

DATA SCIENCES AND OPERATIONS

SPRING 2024

DSO 560 — Section — 16297D

Text Analytics and Natural Language Processing

Professor

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Email

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When

Tues and Thurs 12:30 PM – 1:50 PM

Office

BRI 400 C

Units

1.5



WHY TAKE THIS COURSE?

Want to learn about the algorithms and techniques to analyze text using Natural Language Processing? Delve into the parallels between the brain's neurolinguistic functions and the cutting-edge technologies in the NLP domain. If you want to gain an edge in data-driven decision making, this course will not only sharpen your analytical skills but will also provide a fresh perspective on the confluence of human cognition and machine learning.

COURSE OBJECTIVES

- Describe how NLP is used to solve business problems
- Write functional code
- Extract themes from documents using several different approaches
- Extract insights from NLP output

KEY CONCEPTS

- Python Proficiency for Text Analysis
- Sentence and Word Tokenization
- Lemmatization
- Sentiment Analysis
- Semantic Analyses
- Deep Learning

COURSE DESCRIPTION

Develop the technical skills for natural language processing and text analysis. Within the industry there is often a divide between the teams generating the insights and those who are making the final management decisions. This course serves to help students bridge the gap between management and business analytics each week contains self-contained business use case modules that will introduce students to the full insight pipeline- from data text mining, data preprocessing, sentiment analysis, semantic analysis, deep learning and progression into large language models.