



ITK 178

Course Introduction

Kyoungwon Suh



Introductions

- Me
 - K-young-won Suh
 - Ben
 - <http://www.itkilstu.edu/faculty/kwsuh>
- You



Syllabus

- ❑ Instructor: Kyoungwon Suh
- ❑ Office: Old Union 302B Department: Old Union 202
- ❑ Phone: Office: 438-3744 Department: 438-8338
- ❑ Email: kwsuh@ilstu.edu
- ❑ Office Hours: Monday/Wednesday 2:00 PM to 4:00 PM or by appointment
- ❑ Course Web Site(s):
<http://www.itk.ilstu.edu/faculty/kwsuh/courses/itk178fall08> and
WileyPlus (<http://www.wileyplus.com>)
- ❑ Blackboard (<http://blackboard.ilstu.edu>) will be used to post grades



Description

- This course is a continuation of ITK 177 (ITK 189.02 in the past). The course provides additional detail into **object-oriented programming** and how it is used in information technology. Topics include: object-oriented design, interfaces, polymorphism, using various data structures, exceptions, string, dates, events, GUI, threads, database access, and web-based applications. Throughout the course good **design, testing, and programming principles** will be emphasized.



Objectives

Upon completion of this course you should

1. Be able to describe classical and advanced **problem solving strategies** and use them in solving problems that can be implemented on a computer.
2. Be able to use accepted program **design strategies and tools** to design and implement a solution for a problem on a computer.
3. Understand and write programs with various uses
4. Be able to develop appropriate **testing procedures** for simple programs.
5. Be able to write computer programs that use **graphical interfaces** in a high level programming language.



Textbooks and Class Materials

- Required Textbooks
 - Horstmann, Cay S. Big Java 3rd Edition, Wiley. ISBN 978-0-470-10554-2 , ©2008
- Materials
 - All of the course materials will be available through <http://www.itk.ilstu.edu/faculty/kwsuh/courses/itk178fall08> or WileyPlus. Check both web sites often for updates.
 - WileyPlus registration
 - Comes with book
 - Or can be bought separately - \$45
 - Complete book text on WileyPlus
- Eclipse SDK 3.4



Commitment

- Programming courses are time intensive. You must be prepared to spend the usual 2 hours of study for each hour in lecture **plus** additional time for designing, coding, debugging and executing your programs (10 hours per week when programming is **normal**).

NO PAIN, NO GAIN!



Exams

- The two midterm exams will be held in class. If you are unable to attend an exam due to illness or another valid reason, you must notify your instructor **prior to** the exam to make arrangements for making up the exam. If you are unable to reach your instructor personally, email your instructor or leave a message either in the ITK department office (Old Union 202) or on your instructor's voice mail. **No makeup examination will be administered without the instructor's notification and validation of the excuse before the exam date.** You should make arrangements **now** to attend the exams.



Programming Assignments

- ❑ You will receive weekly programming assignments in this course. Solutions must adhere to the design, coding and documentation standards presented in class.
- ❑ Programs are due as indicated on the assignment as given in WileyPlus and will be submitted through WileyPlus. WileyPlus does not give a grace period. If programs are turned in at 11:01 (time is according to the WileyPlus server), they will be late.
- ❑ Programs containing compilation errors will receive failing grades. Those containing run-time errors will incur a substantial penalty.
- ❑ You should make a serious effort to complete all programs on time. Programs may be turned in up to three days late for a 10% penalty per day (M-S). After that, they will not be accepted.



Plagiarism and other forms of cheating

- ❑ Knowingly turning in work that you did not do is plagiarism, the most common form of cheating. It is unacceptable in this course and a foolish way to try to get through the course.
- ❑ Do not work with anyone else on programs and other assignments unless you have been told that it is acceptable by your instructor for the specific assignment.
- ❑ Do not work together on individual programming assignments.
- ❑ Do not discuss individual assignments, including programming assignments, with people other than your instructor.
- ❑ Do not show someone your completed program or parts of it, even if the person claims not to intend to cheat.
- ❑ Any case of cheating will result in a minimum penalty of a zero on the assignment.
- ❑ This applies to both the person who did the work and made it available and the person who copied.
- ❑ The maximum penalty will be an F in the course and pursuit of further disciplinary action.
- ❑ **All** cheating will be reported to SDRS as required by university policy (see your student handbook).



Evaluation

| | |
|--------------------------|-------------|
| Exam 1 | 15% |
| Exam 2 | 15% |
| Final Exam | 20% |
| Programming Assignments | 40% |
| Project(s)/quizzes/other | 10% |
| Total | 100% |



Grading Scale

- A
 - 90-100
- B
 - 80-89
- C
 - 70-79
- D
 - 60-69
- F
 - Below 60



Lab Facilities

- ❑ No formal lab time
- ❑ Scheduled laboratory sessions will be held in Old Union. Homework and programming activities may be completed in Old Union 133 and any other labs in Old Union when they are not in use.
- ❑ You will use your ISU ID card to get into the labs.



Important Dates

- Friday, August 29: Last day to withdraw without a WX
- Friday, October 10: Last day to withdraw with a WX
- Saturday, December 6: Classes end
- Final Exam
 - Section 1: December 9 3:10 – 5:10PM
 - Section 2: December 11 5:30PM to 7:30PM,



Eclipse

- www.eclipse.org
- **Eclipse SDK 3.4**



Review: How much do you know?

- ❑ What is an object?
- ❑ What is an instance variable?
- ❑ What is a method?
- ❑ What is a class?
- ❑ How does inheritance work?
- ❑ How does if/then/else work?
- ❑ What kinds of loops are there?
- ❑ How do they work?



Review: How much do you know?

- ❑ What is an array?
- ❑ What can go into an array?
- ❑ How do you put objects into an array?
- ❑ How do you call a method on an object in an array?
- ❑ How do you print every element in an array?
- ❑ How do you read from a file?
- ❑ How do you write to a file?



Short answers

- <http://java.sun.com/docs/books/tutorial/java/concepts>
- <http://java.sun.com/javase/6/docs/api/index.html>
- **What Is an Object?**
 - An object is a software bundle of related state and behavior.
- **What Is a Class?**
 - A class is a blueprint or prototype from which objects are created.
- **What Is Inheritance?**
 - *inherit* commonly used state and behavior from other classes.

```
class MountainBike extends Bicycle {  
    // new fields and methods defining a mountain bike would go here  
}
```



Short answers - continued

- Types of loops:
 - “for” statement; “while” statement; “do..while” statement
- What can go into an array?
- Call a method on an object in an array
- Print every element in an array
 - toString() method returns a string representation for each object
- Read from a file
- Write to a file