

# COMPUTATIONAL LINGUISTICS, MA

---

Computational Linguistics is a field that appeals to students with a zeal for both linguistics and computer science and a passion for developing ideas at the intersection of these fields. The program relies on the resources of the linguistics program and the department of computer science. Students studying computational linguistics will focus on the scientific study of language from a computational perspective, in which opportunities abound in many growing fields in today's job market, such as:

- Automated text analysis
- Speech recognition
- Information retrieval
- Web search
- Machine translation
- "Big Data"
- Cryptography
- Computer security

The program admits a small-sized class size of three to five, composed of (i) Tulane undergraduate students with a background in either linguistics, computer science or the study of language who are admitted into the 4+1 program, and (ii) external outstanding students, preferably with an undergraduate degree in linguistics, computer science or the study of a language.

## Requirements

Students will complete a core curriculum, several electives and an internship in a calendar year (two semesters plus summer).

### MA Computational Linguistics Courses:

Course ID	Title	Credits
ANTH 7340	Dialectology	3
ANTH 7590	Syntactic Theory	3
ANTH 7630	Linguistic Phonetics	3
ANTH 7640	Phonology	3
ANTH 7650	Morphology	3
ANTH 7660	Discourse Analysis	3
ANTH 7670	Language & Acquisition	3
ANTH 7680	Language and Power	3
ANTH 7690	Language and Gender	3
CMPS 3140/6140	Intro Artificial Intelligence	3
CMPS 3240/6240	Intro to Machine Learning	3
CMPS 3250	Theory of Computation	3
CMPS 3280/6280	Information Theory	3
CMPS 4250/6250	Math Found Comp Security	3
LING 7010	Semantics	3

In order to satisfy the 30 credit requirement for the MA, students will select 10 out of these courses. Five courses must be taken in linguistics and five in computer science. The following are required courses:

- ANTH 7630 Linguistic Phonetics
- ANTH 7590 Syntax
- LING 6810 Special Topics (Natural Language Processing)
- CMPS 3140/6140 – Introduction to Artificial Intelligence
- CMPS 3240/6240 – Introduction to Machine Learning
- CMPS/MATH 3250 – Introduction to the Theory of Computation
- CMPS 3280/6280 – Information Theory

All other courses are electives.

**Notes:**

- CMPS 2170 Intro to Discrete Math (3 c.h.) or CMPS 2170 Intro to Discrete Math (3 c.h.) must be taken during students' undergraduate training for it is a prerequisite for some CMPS graduate courses.
- Additional linguistic electives at the graduate level are available in the following cooperating departments: French, Spanish, Philosophy, Neuroscience, and Psychology.

**Non-course requirement of the curriculum**

There will be a (6-8 week) summer internship requirement for obtaining practical experience on key applications in human language technology. Local internship opportunities are available through TurboSquid, a web-based technology company in New Orleans. A written report summarizing the internship experience is required after the internship.