

## SYLLABUS

IDS 401: Business Object Programming Using Java  
Call numbers: 20266 and 16733  
Spring 2006  
Prerequisite: IDS 201 or its equivalent

Instructor: Jan Sunjaya  
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Lecture Time: Wednesday 6:00 P.M. - 8:30 P.M.  
Lecture Location: Lecture Center A2  
Lab Time: Wednesday 4:30 P.M. - 5:30 P.M.  
Lab Location: SEL 2058  
Office Hours: 10:00 A.M. - 12:30 P.M. Friday

### Course Description

This course is designed to study the basic concepts in object-oriented programming such as objects, classes, class inheritance and interfaces, data abstraction and encapsulation, polymorphism, and dynamic binding. The UML class diagram is used as a tool for visualizing class characteristics and relationships. The Java Graphical User Interface components and the concepts of event-driven programming and event-delegation model (event registration, listening, and handling) will also be discussed. Several examples on how to use these concepts will be provided and discussed in class. These concepts are then used to design and implement traditional data structures constructs, including lists, stacks, queues, binary trees, and heaps.

### Course Objectives

Upon completion of this course, the student will learn good software engineering principles. These include modularization, data abstraction and encapsulation, stepwise refinement, visual aids, the analysis of algorithms, as well as the choice, design, and implementation of appropriate data structures for use in the application programs.

### Topics

1. Introduction to Computers, Programs, and Java	3 hours
2. Basic concepts in procedural programming	5 hours
2. Basic concepts in object-oriented programming	20 hours
3. Time complexity, stacks, queues, binary trees, and heaps	9 hours
4. Collection Framework	3 hours
5. Review for midterm and final exams	5 hours
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Total:	45 hours

### Assignments

There will be four to 6 programming assignments. All programs must be written in Java.

### Grading

Four to 6 assignments	40%
One midterm exam	30%
One final exam	30%

### Letter Grades Determination

A: Total score $\geq$ 90
B: $80 \leq$ Total score $<$ 90
C: $70 \leq$ Total score $<$ 80
D: $60 \leq$ Total score $<$ 70
E: Total score $<$ 60

### Total Score Calculation

Total score =  $0.4 \times (\text{Avg. of assignments}) + 0.3 \times \text{Midterm} + 0.3 \times \text{Final}$   
Depending on class performance, the grades might be curved.

### Required Text

Title: Introduction to Java Programming, 5th edition, Comprehensive version.  
Authors: Y. Daniel Liang  
Publisher: Prentice Hall  
Year Published: 2004  
ISBN: 0-13-148952-6

**Tentative outline**

<b>Date</b>	<b>Subject</b>	<b>Reading Assignments</b>
Week 1	Introduction, Primitive Data Types, and Control statements	Chapters 1-3
Week 2	Methods and Arrays	Chapters 4-5
Week 3	Objects and Classes	Chapter 6
Week 4	Strings, Inheritance and Polymorphism	Chapters 7-8
Week 5	Abstract Classes and Interfaces	Chapter 9
Week 6	Review for Midterm	
Week 7	<b>Midterm Exam: Chapters 1-9</b>	
Week 8	Object-Oriented Modeling Getting Started with GUI Programming	Chapter 10 Chapter 11
Week 9	Event-Driven Programming Creating User Interfaces	Chapter 12 Chapter 13
Week 10	<b>Spring Break (no classes)</b>	
Week 11	Exceptions and Assertions Multithreading	Chapter 15 Chapter 19
Week 12	Object-Oriented Data Structures	Chapter 17
Week 13	Object-Oriented Data Structures (cont.)	Lecture Notes
Week 14	Object-Oriented Data Structures (cont.)	Lecture Notes
Week 15	Java Collections Framework	Chapter 18
Week 16	Review for final exam (chapters 10-13, 15, 17, and 18)	
Week 17	Final Exam Time and place: to be arranged (see on Blackboard)	

**College of Business Administration  
University of Illinois at Chicago**

**Honor Code for the College of Business Administration**

As an academic community the College of Business Administration at the University of Illinois at Chicago is committed to providing an environment in which teaching, learning, research, and scholarship can flourish and in which all endeavors are guided by academic and professional integrity. All members of the college community – students, faculty, staff, and administrators – share the responsibility of insuring that high standards of integrity are upheld so that such an environment exists.

In pursuit of these high ideas and standards of academic life, as a student I hereby commit myself to respect and uphold the University of Illinois at Chicago (UIC) College of Business Administration Honor Code during my entire matriculation at UIC. I agree to maintain the highest moral and ethical standards in all academic and business endeavors and to conduct myself honorably as a responsible member of the college academic community. This includes the following:

- Not to seek unfair advantage over other students, including, but not limited to giving or receiving unauthorized aid during completion of academic requirements;
- To represent fact and self truthfully at all times;
- To respect the property and personal rights of all members of the academic community.

An abbreviated version of the Honor Code pledge may be printed on course syllabi, exam booklets, and other uses as deemed appropriate. The abbreviated version is as follows:

This course and its associated coursework are being administered under the policies of the University of Illinois at Chicago (UIC) College of Business Administration Honor Code. All students are expected to respect and uphold this code.

**Honor Code Violations and Enforcement**

Violations of the Honor Code are just causes for discipline under the University of Illinois at Chicago Student Disciplinary Procedure, and all allegations of Honor Code violations shall be handled pursuant to that Procedure.

(For a complete description of just causes for discipline, disciplinary procedures, and sanctions, see the pamphlet “Student Disciplinary Procedure of the Senate Committee on Student Discipline,” available from the Office of the Dean of Students, SSB, Suite 3030, 1200 W. Harrison St., M/C 318.)

**Honor Code Council**

The Honor Code Council shall be formed consisting of two faculty members elected by faculty vote and six student members (two graduate students and four undergraduate students) appointed by the Assistant Dean for Student Services through recommendation of the Dean’s Advisory Council (DAC). Each member will serve a term of one academic year, beginning in August. The Council shall elect a chairperson and a secretary.

The duties of the Honor Code Council shall include:

- Recommend changes in the Honor Code.
- Inform all students, staff, and faculty of the Honor Code and the procedures to be followed for pursuing alleged Honor Code violations.
- Ensure that the Honor Code is prominently displayed within the College of Business Administration and on course syllabi and exam booklets.
- Ensure that the Honor Code and related information are accurately described in the Graduate and Undergraduate catalogs.
- Work with the Office of Student Services to include the Honor Code in its promotion of the University of Illinois at Chicago College of Business Administration to potential students.
- Work with college administration to ensure that the Honor Code statement is signed by all students prior to their enrollment in the college.
- Inform all UIC faculty, staff, and students of the Honor Code of the College of Business Administration, and encourage the adoption of its principles.