Class Syllabus: Scientific Programming

Fall 2010

Location	152 Dirac Science Library
Course name	Scientific Programming
Course number	ISC 5305
Course time	Tuesday: 9:30 am - 10:45 am Thursday: 9:30 am - 10:45 am
Office Hours	Tuesday: 11:00 am - 12:00 pm Thursday: 11:00 am - 12:00 pm
Instructor	Xiaoqiang Wang
Telephone (wk)	(850) 644-4274
FAX	(850) 644-0098
Email	wwang3@fsu.edu
Instructor home page	http://www.sc.fsu.edu/~wwang3
Prerequisites	Students must have knowledge of at least one programming language (hopefully one of Java, C++, or Fortran).
Text	None. Web-based documentation will be used.
Assignements	Students will be given homework problems on a weekly basis to help master the material learned in class. The assigments will be executed using the tools on eit the classroom machines (that are accessible remotely via ssh), or on the personal laptops or PCs of students. Using the linux operating system will be easiest. Assignments take the form of programs to write in one, two, or three of the languages worked on in class. The homeworks will often be intensive. Students sho expect to program 15 hours a week outside course time. The web is a bountiful resource of program examples and tutorials.
Course Objectives	This course proposes to teach students the basic elements of Fortran 90, Java, and C++ to enable them to perform simple to intermediate object oriented programming tasks. The course assumes basic familiarity with a programming language, but not necessarily some of its advanced aspects such as structures, poi etc. A student that completes this course will be comfortable thinking in objected oriented terms, know how to manipulate objects with dynamically changing information, know how to access elements of one language from another, learn to construct software libraries and more. Emphasis is placed on the commonaliti between the three languages with discussion of some of their features that make them unique.
Attendance	Students are required to attend all classes. Exemptions are only excepted for sickness and the attendance of scientific conferences. Students, not the professor, then responsible for bringing themselves up to date both on subject matter covered during class, as well as completing homework assignments in a timely manne Information given in class supplants information provided on the course web site.
Courtesy	You should get to class on time, and remain until class is dismissed. If you must leave class early, please let the instructor know before class begins. Please cons leaving home 15-20 min early to take potential morning traffic into account.
Grading	There will be homework given out on a weekly basis. These will consist of either articles to read and summarize (online), or programming homeworks. The summaries will usually be due one week after being assigned. The programming homeworks will usually be due 1-2 weeks after assignment. There is no final pr midterm or final exam. Article summaries count for 20 percent of the grade, programming assignments for 60 percent and class participation for 20 percent. Ev article summary homework has equal weight as does each programming assignment. Plus or minus grades may be assigned in a manner consistent with standard University practice. A grade of I will not be given to avoid a grade of F or to give additional study time. Failure to process a course drop will result in a course of F. If the scores are curved, the letter grades will be assigned after curving. Homeworks must be received on time, and uploaded through the Blackboard. Th homeworks are to be returned in zip format, whether article summaries or programming assignments. There is no guarantee that late homeworks will be graded.
Exam Policy	No written tests will be given during this class. Students are required to come to class up until the last lesson of the last week. Short of medical emergencies, a z will be given to any project that is not returned on time.
Honor code	The Academic Honor System of The Florida State University is based on the premise that each student has the responsibility 1) to uphold the highest standards academic integrity in the student's own work, 2) to refuse to tolerate violations of academic integrity in the University community, and 3) to foster a high sense o integrity and social responsibility on the part of the University community. Please note that violations of this Academic Honor System will not be tolerated in this class. Specifically, incidents of plagiarism of any type or referring to any unauthorized material during examinations will be rigorously pursued by this instructor. Before submitting any work for this class, please read the ``Academic Honor System'' in its entirety (as found in the *FSU General Bulletin* and in the *FSU Stu Handbook* and ask the instructor to clarify any of its expectations that you do no understand.
American Disabilities Act	Students with disabilities needing academic accommodations should: 1) register with and provide documentation to the Student Disability Resource Center (SD 2) bring a letter to the instructor from SDRC indicating you need academic accommodations. This should be done within the first week of class. This and other materials are available in alternative format upon request.