CIS 161 Syllabus
A+ Hardware Support I SA /SL
Fall 2011   course number AA2282/AL2283   5.0 credits

Instructor:	**Adam Foutch**
Office	**Snohomish 127 Phone: 425-640-1333**
Email	**Adam.foutch@edcc.edu**
Office Hours:	**Noon – 2:00 p.m. Snohomish 127**
Required texts:	**"A+ Guide to Managing and Maintaining Your PC"** **by Jean Andrews** **A+ Course Prep Exam Guide Jean Andrews (optional)**
Materials	**one blank CD, one roll of Masking Tape**
Class Meeting	**Tuesday and Thursday 2:20 to 5:00 pm SNH 104**
Prerequisites	**CIS 100 or instructor permission**

Course Description

An introductory course in computer hardware. Students will repair/build computer systems and peripherals in a simulated shop environment. Topics include: system evaluation, classification, software installation, configuration and peer-to-peer networking. Preparation in A+ certification is included. Prerequisite: CIS 100 or instructor permission.

EVALUATION:

The grading will be on a strict percentage basis given the total number of points available for the class. The total number of points may vary slightly. See Grade Table below for the grade point equivalents. There will be no makeup tests or labs given unless pre-arranged. Availability of the room and lab assistants will also determine whether a lab can be made up.

Number	Description	Points Each	Total Points
10	**A+ practice tests**	**10**	**100**
13	**Chapter review Questions**	**10**	**130**
2	**Exams**	**25**	**50**
8	**Work Order Assignments**	**25**	**200**
10	**Labs**	**17.5**	**175**
1	**Class Participation**	**90**	**90**
1	**Lab Final**	**195**	**195**
1	**Final Exam**	**50**	**50**
1	**Syllabus**	**10**	**10**
	Total Points Available:		**1000**

Actual Points May Vary

COURSE OBJECTIVES:

This introductory course will help you to take control of your PC hardware. It will show you how to upgrade, maintain and troubleshoot problems with your PC's hardware. You will also see how to repair your PC by identifying bad components and swapping them with working ones. There are, however, limits in how much you can learn in one quarter. You should not expect to become an expert PC support specialist without further study and practice, practice and more practice.

By the end of the course you should be able to:
- **Describe how hardware components function together to make a computer work.**
- **Describe how software interacts with hardware.**
- **Describe how an operating system and application software interact.**
- **List several ways to protect hardware and software.**
- **Understand and identify PC hardware components.**

- **Assemble and disassemble PC's.**
- **Isolate computer problems and devise a course of action.**
- **Perform meaningful record keeping.**
- **Install hardware components, upgrades and peripheral devices.**
- **Format, configure and troubleshoot hard disks.**
- **Identify various types of hard drives and understand the advantages of each.**
- **Correctly diagnose and solve a user's hardware problem.**
- **Advise a user on upgrading their PC.**
- **Effectively communicate with a frustrated computer user.**
- **Describe the boot process.**
- **Decipher and take appropriate action depending on error messages and symptoms of various hardware problems.**

COLLEGE WIDE ABILITIES :
While achieving the course objectives above, you will be applying and developing the following college wide abilities:

Written and oral communications
Through writing assignments and system documentation
Quantitative methods
Through the study of numbering systems and memory addressing.
Critical thinking and problem solving
Through methods used to diagnose and solve hardware problems.
Group interaction
Through team lab assignments.

SCHOLASTIC INTEGRITY:
Cheating will not be tolerated. If you are caught cheating on a test, you will receive an automatic "0" for that test. If you copy and turn in someone else's Homework assignment, you and the student with the identical paper will have to split the total points possible or earned (whichever is less) for that assignment. If you are caught cheating on more than one assignment or test, you will automatically fail the course.
Please refer to the college student handbook for details

CLASS ATTENDANCE :
This class is designed to allow each team and student to manage in a large part their own time in class. However there is a class participation grade in this class. If you need to miss a class you need to email me and let me know.
Class attendance has direct affect on your participation points

LATE ASSIGNMENTS:
Late assignments will be accepted ONLY at the following class (unless arrangements have been made with the instructor). Up to a 50% point deduction will be taken from the score of late papers.
Homework more than one week late will not be accepted without Instructors permission

MAKE UP TESTS:
There will be no make up test given without prior arrangements being made with the Instructor.
A late point reduction of up to 50% may be assessed at the option of the Instructor.

KEEP YOUR ASSIGNMENTS REMINDER:
If you are in any CIS 2 year degree program, you should keep your work from your classes so you can easily organize it and submit it for your portfolio during your last quarter.

