# CSC3160: Learning progression

### Basics of language

- Regular expression and text processing
- Morphology and parts-of-speech
- -Syntax in a nutshell

Lecture 6-8, assignment 2

#### Applications

- Sentiment analysis
- Speech recognition and synthesis
- Machine translation
- Question answering and Chatbot

**Lecture 13-24** 

## Basics of speech processing

- Read and analyze spectrogram
- Use tools to extract spectrogram
- Basic phonetics knowledge
- -PyTorch/TorchAudio

Lecture 1-5, assignment 1

## Language models and embedding

- N-gram language models
- Neural language models
- Word embedding, word2vec, etc

Lecture 9-12, assignment 3

#### Project

- Skills to build a SLP system
- How to write a technical report
- Skills to present your project to professional experts

**Final project**