CSC 485: Introduction to Computational Linguistics
Course Information

**Instructor:** Gerald Penn
**Lectures:** TR 1–3 Zoom
**Office:** CSC485 Discord server
**Tel:** (416)978-7390
**Office Hours:** immediately following WF tutorials 2–3, or by appointment
**Email:** gpenn@teach.cs.utoronto.ca

**Tutorials:** WF 1–2, Zoom
(Note: many tutorial days will be used for lectures)

**Teaching Assistants:**
Name          Assignment
Aditya Bhargava  1
Frank Niu  2

**Textbooks:**
- **Required**
- **Required**
- **Recommended**
- **Optional**
- **Recommended**

**Course Web Page:** http://www.cs.toronto.edu/~gpenn/csc485/

**Evaluation:** There will be two homework assignments worth 45% of your course grade each, and a final assessment essay worth 10%.

- *No late homeworks will be accepted, except in case of documented medical or other emergencies.*

**Policy on collaboration:** No collaboration on homeworks or essays is permitted. The work you submit must be your own. Failure to observe this policy is an academic offense, carrying a penalty ranging from a zero on the homework to suspension from the university.

**Course Goals:** This course is an introduction to a statistical and computational characterization of natural language. You will also have the chance to practice programming in Python.
**Prerequisites:** STA247H1/STA255H1/STA257H1 and CSC209H1, but CSC324H1/CSC330H1/CSC384H1 is strongly recommended. Engineering students may substitute APS105H1/APS106H1/ESC180H1/CSC180H1 for the CSC 209 requirement, although experience with the Unix operating system is strongly recommended, and/or ECE302H1/STA286H1/CHE223H1/CME263H1/MIE231H1/MIE236H1/MSE238H1/ECE286H1 for the statistics requirement. Note that the University’s automatic registration system does not check for prerequisites: even if you have registered for the course, you will not receive credit for it unless you had satisfied the prerequisite before you registered. For advice, contact the Undergraduate Office on the fourth floor of the Bahen Centre or the instructor.

**Newsgroup:** The course newsgroup is on the web at https://bb-2020-05.teach.cs.toronto.edu/c/csc485. Your teaching assistants will be monitoring it.

**Tentative Syllabus:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Advance reading*</th>
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<tbody>
<tr>
<td>5–6 May</td>
<td>Intro to CL</td>
<td>J&amp;M: 1; BK&amp;L: 1, 2.3, 4 as necessary</td>
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<tr>
<td>7 May</td>
<td>Intro to NLTK and PyTorch</td>
<td>BK&amp;L: 1, 2.3, 4 as necessary</td>
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<td>8–12 May</td>
<td>Grammars and parsing</td>
<td>J&amp;M: 5.0–1, 12.0–12.3.3, 12.3.7, 13.1–2; BK&amp;L: 8.0–8.4</td>
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<tr>
<td>13–14 May</td>
<td>Chart parsing</td>
<td>J&amp;M: 13.3–4; A: 3.4, 3.6; BK&amp;L: 8.4 and online extras section 8.2 on chart parsing</td>
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<tr>
<td>15–19 May</td>
<td>Even More Parsing</td>
<td>J&amp;M: 12.3.4–6, 15.0–3; A: 4.1–5; BK&amp;L: 9</td>
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<td>20–21 May</td>
<td>Ambiguity resolution</td>
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<td>22 May</td>
<td>Catch-up class if needed</td>
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<td>26–27 May</td>
<td>Attachment models</td>
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<td>28–29 May</td>
<td>Lexical semantics</td>
<td>J&amp;M: 19.1–4, 20.8</td>
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<td>2 June</td>
<td>Word sense disambiguation</td>
<td>J&amp;M: 20.1–5</td>
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<td>3–4 June</td>
<td>Statistical parsing</td>
<td>J&amp;M: 5.2–5.5.2, 5.6, 12.4, 14.0–1, 14.3–7</td>
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<tr>
<td>5–9 June</td>
<td>Anaphora resolution</td>
<td>21.0, 21.2–8</td>
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<td>10–11 June</td>
<td>Semantic representations</td>
<td>J&amp;M: 17.0–17.4.1, 17.5; BK&amp;L: 10.0–4</td>
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<tr>
<td>12 June</td>
<td>Tutorial will meet as usual</td>
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*J&M = Jurafsky and Martin; BK&L = Bird, Klein, and Loper; A = Allen; italics indicate optional additional reading.

**Course Calendar:**

- **Tue, 5 May**  First lecture
- **Sun, 10 May** Last day to add course
- **Mon, 18 May** Victoria Day
- **Fri, 22 May** Assignment 1 due
- **Mon, 1 June** Last day to drop course
- **Fri, 12 June** Last meeting
- **Mon, 15 June** Assignment 2 due
- **Thu, 25 June** Final assessment essay due