Department: Mathematics and Computer Sciences **Division:** Computer Sciences **Level and Major:** Graduate

Course Title: Natural Language Processing **Number of Credits:** 3 **Prerequisite: Lecturer:**

Course Description:

Course Goals and Objectives:

Course Topics:

- Introduction and NLP applications
- Language Modelling N-Grams
- Classification and Sentiment Analysis
- Logistic Regression
- Vector Semantics
- Neural Network and Neural Language Model
- Recurrent Networks
- Introduction to Programming using Pytorch, etc.
- Part-of-Speech Tagging and HMM
- Formal Grammars of English
- Syntactic Parsing
- Information retrieval
- Question Answering
- Intro to MT, Neural MT
- Project Discussion
- Emerging Topics in NLP

Reading Resources:

Evaluation: