

**11-823, 423, 623: ConLanging: Learning about linguistics and language technologies through construction of artificial languages**

**Instructors:** Lori Levin and Alan W Black

**Proposed semester:** Spring 2016

**12 units**

**Class schedule:** MW 3:00-4:20

**Course website:** <http://tts.speech.cs.cmu.edu/11-823/>

**Course Description:**

Students will work individually or in small groups to create artificial human(oid) languages for fictional human cultures or SciFi worlds. Students will implement language technologies for their languages, and will use language documentation tools to create their languages. In the course of creating the languages, students will learn about the building blocks of human language such as phones, phonemes, morphemes, and morpho-syntactic constructions including their semantics and pragmatics.

Class instruction will focus specifically on variation among human languages so that the students can make conlangs that are not naively English-like. We may also touch on philosophical issues in philosophy of language and on real-world socio-political issues related to language policy.

Students will be required to use at least one of the following technologies:

**Learning Objectives:**

1. The building blocks (phonemes, morphemes, etc.) of language, how languages are built from them, and how they interact
2. Metalinguistic awareness and knowledge about variation in human language
3. Language, thought, and culture: how does language reflect thought and culture, and vice versa. Why wouldn't Elvish be a good language for Klingons?
4. Language policy in the real world: For students who want to manipulate real languages.
5. Language change: for students who want to manipulate real languages or make families of related conlangs for fictional worlds.
6. Practical experience with a language technology and language documentation tools.

**Grading:**

*Weekly progress assignments:* Each progress assignment will be in an interlinear gloss format and will cover a component of language such as the phonemic inventory, basic transitive and intransitive sentences (decisions about word order, case marking, and agreement), and other sentence types and linguistic phenomena as indicated in the syllabus.

*Presentations on Conlangs and Tools:* Each student will give one or two ten-minute presentations to the class on existing conlangs or tools for conlanging.

*Milestone projects:*

- Build a speech synthesizer:
  - Requires phoneme definition and design of sufficient vocabulary to build a general synthesizer
- Build a morphological analyzer:
  - Requires alphabet, word structure, grammatical classes
  - Concatenation of allomorphs; morpho-phonological transduction not required
- Chat bot/Eliza like system
  - How to do communication in the language
- Narrative or poem (may be performed in class)
- Movie scene: train other people to pronounce your conlang (performed in class)

*Final glossed corpus, texts, lexicons, and grammar sketch:* Submit your text artifacts along with a written grammar sketch describing the phonology, morphology, syntax, and discourse conventions of your language.

### **Reading:**

Books by Mark Rosenfelder (zompist.com)

- *The language construction kit*
- *Advanced language construction*
- *The conlanger's lexipedia*

Other readings may be assigned (mostly overviews of linguistic phenomena).

### **Course Outline (roughly by week):**

- 1. Introduction to Constructed Languages, and overviews of existing Conlangs**
- 2. Phonetics and Phonology**
- 3. Prosody and Stress**
- 4. Numbers, calendars, clocks (time)**

**Milestone mini-project:** Build a talking clock synthesizer in your Conlang

- 5. Lexicon**
  - Derivational morphology and compounding**
  - Etymology and historical depth**

- 6. Sentence-level syntax**

**Milestone mini-project:** Build a morphological analyzer in your Conlang.

- 7. Sentence-level constructions (syntax, semantics, pragmatics)**
- 8. Sentence level constructions continued**
- 9. Noun-Phrase syntax and constructions (syntax, semantics)**
- 10. Discourse structure**

**Milestone mini-project:** Build a chatbot in your Conlang

- 11. Field Linguistics and language documentation checklists**
- 12. Writing systems and orality**
- Final Project Presentation**