

## Content of CpSc3500

Based on Text: Introducing the Theory of Computation  
Goddard

- ***Regular languages.*** Chapters 1–4
- ***Context-free languages.*** Chapters 6–9 except omitting
  - proof that PDAs and CFGs are equivalent
  - how to convert to Chomsky Normal Form
- ***Turing Machines and recursive/r.e. languages.*** Chapters 11–13
- ***Undecidability.*** Chapters 14–15 except omitting
  - proof that Totality for context-free is undecidable
  - Post's correspondence problem
- ***P and NP.*** overview of Chapters 17 and 19