

İçerik

Ders Kodu	Dersin Adı	Yarıyıl	Teori	Uygulama	Lab	Kredisi	AKTS
INF 511	Veri Ambarları ve Veri Madenciliği	1	3	0	0	3	6

Ön Koşul	
Derse Kabul Koşulları	

Dersin Dili	İngilizce
Türü	Seçmeli
Dersin Düzeyi	Yüksek Lisans
Dersin Amacı	This class aims at introducing the data mining process to students. This includes the description of data preparation and preprocessing, of various data mining algorithms and of the tools available to assess their results. The class focuses on standard approaches regarding association rules mining, supervised classification and unsupervised classification (clustering). Basic statistical knowledge is necessary to understand the mining algorithms and the quality assessment tools.
İçerik	association rules - data pre-processing - supervised classification - clustering - complex data mining - results validation and quality assessment
Kaynaklar	<ul style="list-style-type: none">• Data Mining - Practical Machine Learning Tools, 2nd edition, Ian H. Witten & Eibe Frank, Morgan Kaufmann, 2005.• Neural Networks - A Comprehensive Foundation, 2nd edition, Simon Haykin, Pearson/Prentice Hall, 1999.• Data Mining: Concepts and Techniques, Jiawei Han & Micheline Kamber, Morgan Kaufmann, 2000.• Applied Statistics and Probabilities for Engineers, 4th edition, D.C. Montgomery & G.C. Runger, John Wiley & sons, 2006.• The Elements of Statistical Learning: Data Mining, Inference, and Prediction, 2nd edition, T. Hastie, R. Tibshirani & J. Friedman, Springer, 2009.

Teori Konu Başlıkları

Hafta	Konu Başlıkları
1	Introduction, overview
2	Descriptive Statistics
3	Inferential Statistics and its preprocessing tools
4	Data Preprocessing
5	Classification1
6	Classification2
7	Classification3
8	Project & Exam 1
9	Clustering1
10	Clustering2
11	Clustering3
12	Association Rule Mining (Apriori and FP-Tree Algorithms)
13	Neural Networks
14	Project & Exam 2