COMP8410 Data Mining Course Schedule, Semester 1 2018

1. Monday lab classes are studying the same lab material as other classes in the week but will be taking the lab (and the lab quiz) before the relevant weekly lecture. Students in Monday labs will need to come to classes on Monday having already completed the on-line study material for the same week.

2. Week 6 Friday holiday: Week 6 Friday labs will be held on Friday in Week 5. Students will need to come to classes on Friday having already completed the on-line course material for week 6.

3. **Week 4 Monday** holiday: Week 4 Monday labs will be held on Monday in Week 5.

4. Lectures on Tuesdays are **scheduled for 2 hours.** On many occasions, as indicated here, in the "F2F" column, only 1 hour will be needed. In such cases only the first hour will be used. However, you **must be prepared to attend 2 hour lectures every week** as sometimes the extra hour may also be required even when not indicated here.

5. Likewise, laboratories are scheduled for 2 hours every week except week 1 and week 5. Some labs may be only 1 hour long as indicated here. Due to adjustments for public holidays and potentially extra lab work, you **must be prepared to attend 2 hour laboratories every week.**

Week	Topic	Subtopics	F2F *hours	Exercises	Assessment	LO
1 19/2	Introduction to Data Mining	Course overview What is data mining? Data Mining and KDD process Data mining tools Introduction to Rattle Privacy	Lec *2 No lab	Quiz	Ass 1 distributed Monday	1, 7
2 26/2	Foundation Concepts	Data types and representations Basic Stats Similarity Interestingness Rationale Basic Concepts	Lec *1 Lab *1	Lab: Install Rattle and get to know it. Lab: DW install. Quiz		2,5
3 5/3	Intro to Data Warehousing; Analysing Data in Warehouses	Data Cube modelling Concept hierarchies OLAP Processing queries	Lec *1 Lab *2	Lab: introduction to data warehousing; Lab: analysing data in warehouses Quiz		3,6
4 12/3	Association Mining Holiday Monday	Frequent Patterns Associations Correlations	Lec * 1 Lab *2	Lab: association mining Lab: more association mining Quiz	Ass 1 due Friday	3-6
5 19/3		Review Week 6 lab for Friday classes. Week 4 lab for Monday classes. No other week 5 labs.	Lec * 1		Lab exam 2 hours	

					Thurs 6:30 pm or 7:30 pm TBA	
6 26/3	Classification and Prediction Holiday Friday Census: 31/3	Introduction, Decision Trees, Rules, Bayes Accuracy & Evaluation	Lec *1 Lab *2	Lab: decision trees Lab: evaluation Quiz	Ass2 distributed Monday	3-5
Break 2/4	Holiday Monday					
Break 9/4						
7 16/4	Classification and prediction	Regression Neural nets SVM Lazy Learners	Lec *1 Lab *2	Lab: nn & Regression Lab: svm Quiz		3-5
8 23/4	Cluster Analysis Holiday Wednesday	Introduction Partitioning Methods Hierarchical Methods Density-based Methods Evaluation	Lec *1 Lab *1	Lab: Kmeans&hierarchy Lab: Dbscan &kmeans Quiz		3-6
9 30/4	Outlier Detection	Statistical Approaches Proximity-Based Clustering-based Classification-based Contextual and Collective	Lec *1 Lab *1	Lab: finding outliers with R Quiz		3-6
10 7/5	GL: Cecile Paris Text and Web Mining	Text analysis & info retrieval Text mining problems Understanding and the Brain	Lec*1 Lab*2	Lab: text&web mining Quiz		3-6
11 14/5	Semantic Web	Principles RDF Web Ontology Language Mining	Lec*2 Lab*2	Lab: linked data Lab: owl-miner Quiz	Ass2 due Friday	4-6
12 21/5	Frontiers	Ensemble: Bagging, boosting & random forest Stream mining Time series	Lec*2 Lab *1	Lab: random forest & adaboost Quiz		6
Pre Exam	Review	Review material online	No lectures or labs	Quiz	Final Exam in exam period	1-7