COMS W3101-02

Programming Languages
(JAVA)

Fall 2000

Course Scope

- Core JAVA
  - Data manipulation, flow control, operators…
- Object Oriented Design and Programming
  - Classes, interfaces, inheritance…
- Graphics and Graphical User Interfaces
  - RAD tools, event driven programming, vector graphics
- A brief look into some “advanced” topics
  - Threads, synchronization, sockets, RMI, JDBC and data structures that are part of the J2SE package
Intended Audience

Prerequisites:

- Basic computer literacy
  (power button, word processing…)
- Internet literacy
  (web browsing, email, ftp…)
- Some form of programming experience
  (3 months commercial / 1 semester academic)
- Basic mathematical skills
  (algebra, basic trigonometry…)

Instructor Qualifications

- ~15 years of programming experience
  - … ~7 years consulting industrial/commercial sector
  - … worked with JAVA since it’s inception
- Education
  - B.Eng. and M.Eng. in EE from Cooper Union, 5/98
  - M.S. in Computer Science, Columbia Univ., 12/99
  - PhD Candidate, CS dept., Columbia Univ., current
- Professional Certifications
  - Microsoft Certified Systems Engineer
  - Cisco Certified Network Associate
Course Benefits

- Learn JAVA!
- JAVA is the language of choice for…
  - Middleware (especially .com technology)
  - Interactive web front-ends (applets)
  - Distributed applications
- JAVA is the language many CS courses use
- JAVA is important for both academic and commercial/industrial programmers

Grading Distribution

- Programming Assignments – 67%
  - Given out weekly
  - Will progressively get harder
- Exams – 33%
  - Will cover theoretical aspects of the course
  - One single final exam only
- You will not receive a grade without taking the exam and turning in all assignments
Assignments

- Programming assignments are due the following week before class
- No late assignments will be accepted due to the short duration of this class
- All assignments are to be emailed to csw3101-2@columbia.edu

Cheating

- Columbia has policies about collaboration…
  - You will receive the lowest possible grade for the assignment / exam
  - You will be reported to the Dean for disciplinary action
- Collaboration at a theoretical level is permitted
- Sharing of source code is explicitly prohibited
- As for anything else in between, you know what is cheating and what is not cheating…
- No required legacy (paper) textbook
- Ebooks @ http://java.sun.com/docs/
  - JAVA Tutorial (Basics and GUI trails)
- This legacy book might help:
  - J. Weber, Using JAVA2 Special Edition, QUE publishing… available from Amazon.com