Review Questions: "A+ Guide to Managing and Maintaining Your PC" 7th Edition

Chapter 1	Pgs. 29 – 30 Questions **1, 3, 9, 12, 17, 18, 20**
Chapter 2	Pgs. 75 – 76 Questions **1, 4, 5, 6, 7, 9, 11, 12, 16, 17, 18, 19, 21, 22, 23, 24, 25**
Chapter 3	Pg. 104 Questions **1 through 14, 18 through 20**
Chapter 4	Pg. 169 Questions **1 through 10**
Chapter 5	Pg.233 Questions **1 through 14**
Chapter 7	Pg. 324 Questions **1 through 17**
Chapter 8	Pg. 387 Questions **1 through 13**
Chapter 10	Pgs. 514 – 515 Questions **1 through 12**
Chapter 11	Pgs. 518 – 519 Questions **1 through 13**
Chapter 12	Pgs. 598 – 599 Questions **1 through 11**

Chapter 13	Pg. 642 Questions **1 through 13**
Chapter 14	Pg. 686 Questions **1 through 12**
Chapter 18	Pg. 876 Questions **1 through 5**

Weekly Schedule

Week	Date	Topics	Work on	Work Due
1	09/20 09/22	**Introductions, Course Overview,** **Safety, Lab rules** **Tools Personal project one** **Motherboard, components, processors, busses** **CMOS Device Drivers** **DEMO CMOS Setup and System Configuration**	**Ch 1 & Ch 2** **Start personal** **project**	
2	09/27 09/29	**The Boot Process** **DEMO: Disassembly and Re-assembly** **LAB 1 PC, Disassembly and Re-assembly** **Components, Sub-systems**	**Ch 3 & 4**	**Review** **Questions** **Ch 1 &2**
3	10/4 10/6	**Power Supplies & Power Protection, UPS** **Preventive Maintenance** **Lab 2 Bootable CD** **DEMO: FDISK**	**Ch 5**	**Review** **Questions** **Ch 3 & 4**
4	10/11 10/13	**Review for Test 1** **Lab 3 FDISK** **TEST 1 (Covers Chapters 1-5 and lecture)** **Installing a Hard \floppy Drive Floppy Drives** **Hard Drives: Overview and Terminology**	**Ch 7** **Ch 8** **Start writing** **assignment**	**Review** **Questions** **Ch 5**
5	10/18 10/20	**Critique Test 1** **Installing a Hard Drive** **Hard Drives: Overview and Terminology,** **LAB 4 Build your own PC** **CD-ROMS: Interface Types, Installing,** **Lab 5 Windows XP Installation**	**Ch 11**	**Review** **Questions** **Ch 7** **Ch 8**
6	10/25 10/27	**Lab 6 2nd drive in XP** **Lab 7 Ghost** **Troubleshooting/Problem-solving** **Lab 8 Windows Seven installation** **memory**	**Ch 12** **Ch 13**	**Review** **Questions** **Ch 11**

7	11/1	Review for Test 2 Lab 9 Ubuntu	Ch 14	Review Questions
	11/3	Resource Conflicts/IRQ Conflicts <u>TEST 2</u> (Covers Chapters 7,8,11-13 and lecture)		Ch 12 Ch 13
8	11/8	Critique Test 2 Serial Devices: Modems, USB Devices	Ch 10	Review Questions Ch 14
	11/10	Lab 10 Troubleshooting 1 Grade Parade		Writing assignment due
9	11/15	Keyboards, Video cards, Monitors, Printers DSL/Cable	Ch 18	Review Questions Ch 10
	11/17	Grade Parade Virus software, firewalls and Spy-ware Buying a new computer Review Lab Final, open lab		Tool Kit due
10	11/22	Lab Final no class Nov. 24 Thanksgiving Holiday	None	Review Questions
	11/24			Ch 18
11	11/29	Critique Lab Final Review for Final Exam		
	12/1	Open Lab Last day of class		
12	12/7	FINAL EXAM, WEDNESDAY 12/7/11 1:30 – 3:20p.m.		

GRADING TABLES:

Percent		Decimal Grade		Letter Grade		Decimal Grade
95 94 93	== =	4.0 3.9 3.8		A	=	4.0 - 3.9
92 91 90	== =	3.7 3.6 3.5		A-	=	3.8 - 3.5
89 88 87	== =	3.4 3.3 3.2		B+	=	3.4 - 3.2
86 85 84	== =	3.1 3.0 2.9		B	=	3.1 - 2.9
83 82 81	== =	2.8 2.7 2.6		B-	=	2.8 - 2.5
80 79 78	== =	2.5 2.4 2.3		C+	=	2.4 - 2.2
77 76 75	== =	2.2 2.1 2.0		C	=	2.1 - 1.9
74 73	== =	1.9 1.8		C-	=	1.8 - 1.5

72		1.7			
71	==	1.6		D+	=	1.4 - 1.2
70	=	1.5			
69		1.4			
68	==	1.3		D	=	1.1- 0.9
67	=	1.2			
66		1.1			
65	=	1.0		D-	=	0.8 - 0.7

If you require an accommodation for a disability, please contact Services for Students with Disabilities, WDY 114, (425) 640-1320.