

COMPUTER ENGINEERING (CPEG)

CPEG 4405. Machine Learning (3)

This course introduces the principles, algorithms, and applications of machine learning. Students are exposed to machine learning through a blend of mathematical and statistical descriptions, hands-on programming exercises, and real-world engineering problems. Topics include, but are not limited to optimization, linear statistical models, kernel regression, neural networks, support vector machines, computer vision, and NLP.

Prerequisites: CSCI 3305

CPEG 4410. Natural Language Processing (3)

This course is an introduction to the theory and methodology of natural language understanding and generation. Topics covered are large language models, tokenization, stop word removal, stemming, lemmatization, parts of speech tagging, syntax, semantics, discourse, and their applications in various natural language processing (NLP) tasks. Students utilize specialized libraries to develop applications for these NLP tasks.

Prerequisites: CSCI 3305 (may be taken concurrently)