

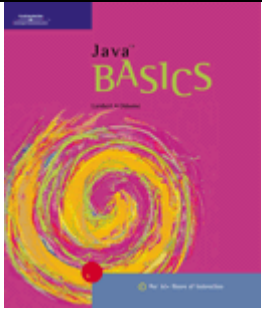
# Computer Science II

## Course Syllabus

### 2007-2008

- Instructor:** Andrew Pond
- Contact:** e-mail: [andrewpond@bellsouth.net](mailto:andrewpond@bellsouth.net); phone: (954) 881-5055
- Course title:** Computer Science II
- Description:** This course covers advanced topics in computers. Students will acquire programming fundamental skills using JAVA as a programming language. Additional topics related to current technologies, computer ethics, web design and programming, and networking fundamentals will be presented.
- Term:** 2007-2008 School year
- Class meeting:** Thursday
- Contact hours:** 32 meetings of 1.25 hours = 40 hours
- Prerequisites:** Students taking this course must demonstrate an intermediate level or higher proficiency with computers. They should understand file management, run applications and be practiced in accessing the Internet. Basic Algebra and problem solving skills are helpful. The course is intended for motivated high school students looking to gain beginning skills in the computer science field of study.

**Textbook:**

	<p>Java BASICS</p> <p>Kenneth Lambert, Martin Osborne ISBN 13: 978-0-619-05967-5 © 2003 ISBN 10: 0-619-05967-2 Publish date: May 14, 2002 336 pages Hardcover, spiral-bound</p>
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- Course objectives:**
- Describe the background of computers.
  - Explain fundamental topics of programming.
  - Demonstrate the program development using an object-oriented

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language.

- Utilize programming control statements in a program.
- Describe the basic skills with regard to computer support and networking.

#### **Class policies:**

#### **Student expectations**

Students will be assigned both reading and project work to complete outside of the classroom. Although time required to complete assignments will vary between individual students, one should be prepared to commit an average of 3 hours per week, outside the weekly class meetings, to complete assigned course work. Access to a personal computer with Internet access and office application software will be required to complete assignments.

#### **Class notebook**

Each student will maintain a notebook of completed assignments and projects.

All work submitted should contain the student's full name and date.

#### **Computer care**

Students are expected to exercise conscientious care of all computer equipment. The equipment is expensive and must be handled in a manner in order to protect it from damage.

Students are not to change the configuration of any of the computers without the direction of the instructor. This includes changing the screen saver, desktop picture, security settings or other similar behaviors.

Students are not to install software on the computers.

No food or drink is to be kept near the computers.

Students are asked to report any problems they encounter with a computer as soon as it occurs.

#### **Internet & proper computer use**

Students are required to use the computer and access to the resources of the Internet in a manner that is widely considered supportive of biblical views. Students are not to engage in any computer use that is distracting, offensive or harmful to others.

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#### Weekly outline:

#### Semester I

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#### Week 1

Course welcome

#### ***Background***

Homework for week 2:

By Friday –

Read Unit 1, sections 1.1 – 1.3, pages 1 through 14.

Complete Exercise 1.2 & 1.3, typing your answers into MS Word to print and keep in your class binder.

By Tuesday –

Read Unit 1, sections 1.4 – 1.6, pages 15 through 23.

Complete Exercise 1.4, 1.5 & 1.6, typing your answers, keeping a printout in your binder.

By Wednesday –

Complete Review Questions & Project 1-1. Be prepared to discuss in class your answer to Critical Thinking.

#### Week 2

***Background – continued. In class discussion on Unit 1 assignments.***

#### ***JAVA Development Environment***

#### Week 3

***Lesson 2 – First Java Program – Operators & Data Types***

#### Week 4

***Lesson 2 – First Java Program***

#### Week 5

***Lesson 3 – Syntax, Errors, And Debugging***

#### Week 6

***Lesson 3 – Syntax, Errors, And Debugging***

#### Week 7

***Lesson 3 – Syntax, Errors, And Debugging***

#### Week 8

***Lesson 4 – Introduction to Control Statements***

#### Week 9

***Lesson 4 – Introduction to Control Statements***

#### Week 10

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#### *Lesson 4 – Introduction to Control Statements*

Week 11

#### *Lesson 4 – Introduction to Control Statements*

Week 12

#### *Lesson 5 – Introduction to Defining Classes*

Week 13

#### *Lesson 5 – Introduction to Defining Classes*

Week 14

#### *Lesson 5 – Introduction to Defining Classes*

Projects & Exercises

Week 15

TBD

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#### Semester II

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Week 16

*Lesson 5 – Introduction to Defining Classes*

Week 17

*Lesson 6 – Control Statements Continued*

Week 18

*Lesson 6 – Control Statements Continued*

Week 19

*Lesson 6 – Control Statements Continued*

Week 20

*Lesson 7 – Improving The User Interface*

Week 21

*Lesson 7 – Improving The User Interface*

Week 22

*Lesson 7 – Improving The User Interface*

Week 23

*Lesson 8 – Introduction to HTML and Applets*

Week 24

*Lesson 8 – Introduction to HTML and Applets*

Week 25

*Lesson 8 – Introduction to HTML and Applets*

Week 26

*PC Configuration & Troubleshooting*

Week 27

*PC Configuration & Troubleshooting*

Week 28

*Introduction to Networking*

Week 29

*Project work & Case studies*

Week 30

*Project work & Case studies*

Week 31

*Project work & Case studies*

Week 32

Course Wrap up