

# **Principles of Programming Languages**

**CMSC 331  
Spring 2014**

# Overview

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# Details

- Charles Nicholas
  - [nicholas@umbc.edu](mailto:nicholas@umbc.edu)
  - <http://www.cs.umbc.edu/~nicholas/>
  - ITE 356
  - Office Hours MW 2:30 – 3:30 PM
- TA: TBD (but see the web site)

# Goals

- Cover basic concepts underlying programming languages (paradigms, syntax, semantics, etc.)
- Study examples of functional programming languages (e.g. Lisp and Haskell)
- Study examples of scripting languages (e.g. Perl and Python)
- Touch on other concepts and languages, such as C++

# Approach

- Text has good coverage of the basics
- Augmented with material from Web
- Learn by doing: written homework and programming assignments
- It would be instructive to create a virtual machine for this class, with all kinds of languages, but
- Programming assignments must work on gl

# Expectations

- Do the assignments on your own
- Hand them in on time
  - Although it's better to hand in late than not at all
- Ask questions
  - And/or share thoughts
- Don't be afraid to seek help
- Take pride in your work, including your code

# Infrastructure

- Website for schedule, notes, etc.
  - <http://cs.umbc.edu/courses/331/spring14/01>
- If you use your own computer you'll eventually want to download and install: PLC Scheme, Python, Perl, Haskell, Emacs, and maybe other tools.

# Need Help?

- We are here to help you learn
- Recommended procedure
  - Think
  - Check book, reading, notes
  - Ask Google or Bing
  - Ask the TA (email, office hours)
  - Ask the instructor (email, office hours)



# Academic Integrity

All members of the UMBC community are expected to make a commitment to academic honesty in their own actions and with others. Academic misconduct could result in disciplinary action that may include suspension or dismissal. Here are examples of academic misconduct that are not tolerated at UMBC.

- Cheating:** Knowingly using or attempting to use unauthorized material, information, or study aids in any academic exercise
- Fabrication:** Intentional and unauthorized falsification or invention of any information or citation in an academic exercise
- Facilitating Academic Dishonesty:** Intentionally or knowingly helping or attempting to help another commit an act of academic dishonesty
- Plagiarism:** Knowingly representing the words or ideas of another as one's own in any academic exercise, including works of art and computer-generated information/images

# Questions

- These are some questions for us to think about throughout the course
- At best they have subjective answers

# Questions

- How important is programming to CS?
- How important is the choice of language to a programming task?
- What's the best PL? How many should I know?
- Why are new PLs constantly being invented? Why should I learn any of them?
- How will evolving computing hardware (cloud computing, quantum computers) change PLs?
- How long does it take to master a PL?
- What PLs should I know to get the best jobs?