

WEBSTER UNIVERSITY  
COURSE SYLLABUS

EDTC-5250.01

Instructor: Mike Gage

Programming Languages: Java

Term: Spring 2003

Site: Webster Groves Campus

1. Course Description: (Student focus, rationale, scope, prerequisites)

The course presents object-oriented programming principles using the Java™ programming language. Good programming practices will be presented, with emphasis on actual development. Emphasis will be on applications that may be useful in the classroom.

2. Learning Outcomes: (Goals, objectives, course outcomes, etc.)

The course is designed to provide the student with an adequate understanding of the Java™ Programming language to enable him or her to design and implement Java™ programs for his or her own use or use in the classroom. The student will also be given the knowledge and resources to further develop his or her own expertise in Java™ programming.

3. Schedule of required readings, class preparations and assignments, lectures, discussions, student presentations, and exams:

Tentative Schedule

Week 1: Installing Java™ SDK, setting up system for Java™, HelloWorld.java

Week 2: Object-oriented concepts

Week 3: Java™ language fundamentals, flow control

Week 4: Operators and assignments, variable types

Week 5: More flow control, exception handling

Week 6: Classes and inheritance

Week 7: Interfaces and packages  
Week 8: Handling errors and exceptions  
Week 9: Threads  
Week 10: Reading and writing  
Week 11: Graphical User Interface design using AWT  
Week 12: Swing  
Week 13: More Swing  
Week 14: Files and streams, Javadoc™  
Week 15: Project demonstrations  
Week 16: Project demonstrations

4. Resources:

Text Used: The Java™ Tutorial, Third Edition – A Short Course on the Basics,  
Mary Campione, Kathy Walrath, Alison Huml, Addison-Wesley, 2001  
ISBN 0-201-70393-9

Supplemental Readings: <http://developer.java.sun.com/> – various topics.

Audio Visual/Other : Java™ 2 SDK

5. EVALUATION:

- a) Software projects ( 80% ): The student will be developing short software applications throughout the course. Each student will also develop one comprehensive application to be completed by the end of the course. The student's grade will be primarily based upon the programs' good design.
- b) Interest level( 20% ): The student's grade will also be based in part upon the interest that he or she shows in developing and advancing his or her programming skills.

6. Supplements: <http://developer.java.sun.com>

7. 3 Hour Courses: Students taking an 8 week course for 3 credit hours will complete the following additional assignments and/or attend the following additional class meetings:

(not applicable)

8. Final Projects: Each student will design and develop an application based upon his or her interests.

This syllabus is subject to change at the discretion of the instructor.

Regular attendance is required.