

## Computational Linguistics Certificate

*Effective Fall 2020*

This undergraduate certificate is designed to help students acquire the knowledge and skills necessary to pursue a career path in an area of technology known alternatively as Computational Linguistics and Natural Language Processing (NLP). This is the science behind machine translation, text-to-speech, speech recognition, and many other important applications.

### Required Courses 9 courses (27 credit hours):

1. LING 1200: Intro to the Study of Language -OR- LING 1069: Bad Words and Taboo Terms
2. CS 1410: Intro to Object-Oriented Programming<sup>1</sup>
3. CS 2420: Intro to Algorithms & Data Structures
4. CS 3100: Models of Computation<sup>2</sup>
5. CS 3500: Software Practice
6. LING 4010: Intro to Phonetics and Phonology -OR- LING 4020: Intro to Syntax -OR- LING 5030: Semantics -OR- LING 5190: Psycholinguistics
7. LING 3300: Computers and Language -OR- CS 3505: Software Practice II
8. CS 5340: Natural Language Processing
9. LING 5300: Computational Linguistics

### For advising, please contact:

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<sup>1</sup> CS 1410 has the following chain of prerequisites, some of which may be waived by passing a screening test: MATH 1050 College Algebra, MATH 1060 Trigonometry, CS 1030 Foundations of Computer Science, and CS 1210 Calculus 1.

<sup>2</sup> CS 3100 has a prerequisite of CS 2100 Discrete Structures, which may be waived by demonstrating knowledge of finite-state machines.