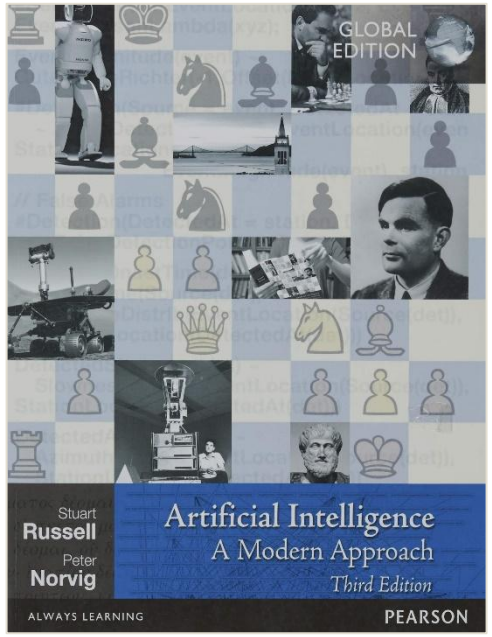
Rules and Regulations

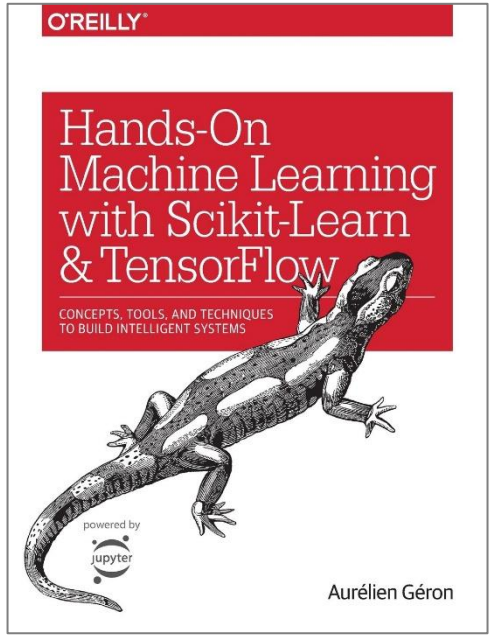
- **Phone & electronic devices** are not allowed during the lectures.
- Respect the deadline.
- **15 minutes** after the start of the class will be counted as **being late**.
- **3 lates** will be counted as **1 unexcused absence**.
- **3 excused absences** will be counted as **1 unexcused absences**.
- **5 unexcused absences** will result in **10%** reduction on the course's **final grade**.
- **10 unexcused absences** will result in **50%** reduction on the course's **final grade**.
- Need to attend at least **80%** of classes to pass the course.

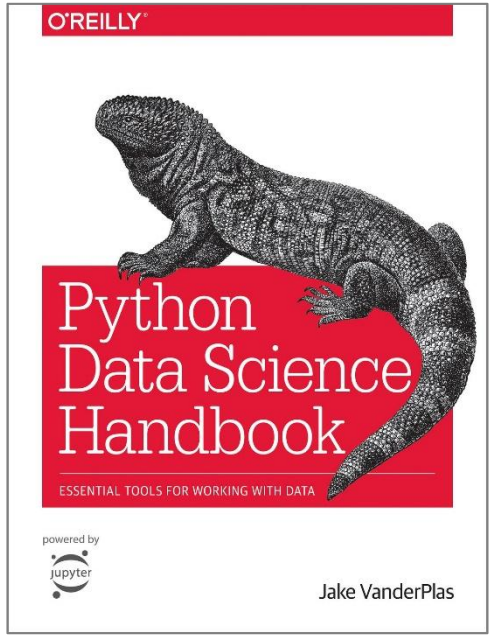
Course Learning Outcome

1. Understand **fundamental concepts** of Machine Learning (ML).
2. Know the basis of **Python Programming** and **Statistics**.
3. Know the basis of how to **analyze** and **preprocess** data, **train** and **evaluate** the ML models.
4. Understand and able to apply basic **ML algorithms** (**Regression**, **Classification** and **Clustering)**.
5. Acquire the capability to identify **real-life problems** and apply **appropriate ML techniques**.

Learning Materials







Download link

Technologies and Tools

python™

ANACONDA®

jupyter

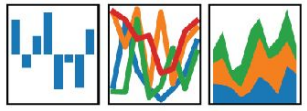
scikit learn

NumPy

matplotlib

pandas

$$y_i t = \beta' x_{it} + \mu_i + \epsilon_{it}$$



	BandName	WavelengthMax	WavelengthMin
0	CoastalAerosol	450	430
1	Blue	510	450
2	Green	590	530
3	Red	670	640
4	NearInfrared	880	850
5	ShortWaveInfrared_1	1650	1570
6	ShortWaveInfrared_2	2290	2110
7	Cirrus	1380	1360

TensorFlow

K Keras