

# Computer Speech Processing

**Prerequisite:** Phonetics

**Credit Hours:** (3)

Speech processing is a diverse subject that relies on phonetics, phonology, linguistics, signal processing and computational models. The course includes statistical methods and mathematical foundations in pattern recognition for signal and speech processing and discusses speech production models and covers various methods in speech representation and feature extraction. Speech technologies including speech synthesis, speech enhancement, speech recognition and coding as well as speaker identification techniques will be discussed with an overview to their mathematical foundations.