UNIVERSITI MALAYA	**MAKLUMAT KURSUS UNTUK SEMESTER/PENGGAL SEMASA** ***COURSE INFORMATION FOR CURRENT SEMESTER/TERM***

Sesi Akademik *Academic Session*	2024/2025
Semester/Penggal *Semester/Term*	2
Kod Kursus *Course Code*	WQD7006/WQD7012
Tajuk Kursus *Course Title*	Machine Learning for Data Science Applied Machine Learning
Bahasa Pengantar *Medium of Instruction*	Bahasa Inggeris *English*
Rujukan Utama *Main Reference*	1. Lecture notes and resouces 2. Prateek Agrawal (2022), Machine Learning and Data Science: Fundamentals and Applications, ISBN: 978-1-119-77561-4, Publisher: wiley 3. Michele di Nuzzo, Data Science and Machine Learning: From Data to Knowledge, 2021, ISBN-13 : 979-8779849456 4. Dirk P. Kroese (2019), Data Science and Machine Learning: Mathematical and Statistical Methods,ISBN-10 : 1138492531, Publisher : Chapman and Hall/CRC; 1st edition
Strategi Pembelajaran *Learning Strategies*	Kuliah, makmal dan tutorial *Lecture, lab and tutorial*
Masa Pembelajaran Pelajar *Student Learning Time*	Bersemuka / *Face to face* : 19 jam /Tidak BersemukaNon face to face: 39.5 jam Masa Persediaan Pelajar / *Student Preparation Time*: 104 jam
Kemahiran Boleh Pindah Transferable Skills	Data analytics, machine learning, and modeling skill; Result interpretation and presentation skill;
Pensyarah / *Lecturer* Bilik / *Room* Telefon/e-mel *Telephone/e-mail*	Dr. Riyaz Ahamed riyaz@um.edu.my
Sesi Kuliah / Lecture Session: Hari/Masa / Day/Time Tempat / Venue Tutorial/Practical Session:	1500hr - 17000hr (3.00 pm to 5 .00 pm) – Group -3 and RL Sunday Dalam talian/ Online 1700hr - 1800hr (5.00 pm to 6.00 pm)

Perincian Pemberatan Penilaian *Detail of Assessment Weightage*	**Penilaian Berterusan / Continuous Assessment : 50%** Quiz (10%): Week 6 Mid-Term Test (15%): Week 09 Group Assignment's Report – Project (25%): Week 12 **Peperiksaan Akhir / Final Examination : 50%** Alternative Assessment. - TBC Individual Assignment – 30 % Group Assignment – 20 %

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Jadual Pengajaran / *Teaching Schedule*

Minggu Week	Topik & Aktiviti Topic & Activities	Rujukan References
1	Introduction to Module – Machine Learning for Data Science. Activities: Ice breaking, Lecture 1, and Tutorial 1	Lectuer Notes & Resources
2	Introduction to Machine Learaning Activities: Lecture 2, Tutorial 2	Lectuer Notes & Resources
3	Data Preprocessing Activities: Lecture 3, Tutorial 3	Lectuer Notes & Resources
4	Supervised Learing – Classification- K-Nearest Neighbors, & Naive Bayes Activities: Lecture 4, Tutorial 4	Lectuer Notes & Resources
5	Linear & Logistic Regression Activities: Lecture 5, Tutorial 5	Lectuer Notes & Resources
6	Decision Tree Random Forest, Ensemble Method Activities: Lecture 6, Tutorial 6, and Quiz	Lectuer Notes & Resources
7	Unsupervised algorithms – Clustering Activities: Lecture 7, Tutorial 7	Lectuer Notes & Resources
8	Neural Networks - Deep Learning-CNN Activities: Lecture 8, Tutorial 8	Lectuer Notes & Resources

9	Cloud Infrastructure for ML Activities: Lecture 9, Tutorial 9	Lectuer Notes & Resources
10	Industrial Talk – Guest Lecture – TBC	Lectuer Notes & Resources
11	Reinforcement learning Activities: Lecture 10, Tutorial 10	Lectuer Notes & Resources
12	Group assessment project presentation	Online
13	MLOPS Activities: Lecture 11, Tutorial 11	Lectuer Notes & Resources
14	Trending Topics in Machine Learning and Revision	Lectuer Notes & Resources