COURSE DETAIL

ACCELERATED NATURAL LANGUAGE PROCESSING
Country United Kingdom - Scotland
Host Institution University of Edinburgh
Program(s) Scottish Universities,University of Edinburgh
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 111
UCEAP Course Suffix
UCEAP Official Title ACCELERATED NATURAL LANGUAGE PROCESSING
UCEAP Transcript Title NATURAL LANG PROCES
UCEAP Quarter Units 8.00
UCEAP Semester Units 5.30

Course Description
The course synthesizes ideas from linguistics and computer science to provide students with a fast-paced introduction to the field of natural language processing. The course covers the most widely-used theoretical and computational models of language, including both statistical and non-statistical approaches. The course familiarizes students with a wide range of linguistic phenomena with the aim of appreciating the complexity, but also the systematic behavior of natural languages like English, the pervasiveness of ambiguity, and how this presents challenges in natural language processing. In addition, the course introduces the most important algorithms and data structures that are commonly used to solve many NLP problems. The course covers formal models for representing and analyzing the syntax and semantics of words, sentences, and discourse. Students learn how to analyze sentences algorithmically, using hand-crafted and automatically induced treebank grammars, and how to build interpretative semantic representations. The course also covers a number of standard models and algorithms that are used throughout language processing. Examples include n-gram and Hidden Markov Models, the EM algorithm, and dynamic programming algorithms such as chart parsing.

Language(s) of Instruction
English

Host Institution Course Number
INFR11125

Host Institution Course Title
ACCELERATED NATURAL LANGUAGE PROCESSING

Host Institution Campus
Edinburgh

Host Institution Faculty

Host Institution Degree

Host Institution Department
Informatics

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