**Course title:** Language Technologies /Езикови технологии

**Tutor:** Assist. Prof. Rositsa Dekova, PhD

**Mode of delivery:** Face-to-face lectures or seminars, discussions, e-course, tutoring, independent work, guided reading

**Course place and status within the program**

This is a core course for students in Linguistics and IT and an elective for students in English Studies, Applied Linguistics, Linguistics and Marketing and Linguistics and Business Administration. The course contact hours and credit workload varies according to different degrees.

For students in Linguistics and IT: The course comprises 30 academic hours of lectures during the Spring Term (Second term) of the academic year for first year students and awards 3 credits.

For students in English Studies, Applied Linguistics (English and another language): The course comprises 30 academic hours of seminars during the Spring Term (Second term) of the academic year and awards 3 credits.

For students in Linguistics and Marketing and Linguistics and Business Administration: The course comprises 15 academic hours of lectures during the Spring Term (Second term) of the academic year and awards 2 credits.

**Competence expectations**

Students taking this course are expected to
a) have an advanced to proficiency level of English;
b) be interested in contemporary language technologies.
A useful background to the course is a previous course in Computational Linguistics.

**Aims and objectives of the course**

This course provides students with an introduction to key concepts in language technologies – historical background, state of the art approaches and future tasks.

By the end of the course, students will have:
- acquired a repertoire of relevant terms in the field of language technologies
- become familiar with some of the most important and influential concepts in the field
- acquired a sense of the development of various language technologies and their use
- acquired the basic knowledge to develop and apply their competences in future research in the field

**Weekly organization of topics & reading assignments**

Topics:
1 Spoken Language Input
   1.1 Speech Recognition
   1.2 Signal Representation
   1.3 Language Representation
   1.4 Speaker Recognition
   1.5 Spoken Language Understanding
2 Written Language Input
   2.1 Document Image Analysis
   2.2 OCR: Print and Handwriting
3 Language Analysis and Understanding
4 Language Generation
5 Spoken Output Technologies
   5.1 Text Interpretation for TTS Synthesis
   5.2 Spoken Language Generation
6 Discourse and Dialogue Modeling
7 Document Processing
   7.1 Document Retrieval
   7.2 Text Interpretation: Extracting Information
   7.3 Summarization
   7.4 Computer Assistance in Text Creation and Editing
8 Multilinguality
   8.1 Machine Translation
   8.2 (Human-Aided) Machine Translation
   8.3 Machine-aided Human Translation
   8.4 Multilingual Information Retrieval
   8.5 Multilingual Speech Processing
9 Multimodality

Note: Lists of topics and readings may vary for different majors, according to IT competence and credit weight.

Course requirements
To successfully complete the course, students should:
   a) attend lectures and participate in discussions regularly;
   b) register and participate actively in the online course – take the electronic quizzes;
   c) prepare and give a presentation (15-20 slides) on an assigned topic;
   d) sit for an exam.

Mode of assessment
Active participation in seminar discussions – 20%
Quizzes in the e-course – 30%
Oral presentation on a given topic – 30%
Exam – 20% (the first three may lead to exam exemption)

Bibliography