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| Sesi Akademik  *Academic Session* | 2019/2020 |
| Semester/Penggal  *Semester/Term* | 2 |
| Kod Kursus  *Course Code* | WQD 7005 |
| Tajuk Kursus  *Course Title* | Data Mining |
| Bahasa Pengantar  *Medium of Instruction* | English |
| Rujukan Utama  *Main Reference* | 1. Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. 2. Jure Leskovec, Anand Rajaraman, Jeff Ullman. Mining of Massive Datasets. 2nd Edition. Cambridge University Press. December 2014. 3. Saeed Aghabozorgi and Teh Ying Wah. "Stock Market Co- movement Assessment using a Three-Phase Clustering Method", Expert Systems With Applications, DOI:10.1016/j.eswa.2013.08.028. Volume 41, Issue 4, Part 1, March 2014, Pages 1301-1314. 4. Amineh Amini, Teh Ying wah, Hadi Saboohi. 2014. On Density-based Data Streams Clustering Algorithms: A Survey. Journal of Computer Science and Technology.vol. 29, no. 1, January 2014, pp. 116 141. (ISI-Cited Publication). |
| Strategi Pembelajaran  *Learning Strategies* | Text books, Reference book, Lecture Notes, Tutorials, Labs, Project and WWW  LCD Projector /Computer/Network Equipment |
| Masa Pembelajaran Pelajar  *Student Learning Time* | Bersemuka / *Face to face* : 46  Tidak Bersemuka / *Non Face to face*: 4  Masa Persediaan Pelajar / *Student Preparation Time*: 112 |
| Kemahiran Boleh Pindah  Transferable Skills | Penyelesaian masalah dengan menggunakan kaedah - kaedah perlombongan data, kemahiran mengintepretasi keputusan, dan kemahiran analisis/logikal.  *Problem solving using data mining techniques, result evaluation skills, and analysis/logical skills.* |
| Pensyarah / *Lecturer*  Bilik / *Room*  Telefon/e-mel  *Telephone/e-mail* | Prof. Dr. Teh Ying Wah  A-3-21  79676370/tehyw@um.edu.my |
| Sesi Kuliah / *Lecture Session:*  Hari/Masa / *Day/Time*  Tempat / *Venue* | Jumaat, 6pm-8pm / *Friday, 6pm-8pm*  DK2, Blok B / *DK2, Block B* |
| Sesi Tutorial/Amali:  *Tutorial/Practical Session:*  Hari/Masa / *Day/Time*  Tempat / *Venue* | Khamis, 8pm-9pm / *Thursday, 8pm-9pm*  MM4, Blok B / *MM4, Block B* |
| Perincian Pemberatan Penilaian  *Detail of Assessment Weightage* | Penilaian Berterusan / *Continuous Assessment* : 50%  Peperiksaan Akhir / *Final Examination* : 50% |

**Jadual Pengajaran / *Teaching Schedule***

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| Minggu  *Week* | Topik & Aktiviti  *Topic & Activities* | Rujukan  *References* |
| 1 | Introduction I | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter I |
| 2 | Introduction II  Tutorial 1 (Test 1 for sql statements ) | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter I |
| 3 | Data Warehouses I  Lab 1 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 4 |
| 4 | Data Warehouses II  Tutorial 2 (Test 2 for Pythons statements )  Programming for Data Science  Lab 2 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 4. |
| 5 | Pre-mining I  Tutorial 3 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 3 |
| 6 | Pre-mining II  Lab 3 (Test 3 for moving unstructured data and strucutured into Hive Data warehouse or Data Live | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 3 |
| 7 | Pre-Mining III  Lab 4 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 3. |
| 8 | Mid Term Test  Tutorial 4 | - |
| 9 | Classification  Lab 5 / Tutorial 5 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 8. |
| 10 | Association Rule I  Tutorial 6  Lab 6 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 6. |
| 11 | Association Rule II  Lab 7 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 6. |
| 12 | Clustering I  Tutorial 7  Lab 8 | Jiawei Han, Micheline Kamber, Data Mining Concepts and Techniques, 3rd Edition. Morgan Kaufmann Publishers, 2011. Chapter 10. |
| 13 | Clustering II  Lab 9  Presentation and Report Submission. | Saeed Aghabozorgi and Teh Ying Wah. "Stock Market Co- movement Assessment using a Three-Phase Clustering Method", Expert Systems With Applications, DOI:10.1016/j.eswa.2013.08.028. Volume 41, Issue 4, Part 1, March 2014, Pages 1301-1314. |
| 14 | Tutorial 8  Lab 10 |  |