

Sesi Akademik <i>Academic Session</i>	2024/2025
Semester/Penggal <i>Semester/Term</i>	1
Kod Kursus <i>Course Code</i>	WQD 7005
Tajuk Kursus <i>Course Title</i>	<i>Data Mining</i>
Bahasa Pengantar <i>Medium of Instruction</i>	Bahasa Inggeris <i>English</i>
Rujukan Utama <i>Main Reference</i>	<ol style="list-style-type: none"> 1. Han, J., Kamber, M., & Tong, H. (2022). Data mining: Concepts and techniques (4th ed.). Morgan Kaufmann Publishers.. 2. Leskovec, J., Rajaraman, A., & Ullman, J. (2020). Mining of massive datasets (3rd ed.). Cambridge University Press. 3. Géron, A. (2019). Hands-on machine learning with Scikit-Learn, Keras, and TensorFlow: Concepts, tools, and techniques to build intelligent systems (2nd ed.). O'Reilly Media.
Strategi Pembelajaran <i>Learning Strategies</i>	Kuliah, tutorial dan makmal <i>Lecture, tutorial and lab</i>
Masa Pembelajaran Pelajar <i>Student Learning Time</i>	Bersemuka / <i>Face to face</i> : 26 Tidak Bersemuka / <i>Non Face to face</i> : 28 Masa Persediaan Pelajar / <i>Student Preparation Time</i> : 106
Kemahiran Boleh Pindah <i>Transferable Skills</i>	Problem solving using data mining techniques, result evaluation skills, and analysis/logical skills.
Pensyarah / <i>Lecturer</i> Bilik / <i>Room</i> Telefon/e-mel <i>Telephone/e-mail</i>	Prof Dr Nor Liyana Mohd Shuib (G1) Email: liyanashuib@um.edu.my Room: Block B Prof Dr Teh Ying Wah(G2) Email: tutut@um.edu.my Room: Block A-3-21
Sesi Kuliah / <i>Lecture Session:</i> Hari/Masa / <i>Day/Time</i> Tempat / <i>Venue</i>	G1 Thursday, 18.00 – 20.00, DK1 G2 Saturday, 15.00 – 17.00, DK2
Sesi Tutorial/Amali: <i>Tutorial/Practical Session:</i> Hari/Masa / <i>Day/Time</i> Tempat / <i>Venue</i>	G1 Thursday, 20.00 – 21.00, MM4 G2 Saturday, 17.00 – 18.00, MM3
Perincian Pemberatan Penilaian <i>Detail of Assessment Weightage</i>	Penilaian Berterusan / <i>Continuous Assessment</i> : 50% - Individual Assignment – 15 % (Week 7) - Test – 10% (Week 8) - Group Project – 25% (Week 14) Peperiksaan Akhir / <i>Final Examination</i> : 50% Alternative Assessment - TBC

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Jadual Pengajaran / Teaching Schedule for Group 1 & 2

Minggu Week	Topik & Aktiviti Topic & Activities	Rujukan References
1	<i>Introduction to Data Mining</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
2	<i>Understanding the SEMMA Methodology in Modern Data Mining</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
3	<i>Introduction to Data Warehousing</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
4	<i>Modern Data Warehouse Planning and Design in the Cloud Era</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
5	<i>Modern Data Warehouse Architecture and Infrastructure: Cloud and Hybrid Approaches</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
6	<i>Modern Data Quality Management with Talend Prep & Emerging Technologies - Leveraging AI, Cloud, and Automation for Enhanced Data Quality</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
7	<i>SAS Enterprise Miner: Imputing Missing Values File</i> Lecture / Tutorial Individual Assignment – 15 %	Han, J., Kamber, M., & Tong, H. (2022)
	Mid Semester I Break	
8	<i>Continuous Assessment: Mid Term Test (10%)</i> Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
9	<i>Decision Trees with SAS Enterprise Miner</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)

10	<i>Association Rule</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
11	<i>Sequence Analysis with SAS Enterprise Miner</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
12	<i>Time-series Clustering</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
13	<i>DBSCAN (Density-Based Spatial Clustering of Applications with Noise)</i> Lecture / Tutorial	Han, J., Kamber, M., & Tong, H. (2022)
14	Revision Lecture / Tutorial Group Project – 25% (Week 14)	Han, J., Kamber, M., & Tong, H. (2022)