Introduction to Computing and Programming

CSCI-1301

Instructor: Arash Fard (Office: 539 Boyd GSRC)
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Instructor Home Page: www.cs.uga.edu/~ar
Course Home Page: www.cs.uga.edu/~ar/fall2009/
Class Time: Tu/Th 12:30 - 1:45 (X Hall, Room Y)
Instructor Office hours: 3:30 -5:00 MW

Teaching Assistant: TBA
TA's Office hours:

Course Objective:


We will introduce some fundamental ideas in Computer Science, focusing on the object-oriented programming language Java. This will include the fundamentals of the object-oriented paradigm (classes, objects, encapsulation, inheritance and polymorphism), basic data structures (arrays and linked lists), and basic algorithms (searching and sorting).

Topics to be covered

- Computer basics, Software/Hardware, the Java programming language
- Writing simple Java programs
- Strings, variables, data types, assignments, primitives, expressions, conversions
- The Scanner class, program input
- Conditionals, Logic, Boolean expressions, Nested if statements, switch statements
- Loops, Nested loops, Iterators, Complexity
- Formatting output
- Packages, Wrappers, Using other class packages
- Creating classes and objects
- Containers - Arrays, ArrayLists, Vectors
- Interfaces
- OOP Concepts - Abstract Classes, Class Hierarchies, Inheritance, Polymorphism
- Other Topics (Time Permitting) - GUI, structures, sorting complexity

Textbook:
“Java: An Introduction to Problem Solving and Programming” (5th Edition), Walter Savitch, Frank M. Carrano

Labs:
There is a required lab that meets twice a week for the entire semester. There will be one or two lab exercises assigned per week that are designed to be completed during the scheduled lab period.

Grading Policy (subject to change):

- Labs: 20%
Computer Science
Departmental Policy Statement
Academic Honesty

The Computer Science Department recognizes honesty and integrity as necessary to the academic function of the University. Therefore all students are reminded that the CS faculty requires compliance with the conduct regulations found in the University of Georgia Student Handbook. Academic honesty means that any work you submit is your own work.

Common forms of academic dishonesty which students should guard against are:

- copying from another student's test paper or laboratory report, or allowing another student to copy from you;
- fabricating data (computer, statistical) for an assignment;
- helping another student to write a laboratory report or computer software code that the student will present as his own work, or accepting such help and presenting the work as your own;
- turning in material from a public source such as a book or the Internet as your own work.

Three steps to help prevent academic dishonesty are:

- Familiarize yourself with the regulations.
- If you have any doubt about what constitutes academic dishonesty, ask your instructor or a staff member at the Office of Judicial Programs.
- Refuse to assist students who want to cheat.

All faculty, staff and students are encouraged to report all suspected cases of academic dishonesty. All cases of suspected academic dishonesty (cheating) will be referred to the Office of Judicial Programs. Penalties imposed by the Office of Judicial Programs may include a failing grade in the course and a notation on the student's transcript. Repeated violations are punishable by expulsion from the University. For further information please refer to the UGA Code of Conduct, available at the URL below.