Empire College
Business – Law – Technology – Medical

CLASS NUMBER AND NAME:	**CS100A/B/C CS120A - Introduction to Computer Hardware**
TOTAL HOURS/ UNITS:	75 HOURS/6.0 UNITS
PREREQUISITES:	none
TEXTS AND MATERIALS:	*A+ Guide to Managing and Maintaining Your PC* Seventh Edition, Jean Andrews, Course Technology 2010 2" Binder, pencils, pens, notebook, and a Computer. 2 different Pens, (Blue or Green or Black, etc. NO RED). Highlighter (your choice of color).
CLASS DESCRIPTION:	A combination of lectures and hands-on exercises to introduce the student to computer systems. The assembly of a personal computer will be emphasized. There will be a discussion of each component, discussion on the use of relevant commands, emergency startup procedures, identifying and configuring hardware components. The characteristics of processor chips and processing speeds, the motherboard – including architecture identification, the installation of a hard drive and troubleshooting non-operation. Student will assemble and disassemble successfully his or her system a minimum of six times.
CLASS OBJECTIVES:	The objectives of this course are to present proper handling procedures, instruct the student in the identification of different types of computer components comprising a personal computer. In this context, various commands, safety procedures, and history will be discussed.
CLASS FORMAT OVERVIEW:	This class is a combination of lecture and lab.
METHODS OF INSTRUCTION:	As lecture and lab are the principal means of instruction, it will be expected that all students will be present every day to take part in class. The mandatory project will consist of a 3-5 minute oral presentation. This presentation will be on a topic agreed upon by instructor and student that is relevant to the information being covered during the course. The student will utilize the **eLibrary** provided by the college as well as other outside sources. Username and passwords to the **eLibrary** will be given during the course.

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ATTENDANCE:

It is expected that each student will be in class when class begins. Should the student arrive more than ten minutes late they should notify the instructor of their presence, the instructor will decide if the student has arrived in time to be counted as present- the instructor's decision is final.

80% attendance is mandatory

It will be the student's responsibility to learn of any assignments given in class when absent.

TESTING:

Four quizzes and four hands-on exams will be given throughout the mod as well as a cumulative final exam and hands-on exam, all quizzes, examinations, exercises and homework must be satisfactorily completed in order to pass the course.

LATE TESTING:

Late testing is only allowed at the instructor's discretion.

GRADING POLICIES:

The grading system is comprised of attendance, assignments, projects, weekly tests and an end-of-module final and will be graded on the following scale:

Homework, tests and final	Maximum Possible
Attendance	85
Homework [5 @ 20 points]	100
Project	65
Weekly Exams [4 @ 75 points]	300
Weekly hands on [4 @ 25 points]	100
Comprehensive final-written	100
Comprehensive final-hands on	100
Module total	850

Combined grades from attendance, assignments, weekly tests and end-of-module final will be graded on the following scale:

765 to 850	(90 – 100%)	= A
680 to 764	(80 – 89%)	= B
595 to 679	(70 – 79%)	= C
510 to 594	(60 – 69%)	= D
less than 509		= F

ANTICIPATED LEARNING OUTCOMES:

Upon completing this course, the student will have:

1. A working knowledge of PC components.
2. The ability to identify Motherboards by their architecture.
3. The ability to identify different types Memory.
4. A working knowledge of Processors.
5. A working knowledge of Hard Drives.
6. Experience in the assembly of a computer using proper handling procedures and safety precautions.
7. The ability to explain the computer boot process using the proper terminology.

Earned a passing grade in the course by achieving a D or better.

Syllabus Addendum

CS100A/B/C CS120A-Introduction to Computer Hardware

Week	Daytime Schedule	Evening Schedule Six-Week Module	Evening Schedule Three-Week Module
One	1. Identify and inventory computer parts. 2. Review Chapter 1 (Introducing Hardware). 3. Review Chapter 4 (Form Factors, Power Supplies and Working Inside a Computer). 4. Test Power systems 5. Electricity – definition, (computer related) uses, how to measure 6. Step-by-step assembly of student's computer. 7. Weekly Written and Hands-On Exam and Review. 8. Homework – Handout – Due Wednesday		
Two	1. Review Chapter 2 (Introducing Operating Systems). 2. Review Chapter 3 (Working with People in a Technical World). 3. Install Windows 2000 Professional 4. Disassemble and assemble student's computer one or more times. 5. Weekly Written and Hands-On Exam and Review. Homework - Handout – Due Wednesday		

Three	1. Review Chapter 8 (Supporting Hard Drives) 2. Review Chapter 10 (Multimedia Devices and Mass Storage) 3. Disassemble and assemble student's computer one or more times. 4. Weekly Written and Hands-On Exam and Review. 5. Homework – Handout – Due Wednesday		
Four	1. Review Chapter 5 (All About Motherboards). 2. Review Chapter 6 (Supporting Processors) 3. Disassemble and assemble student's computer one or more times. 4. Weekly Written and Hands-On Exam and Review. 5. Install Windows XP Professional Homework – Handout – Due Wednesday		
Five	1. Review Chapter 7 (Upgrading Memory) 2. Review Chapter 9 (Supporting I/O Devices) 3. Presentations on Wednesday, Thursday 4. Module Final and review. 5. Hands on Final. Homework – Handout – Due Wednesday		