Course Syllabus

Code - Course Title	**VBA307 - Natural Language Processing and Text Analytics**
Course Type	V. SEMESTER
Laboratory + Practice	3+0
ECTS	**5.0**
Language of Instruction	İngilizce
Course Type	Required Courses
Course Instructor(s)	DR. ÖĞR. ÜYESİ ÖNDER DORAK

Mode of Delivery	Face to face

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Text Preprocessing: Normalization and tokenization	
Week - 2		Stemming and lemmatization techniques	
Week - 3		Stop word removal and regular expressions	
Week - 4		Text Representation: Bag-of-words models	
Week - 5		Calculating TF-IDF matrices	
Week - 6		Training word embeddings (Word2Vec, GloVe)	
Week - 7		N-gram modeling structures	
Week - 8		NLP Applications: Building sentiment analysis classifiers	
Week - 9		Conducting topic modeling (LDA)	
Week - 10		Implementing named entity recognition (NER)	
Week - 11		Text summarization approaches	
Week - 12		Advanced NLP Concepts: Sequence modeling for text	
Week - 13		Evaluating NLP model performance	
Week - 14		Handling multi-lingual text data	

Learning Outcomes

#	Learning Outcome
1	Execute advanced text normalization and tokenization
2	Calculate TF-IDF matrices and word embeddings

Learning Outcomes

#	Learning Outcome
3	Build accurate text sentiment analysis classifiers
4	Implement topic modeling via Latent Dirichlet Allocation

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.