CSC 231 - Programming Languages

Course Description: (4h) Lecture and laboratory. A comparative study of programming language paradigms, including imperative languages, functional programming, logic programming, and object oriented programming. Syntax, semantics, parsing, grammars, and issues in language design are covered.
Prerequisites: Computer Science 112 and Mathematics 117

Professor: Dr. William Turkett - Manchester 240, 758-4427, email: turketwh@wfu.edu
Office Hours: 4:00-6:00pm MT

Meeting Time For Class: 10:00-10:50am MWF, Manchester 241
Meeting Time For Lab: 1:30-2:45pm R, Manchester 241

Webpage: http://turkett231.blogspot.com
Please check the website frequently for updates concerning the class.

Textbook: Programming Language Pragmatics, 2nd edition by Michael Scott - Morgan Kaufmann Publishers - ISBN 0126339511

Grading:

- 3 Tests - 40%
- Programming Assignments (Lab Grades) - 40%
- Homeworks – 20%

Expected Grading Scale:

- 90% – A – Demonstrated mastery of course subjects
- 80% –B – Demonstrated advanced understanding of course subjects
- 70% –C – Demonstrated basic understanding of course subjects
- 60% –D – Demonstrated minimal understanding of course subjects
- F - Failure

Attendance:
Regular attendance in class and in the lab is expected.

Tests and Final Exam:
There will be three tests (including the final exam) to judge the student's progress in the course. These tests may include material from the appropriate sections of the textbook, lectures, homeworks, and programming assignments and are cumulative. Tests and exams will be closed book. Make up tests will be allowed only if the absence is excused by the University.

Homeworks:
Homeworks will be assigned at regular intervals to reinforce the content presented in the lecture and lab sections of the course. Homework answers will be discussed collaboratively during class sessions.

Programming (Lab) Assignments:
Lab assignments will be assigned weekly during the course of the semester. Blackboard will be used as the primary mechanism for collecting programming assignments. No late programming assignments will be accepted.

Academic Integrity:
All work should be done independently by each student. Copying of partial or complete work will be referred to the University Judicial System. You should keep evidence when possible to demonstrate your own work. Should a question of authorship arise you will be expected to produce documents that trace the development of your work. Algorithmic and electronic means of detecting copying may be used by the instructor on submitted assignments.

Learning Assistance:
If you have a disability that may require an accommodation for taking this course, please contact the Learning Assistance Center (758-5929) within the first two weeks of the semester.

Topics Covered:

- Evaluating Programming Languages
- Architecture—Language Interface
- Compilation Process
    - Recognizing Syntax
    - Parsing Meaning
- Major Language Design Concepts And Their Implementation:
    - Bindings
    - Data Types
    - Subprogram Control
    - Storage Management
    - Scope
    - Exception/Error Management
    - Objects
- Survey of Different Languages
    - C++/Java (Imperative)
    - ML (Functional)
    - Prolog (Rule-Based)
    - Lisp (List-Based)

Course Calendar:
January 16th – First day of class
January 17th – First day of lab
January 21st – Martin Luther King Holiday

February 15th – Test #1
February 20th – Last day to drop with a W

March 9th – Mid-term grades available
March 10th-14th – Spring Break holiday
March 21st – Good Friday holiday
March 28th – Test #2

April 30th – Last day of class

May 5th (Monday) – Final Exam @ 2:00pm

University Closure:
In the event that the University closes due to pandemic or other disaster, you will be provided with my home address, phone number, and a *CSC 231 Lecture Plan* document. You are requested to read the textbook material denoted within that document. Lecture materials, in the form of Powerpoint slides and/or videos; programming exercises; homeworks; and examination materials will be distributed electronically via email or via postal mail during the closure period. If the Internet is available, you should send electronic versions of your answers to the homeworks and programming exercises to either my WFU email address or turketwh@gmail.com. Tests should be taken closed book, without access to papers, persons, or other resources, and submitted via postal mail. A return date for the examinations will be specified in the mailing.

The Department of Computer Science would appreciate your help preparing for emergency situations in which students might be away from campus for an extended period of time during the course of a semester. For example, extreme weather or widespread health concerns might lead to an extended, but temporary, closing of campus facilities. Under such circumstances we would like for you to be able to continue your academic studies through electronic or postal communication channels. Please assist your instructor by providing the following information. This information will remain with your instructor and will not be disseminated in any way. Collected information will be shredded at the end of the semester.

Name: _____

WFU e-mail address: _____

(Optional) Other, non-WFU, e-mail address: _____

Telephone number where you can normally be reached during the semester:
_____

Telephone number where you can be reached if campus is closed:
_____

(Optional) Fax number where you can receive faxes if campus is closed:
_____

Mailing address where you can be contacted if campus is closed:
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