

ComS 207: Programming I

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http://www.cs.iastate.edu/~alex/classes/2007_Fall_2007/

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Introduction and First Program

August 20, 2007

*ComS 207: Programming I (in Java)
Iowa State University, FALL 2006
Instructor: Alexander Stoytchev*

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Outline

- Class Overview
- Syllabus
- First Program

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A silly question

- How many of you know how to read and write?

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Well, this was not always the case



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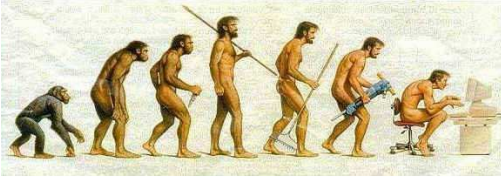
A silly question

program

- How many of you know how to ~~read and write?~~

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Today programming is becoming a required skill for many jobs



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Language Acquisition

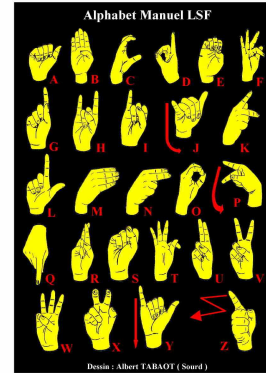


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[<http://www.wellroundedkids.com/store/Accessories/wooden%20alphabet%20puzzle.jpg>]

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Desain : Albert TABAOT (Saad)

[<http://www.usm67.org/alphabet/images/alphabet.jpg>]

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Java

- A *programming language* specifies the words and symbols that we can use to write a program
- A programming language employs a set of rules that dictate how the words and symbols can be put together to form valid *program statements*
- The Java programming language was created by Sun Microsystems, Inc.
- It was introduced in 1995 and it's popularity has grown quickly since

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Reserved Words

- The Java reserved words:

abstract	else	int	strictfp
boolean	enum	interface	super
break	extends	long	switch
byte	false	native	synchronized
case	final	new	this
catch	finally	null	throw
char	float	package	throws
class	for	private	transient
const	goto	protected	true
continue	if	public	try
default	implements	return	void
do	import	short	volatile
double	instanceof	static	while

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Focus of the Course

- This is an intro to programming class (that uses the java programming language)
- The focus is on
 - the logic of programming
 - problem solving
 - program design, implementation, and testing
 - object-oriented concepts
 - classes
 - Objects
 - methods

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Focus of the Course

- This class is geared for non-Computer Science majors.
- If your major is CS you should take ComS 208.
- However, this does not mean that this is an easy class...

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In other words, this class is NOT



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What this class will NOT cover

- We will not go into details of programming GUIs
- We will not cover many of the libraries and classes that ship with the java language
- Currently there are > 2,500 classes in these libraries
- We will not cover some advanced Object-Oriented concepts

