

ATYP AP Computer Science

Spring 2008

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Text: *Java Concepts, Cay Horstmann, Wiley 2005*

Goals: Students in this course will learn to

- Design and implement computer-based solutions to problems in a variety of contexts
- Select and develop appropriate algorithms and data structures to solve problems
- Be familiar with the AP subset of the Java programming language and to code fluently with it.
- Read and understand a large program like the AP Case Study Grid World
- Identify the components of the hardware & software of a computer and describe their functions & relationships
- Recognize the social and ethical implications of computer use

Class: *Mondays and Wednesday, 1220 Trimpe*

Grading Policies: The following grading scale will apply - 85-100% is an A, 70 – 85% is a B, etc.

AP Exam: All students are expected to take the AP exam. The fee for the exam is paid for by the ATYP program. The AP exam will be held at Lee Honors College on Tuesday, May 6, 2008 in the morning. Details will be sent home closer to the exam.

Please let me know if you are having any problems with this course. Difficulties are easier dealt with early before they turn into a mountain! Let me know how you are doing! Phone calls are welcome at any time from both students and parents.

Semester 2:

Wk	Due Date	Topics	Reading	Labs/PP	DQ
1	Jan 29 & 31	Final Project		Final Project	
2	Feb 4 & 6	Final Project		Final Project	
3	Feb 11 & 13	Final Project		Final Project	
4	Feb 18 & 20	Computer Hardware	Handout	Inside a Computer	
5	Feb 25 & 27	No School Feb 25 AP Questions Review		Final Projects Due	
6	Mar 3 & 5	Recursion	18.1 – 18.3	Towers of Hanoi	R18.2, R18.3
7	Mar 10 & 12	Recursion	18.4 – 18.5	N Queens	R18.6, R18.8
8	Mar 17 & 19	Sorting Revisited	Review 19.1 – 19.5		
9	Mar 24 & 26	The Game of Nim	Review ch 7	The Game of Nim	Project 7.2
10	Mar 31 & Apr 2	Gravity Worm			
11	Apr 14 & 16	Midterm Exam			
12	Apr 21 & 23	AP Exam Prep			
13	Apr 28 & 30	AP Exam Prep			
14	May 5 & 7	AP Exam Prep			
15	May 12 & 14	Ethics and Society Issues	Supplemental material		
16	May 19 & 21	Final Project			
17	May 26 & 28	GUIs and Applets			
18	Jun 2 & 4	Final Project			