UNIVERSITI MALAYA

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

Sesi Akademik *Academic Session*	2023/2024
Semester/Penggal *Semester/Term*	2
Kod Kursus *Course Code*	WQD7003
Tajuk Kursus *Course Title*	Data Analytics
Bahasa Pengantar *Medium of Instruction*	English
Rujukan Utama *Main Reference*	1. Moreira, J., de Leon Ferreira, A. C. P., & Horváth, T. (2019). *A general introduction to data analytics*. Wiley. 2. VanderPlas, J. (2016). Python Data Science Handbook: Essential Tools for Working with Data. *J. VanderPlas.–O'Reilly Media*. 3. Analytics in a Big Data World : The Essential Guide to Data Science and Its Applications , Bart Baesens, Wiley 2014 4. Lander, J.P., R for Everyone: Advanced Analytics and Graphics (Addison-Wesley Data & Analytics Series), 2013 5. McKinney, W. (2012). Python for data analysis: Data wrangling with Pandas, NumPy, and IPython. " O'Reilly Media, Inc.".
Strategi Pembelajaran *Learning Strategies*	Synchronous (F2F): Lecture and Lab Asynchronous (NF2F): Lecture and Lab
Masa Pembelajaran Pelajar *Student Learning Time*	Bersemuka / *Face to face* : 24 hours Tidak Bersemuka / *Non Face to face*: 18 hours Masa Persediaan Pelajar / *Student Preparation Time*: 78 hours
Kemahiran Boleh Pindah Transferable Skills	Pemikiran analitik data / *Data analytic thinking* Pembuatan keputusan / *Decision making* Memahami data / *Making sense of data*
Pensyarah / *Lecturer* Bilik / *Room* Telefon/e-mel *Telephone/e-mail*	G1 - Dr. Saw Shier Nee, G2 - Assoc. Prof. Dr. Kasturi Dewi Varathan
Sesi Kuliah / *Lecture Session:* Hari/Masa / *Day/Time* Tempat / *Venue*	G1: Tuesday (6pm-8pm); MM3 G2: Saturday (11.30am -1.30pm);MM3
Sesi Tutorial/Amali: *Tutorial/Practical Session:*	

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Hari/Masa / *Day/Time* Tempat / *Venue*	G1: Tuesday (8pm-9pm); MM3 G2: Saturday (1.30pm-2.30pm); MM3
Perincian Pemberatan Penilaian *Detail of Assessment Weightage*	Penilaian Berterusan / *Continuous Assessment* :60% • MCQ Quiz (15%) Week 6 • Projek Proposal Presentation (5%) Week 7 • Assignment (15%) Week 12 • Project Presentation (25%) Week 13, 14 Peperiksaan Akhir / *Final Examination* :40% Alternative Assessment I 20% Alternative Assessment II 20%

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Jadual Pengajaran / *Teaching Schedule*

Minggu *Week*	Topik & Aktiviti *Topic & Activities*	Rujukan *References*
1	Introduction to Data Analytics Activities: Lecture and lab	Analytics in a Big Data World : The Essential Guide to Data Science and Its Applications , Bart Baesens, Wiley 2014
2	CRISP-DM Activities: Lecture and lab	Analytics in a Big Data World : The Essential Guide to Data Science and Its Applications , Bart Baesens, Wiley 2014
3	Data Preprocessing Activities:Lecture and lab	Analytics in a Big Data World : The Essential Guide to Data Science and Its Applications , Bart Baesens, Wiley 2014
4	Data Preprocessing Activities: Lecture and lab	Analytics in a Big Data World : The Essential Guide to Data Science and Its Applications , Bart Baesens, Wiley 2014
5	Data Preprocessing Activities: Lecture and lab	Analytics in a Big Data World : The Essential Guide to Data Science and Its Applications , Bart Baesens, Wiley 2014
6	Introduction to Python Activities: Lecture and lab MCQ Quiz 1 (15%)	McKinney, W. (2012). Python for data analysis: Data wrangling with Pandas, NumPy, and IPython. " O'Reilly Media, Inc.".
7	Project Proposal Presentation (5%) Activities: Seminar	NA.

8	Statistics Activities: Lecture and lab	VanderPlas, J. (2016). Python Data Science Handbook: Essential Tools for Working with Data. *J. VanderPlas.–O'Reilly Media*.
9	DataVisualization Activities: Lecture and lab	VanderPlas, J. (2016). Python Data Science Handbook: Essential Tools for Working with Data. *J. VanderPlas.–O'Reilly Media*.
10	Machine Learning Activities: Lecture and lab	Lander, J.P., R for Everyone: Advanced Analytics and Graphics (Addison-Wesley Data & Analytics Series), Matplotlib
11	Machine Learning Activities: Lecture and lab	Lander, J.P., R for Everyone: Advanced Analytics and Graphics (Addison-Wesley Data & Analytics Series),
12	Machine Learning using SAS Activities: Lecture and lab Assignment (15%)	VanderPlas, J. (2016). Python Data Science Handbook: Essential Tools for Working with Data. *J. VanderPlas.–O'Reilly Media*.
13	Project Presentation Activities: Seminar	NA
14	Project Presentation Activities: Seminar	NA