CSC326: Programming Languages

Jianwen Zhu

September 30, 2016

Course Objective

General introduction of modern programming languages and paradigms, including imperative programming, object-oriented programming, aspect-oriented programming, functional programming, and concurrent programming. The course will be supplemented by hands-on practice of web programming utilizing a multitude of programming paradigms with the syntactical versatility of Python.

Course Info

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<tr>
<th>Instructor</th>
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<tr>
<td>Lecture</td>
<td>Tue 2-3 RS211</td>
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<td>Thu 1-2 RS211</td>
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<td>Fri 10-11 RS211</td>
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<td>Lab</td>
<td>PRA0101: Tue 3-6 GB 243</td>
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<td>PRA0102: Tue 3-6 GB 243</td>
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<td>Tutorial</td>
<td>TUT0101: Thu 11-12 BA2145</td>
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<td>TUT0102: Thu 11-12 BA2155</td>
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Online Resources

Web Site http://www.eecg.toronto.edu/~jzhu/csc326/csc326.html

Due Dates
Midnight, Oct 16  Assignment 1
Midnight, Nov 20  Assignment 2
Midnight, Oct 09  Lab 1
Midnight, Oct 23  Lab 2
Midnight, Nov 13  Lab 3
Midnight, Dec 04  Lab 4

Tutorial Contents
In tutorials, practice problems will be reviewed and help with projects will be provided.

TUT1  HTML and CSS tutorial
TUT2  Web Framework tutorial
TUT3  Assignment 1 review
TUT4  Midterm solution review
TUT5  Assignment 2 review

Tutorial Schedules
TUT1  TUT0101: Sep 29 11-12; TUT0102: Oct 06 11-12
TUT2  TUT0101: Oct 13 11-12; TUT0102: Oct 20 11-12
TUT3  TUT0101: Oct 27 11-12; TUT0102: Nov 03 11-12
TUT4  TUT0101: Nov 10 11-12; TUT0102: Nov 17 11-12
TUT5  TUT0101: Nov 24 11-12; TUT0102: Dec 01 11-12

Lab Schedules
Lab1  PRA0101: Sep 27 3-6; PRA0102: Oct 04 3-6
Lab2  PRA0101: Oct 11 3-6; PRA0102: Oct 18 3-6
Lab3  PRA0101: Nov 08 3-6; PRA0102: Nov 01 3-6
Lab4  PRA0101: Nov 22 3-6; PRA0102: Nov 29 3-6

Office Hour  Please contact by email or during lectures to make appointment.

Text Book
*Thinking Python: How to Think Like a Computer Scientist*, Cambridge University Press.

Other References  The following textbooks are not required but they can serve as good reference material:


Lectures
Part 0 Introduction:
Part 1 Imperative Programming:
Part 2 Array Programming:
Optional Reading: Kenneth Iverson Turing Lecture
Numpy Notes (Courtesy of Vinicius Dantas De Lima Melo)
Part 3 Persistent Programming:
Part 4 Object Oriented Programming
Part 5 Meta Programming
Part 6 Functional Programming
Part 7 Generators, Coroutines and Concurrent Programming

Assignments
There will be two assignments.

Quizes
Machine Project
You are required to complete a machine project in 4 lab sessions, in which you are to construct a web search service using Python programming language and the programming paradigms learned in class. The detailed project description is distributed separately.

Exams
There will be two comprehensive exams for this class: a 50min midterm and a 2:00hrs final. The exams will be based on material covered in the lectures (i.e., reading assignment), tutorials and the machine project. In all exams you are required to bring some form of valid picture ID.

Past Exams
2011 Midterm
Grading Policy

The weighting scheme for the class requirements will be as follows:

| Assignment | 10% |
| Quiz       | 10% |
| Project    | 20% |
| Midterm Exam | 20% |
| Final Exam | 40% |
| Bonus      | 10% |

Minor lab downtime will not qualify for project extensions. Nuclear meltdown in the lab might qualify. To protect yourself, keep backups on the lab machines so if your computer crashes, you can recover.

Absence from any exam will result in a zero score unless it is due to an emergency and official documentation is provided.

Cheating Policy

Cheating is against “fair-play” and will not be tolerated under any circumstances. While the pressures of many classes, homeworks, work and/or extracurricular activities can be great, this is never an excuse for copying solutions from others. "Helping" somebody by allowing them to "borrow" your work is not doing them a favor either, but indicates your approval and active participation in such activities. The University holds among its highest principles the notion of academic freedom and integrity. If you are caught cheating it may lower your grade or it can even give you a fail grade for the class. If you think that there is an issue that influences your performance in the class then talk to the instructor.

Remark Request

Fill in a remark request form, which will be available on the web.

Hand in the form and the lab/test to the TA.

You may not submit a remarking request later than two weeks returned. It’s your responsibility to pick up your work as soon as possible.

Mark can decrease if the TA finds something that was incorrectly awarded too high a mark.

If you are still not satisfied after getting back your remarked assignment (of after having a meeting with the marker), contact your instructor to discuss your situation.