CAS 706: Programming Languages

Outline:

- Programming language paradigms
  - o   Structuring methodology
  - o   Idioms
- Semantics
  - o   Lambda Calculus as unifying paradigm
  - o   Operational semantics
  - o   Denotational semantics
  - o   Axiomatic semantics Principles, use, and limitations of Hoare logic

    concentrating on functional and imperative languages

- Programming language design goals and description tools
  - o   Syntax description beyond context-free grammars
  - o   Typing systems

  Additional topics as time permits.