CSCI 300 Programming Languages

Liz Johnson

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CSCI 300 - Programming Languages
TR 8:30-9:45 am, Hailstones 9

Professor: Liz Johnson
Office: Hinkle 109
Phone: 745-3667 (has voice mail also)
Email: johnsone@xavier.edu
Office Hours: M 1 pm-3 pm, T 10:30-12:30, W 11 am-1 pm, Th 2:30-4:30 and by appointment
Textbook: Fundamentals of Programming Languages (free at http://cs.luther.edu/~leekent/PL)
Other readings as assigned
Home Page: On Canvas (access via canvas.xavier.edu)

Course Description and Goals
The topic of this course is programming languages. The goal of the course is to provide you with the skills and knowledge necessary to evaluate programming languages and constructs. This will enable you to:

- effectively use language features in the languages you know,
- learn new languages more easily because you understand how languages are designed, and
- evaluate the suitability of a language for an application.

You will also be writing/modifying a compiler in order to better understand the language constructs.

You are expected to be in class each time we meet and be prepared to discuss the assigned reading.

Grading
Your grade will be based on 4 components:

1. homework (20%),
2. exams (40%),
3. compiler (30%)
4. quizzes (10%)

The Department of Mathematics and Computer Science follows the following grading standard:
A: Exceptional - The student's attainments are out of the normal course, unusual and special.
B: Good - The student's performance is done rightfully or skillfully and is commendable.
C: Satisfactory - The student's accomplishments are sufficient for the needs of the course.
D: Minimal passing
F: Failure

Plus/minus modifiers on the grades will be used to distinguish efforts within a particular category as deemed appropriate by the instructor. See http://www.xavier.edu/cs/Grading-Policy.cfm for further clarification of the departmental grading policy.

Grades on individual assignments will be posted to Canvas as they are available and a running calculation of your current grade will be included. Keep in mind that the current grade sometimes may exaggerate or downplay certain components. For example, if no exams have occurred, the effect of the homework is magnified.

In addition to the above components, you will be required to participate in a service opportunity working with elementary schoolchildren. This will either take the form of 1 Saturday morning at Breakthrough Cincinnati on campus, 2 sessions at the Academy of World Languages (AWL), or the Girls Advancing Technology event on October 5. We will have a sign-up sheet soon so that you can choose your date(s). If you cannot make these sessions due to your schedule, talk to the instructor so that we can come up with an alternative service opportunity for you. Failure to fulfill the service requirement will result in a 5 point deduction on your final course grade.

**Schedule**

The following schedule is tentative and may change in order to meet the needs of the class.

Week 1: Chapter 1 – Introduction
Week 2: Chapter 2 - Syntax
Weeks 3-4: Chapter 3 – Assembly Language
Weeks 5-6: Chapter 4 – C++
Week 7: Review and Exam 1
Weeks 8-9: Chapter 6 – ML
Weeks 10-11: Chapter 7- Compiler
Week 12: Review and Exam 2
Weeks 13-14: Chapter 8 – Prolog
Week 15: Chapter 9 – Type Inference
Tuesday, Dec 16, 8:30-10:20 – Final exam – cumulative
**Homework**

Some homework problems will be programs and others will be written exercises or responses to the reading. Homework is due at the beginning of class on its due date. In some cases (specified by the instructor), problems will be assigned to groups of students who may work together.

**Quizzes**

There will be regular short quizzes related to class and reading material. These will be on-line and posted immediately after class and due by the next class. If you read the assigned material and come to class, you should do fine on the quizzes.

**Exams**

There will be three exams. The first two exams will be worth 10% each. The final exam will be worth 20% and will be cumulative.

**Compiler Project**

As the semester goes along, you’ll be writing/modifying code related to a compiler. More on this later.

**Academic Integrity and Late Policy**

Unless otherwise instructed by me, homework, exams, quizzes, and compiler project are individual work. While you may discuss general concepts with your classmates, the work should be the result of your knowledge and skills. You are encouraged to discuss more specific concepts with me during office hours or by appointment. If work is not your own, you will be given a 0 on the assignment. At the discretion of the instructor, you could receive a failing grade in the course for a second infraction. You also have a responsibility to ensure that another student does not violate this policy with your work. For example, you must not allow another student to copy your exam.

I take the preceding paragraph seriously and expect students to take it seriously. See section 2.3.9.1 of the Xavier Student Handbook for a fuller discussion of the Academic Honesty policy at Xavier.

Assignments are due on the date and time specified by me except in an extreme emergency. Please plan ahead so that you allow sufficient time to complete assignments. Emergencies are expected to be reported to me as soon as possible so that I can give an extension if warranted. Never assume you will get an extension unless you talk to me.