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Warning

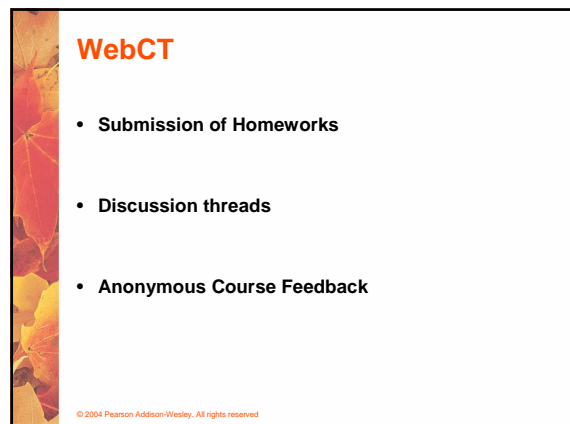
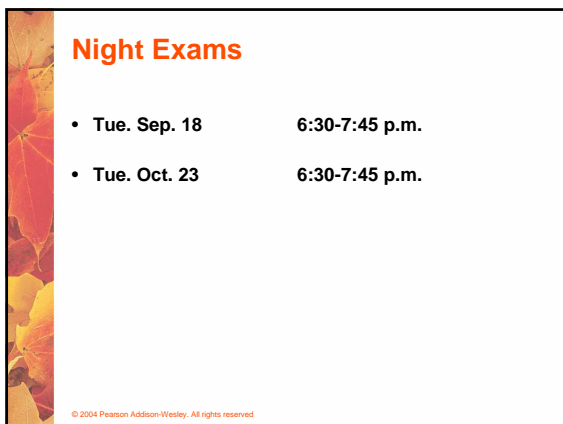
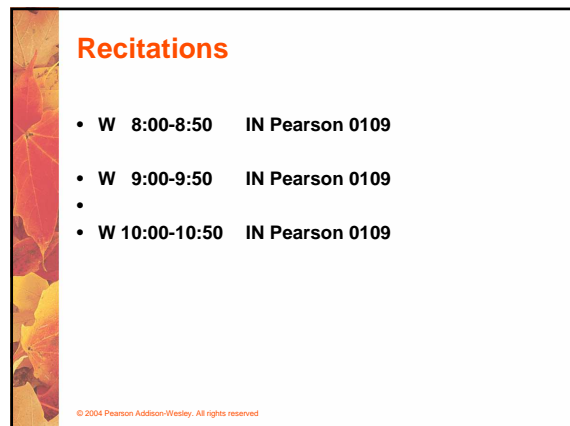
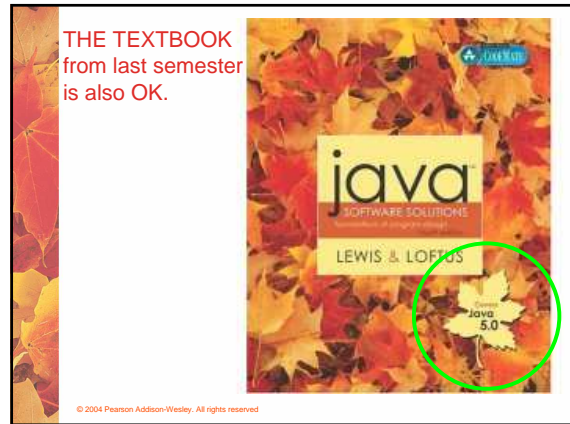
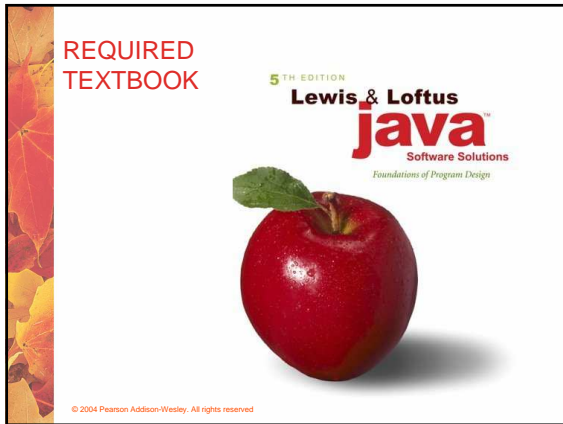
- Learning how to program takes a lot of time!
- It also requires a lot of patience.
- You cannot learn how to program by just reading a textbook. You have to spend long hours in front of the computer.
- If you want to learn how to program well you will have to take at least 2-3 classes. This class alone is not enough.

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Syllabus

- Posted on the Class Web Page:
 - http://www.cs.iastate.edu/~alex/classes/2007_Fall_207/

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First Program

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Java Program Structure

- In the Java programming language:
 - A program is made up of one or more *classes*
 - A class contains one or more *methods*
 - A method contains program *statements*
- These terms will be explored in detail throughout the course
- A Java application always contains a method called `main`

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Java Program Structure

```
// comments about the class
public class MyProgram
{
    // comments about the method
    public static void main (String[] args)
    {
        System.out.println("Hello World!");
    }
}
```

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Java Program Structure

```
// comments about the class
public class MyProgram
{
}
// comments about the class
```

class header

class body

Comments can be placed almost anywhere

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Java Program Structure

```
// comments about the class
public class MyProgram
{
    // comments about the method
    public static void main (String[] args)
    {
    }
}
```

method body


method header

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Questions/Comments?

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THE END

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