



Southside High School

An International Baccalaureate High School

6630 Frontage @ White Horse Rd--Greenville, 29605 SC-- 864-355-8700

"Creating a Common School Culture of Excellence" Fax 864-355-8798

Course Syllabus

School Year: 2012-2013

Instructor: Mr. Rogers

Course: AP Computer Science

Room #: 134, 105

Phone: 877-8737

Email address: tkrogers@greenville.k12.sc.us

After school Extra-Help (Days/Time): Tues., Thurs., and Friday after school

General Course Description and Objectives:

AP Computer Science: goes beyond merely learning how to use applications like word processing, spread sheets, and internet browsers. It uses the Java language and focuses on the basic principles needed to design and build applications. It's a college level course. At the course's end, students will be required to take the AP Computer Science A test. If they pass they may receive college credit for one semester of computer science.

Course Outline

I. **Unit Title:** Software & Hardware Basics

Begin and End Dates: 08 -19, 09 - 18

Chapters: 1, 2

Specific Outcomes (Objectives/Standards):

AP Computer Science Standard: II Program Implementation, III Program Analysis, VI Computing in Context,

I Object-Oriented Program Design

Unit Assessment: Test

II. **Unit Title:** Introduction to Classes & Objects

Begin and End Dates: 09 - 21, 10 - 02

Chapters: 3

Specific Outcomes (Objectives/Standards)

Object-Oriented Program Design, II Program Implementation

Unit Assessment: Test

- III. Unit Title:** Algorithms
Begin and End Dates: 10 – 05, 10 - 16
Chapters: 4

Specific Outcomes (Objectives/Standards)

Program Analysis

Unit Assessment: Test

- IV. Unit Title:** Java Syntax and Style, Data Types, Variables, and Arithmetic
Begin and End Dates: 10 – 19, 10 - 30
Chapters: 5 & 6

Specific Outcomes (Objectives/Standards)

Program Implementation, III Program Analysis

Unit Assessment: Test

- V. Unit Title:** Boolean Expressions and Conditional Control
Begin and End Dates: 11 – 02, 11 - 13
Chapters: 7

Specific Outcomes (Objectives/Standards)

Program Implementation, III Program Analysis

Unit Assessment: Test

- VI. Unit Title:** Iterative Statements (Loops)
Begin and End Dates: 11 – 16, 12 - 04
Chapters: 8

Specific Outcomes (Objectives/Standards)

Program Implementation, III Program Analysis

Unit Assessment: Test

VII. Unit Title: Implementing Classes and Using Objects
Begin and End Dates: 01 – 04, 12 - 18
Chapters: 9

Specific Outcomes (Objectives/Standards)
II Program Implementation, III Program Analysis

Unit Assessment: Test

VIII. Unit Title: Strings
Begin and End Dates: 01 – 20, 02 - 02
Chapters: 10

Specific Outcomes (Objectives/Standards)
II Program Implementation, III Program Analysis

Unit Assessment: Test

IX. Unit Title: Class Hierarchies and Interfaces
Begin and End Dates: 02 – 03, 02 - 18 - 10
Chapters: 11

Specific Outcomes (Objectives/Standards)
I. Object-Oriented Program Design

Unit Assessment: Test

X. Unit Title: Arrays and ArrayLists
Begin and End Dates: 02 - 11 – 10, 02 - 18 - 10
Chapters: 13

Specific Outcomes (Objectives/Standards)
II Program Implementation, III Program Analysis

Unit Assessment: Test

XI. Unit Title: Searching Sorting and Other Array Elements
Begin and End Dates: 02 – 19, 03 - 19
Chapters: 12

Specific Outcomes (Objectives/Standards)

Unit Assessment: Test

XII. Unit Title:
Begin and End Dates:
Chapters:

Specific Outcomes (Objectives/Standards)

Unit Assessment: Test

XIII. Unit Title: Personal Project
Begin and End Dates: 12 – 07, 05 - 03
Chapters: 10 & 11

Specific Outcomes (Objectives/Standards)
Design and create a significant software project

Unit Assessment: Test

Text:

Java Methods A & AB
Object-Oriented Programming and Data Structures AP Edition, Maria Litvin, Gary Litvin, 2006, by Skylight Publishing,
ISBN 978-0-9727055-7-8

Materials Needed:

1. **A USB thumb drive** or other storage media for maintaining your electronic portfolio of physics assignments. We will attempt to be as close to a paperless classroom as possible.
2. **A set of dry erase markers.** You will frequently be working problems in class on a white board.
3. **A package of 3x5 cards:** Starting immediately, each student will, over the course of the year create a set of flash cards to use as a study aid.
4. **A graphing calculator**

Grading Policy and Assessments:

A = 93-100
B = 85-92
C = 77-84
D = 70-76
F = 0-69

Quarter:**Major Assessments:****Minor Assessments:**

Minor assessments will consist of: Tests and major projects

Major assessments will consist of: Homework, participation, labs, minor projects

Attendance Policy:

School Policy: a student may not miss more than ten days from a year-long course. Those ten days include parent's notes, suspensions, unexcused absences, administrative, or late arrival notes. After ten absences, a doctor's note or administrative excuse must be provided or the student will not receive credit for the course.

What to do if you miss a class:

Excused Absence: Quizzes cannot be made up but will not count against a student with an excused absence. If you have an excused absence, you will be able to make up all other work. Provision for make-up work is the student's responsibility and must be done outside of class within five (5) consecutive school days after the student returns to school.

Unexcused Absence: Make up work and tests for unexcused absences will not be accepted.

Academic and Behavioral Expectation

- 1.If Mr. Rogers, a guest speaker, or a substitute is addressing the class or a test is in progress, students should be silent. Otherwise, students may discuss class related information in low level voices. The noise level should never rise to the point that it is hard to hear.
- 2.Remain seated except with teacher permission.
- 3.Come to class prepared and use your class time for learning the subject.
- 4.All equipment in the classroom is off limits except with teacher permission.
- 5.Commit yourself to passing the AP Exam.
- 6.Be respectful to others at all times, especially to guests and visitors.

