

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI

WORK INTEGRATED LEARNING PROGRAMMES

Academic Term	SECOND SEMESTER 2014-2015
Course Title	DATA MINING
Course ID No.	IS ZC415
Instructor(s)	NAVNEET GOYAL

Syllabus for EC2 -

- Modules marked in **Green** are there for EC2
- Modules marked in **Red** are not there for EC2
- Sub-modules marked in **Red** are not there

Module Title: Data Mining overview & preliminaries

Session 1

Topic No.	Topic Title	Reference
1.1	Data Mining overview & introduction	Ch. 1 Ch. 1 - R1 & R2
1.2	Major Data Mining Tasks	Class notes
1.3	Some interesting case studies	Class notes
1.4	Mathematical Preliminaries	Appendices A-E

Module Title: Data Preprocessing

Session 2

Topic No.	Topic Title	Reference
2.1	Types of data	2.1
2.2	Data Quality	2.2
2.3	Data preprocessing	2.3
2.4	Similarity and Dissimilarity Measures	2.4

Module Title: Classification

Session 3

Topic No.	Topic Title	Reference
3.1	Introduction to supervised learning and classification	4.1-4.2
3.2	Decision Tree Algorithms	4.3
3.3	Nearest-neighbor Classification	5.2
3.4	Bayesian Classification	5.3
3.5	Rule-based Classification	5.1
3.6	Support Vector Machines	5.5
3.7	Ensemble Classification	5.6
3.8	Classifier Accuracy & Model Comparison	4.5-4.6
3.9	Class Imbalance & Multiclass Problem	5.7-5.8