

I. COURSE DESCRIPTION:

This lab oriented course will develop the students skills in assembling, configuring and troubleshooting a typical Personal Computer. Students will install and set-up various pieces of hardware typical in a PC, in both the DOS and Windows environments.

Emphasis is placed on the hands-on skills.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Understand and accurately discuss the hardware and software components of a personal computer.

Potential Elements of the Performance:

- Describe and understand the block diagram of a typical PC.
- Describe, understand and modify the system BIOS.
- Describe details of hardware components.

2. Install and make operational a typical Desktop PC.

Potential Elements of the Performance:

- Demonstrate the ability to install and make operational, basic components of a PC.
- Demonstrate the ability to install an operating system (DOS and Windows'95).
- Demonstrate the ability to install and make operational, additional components of a PC such as CD ROM's, Sound Cards, Network Cards etc.

3. Troubleshoot typical PC problems using available diagnostic tools.

Potential Elements of the Performance:

- Demonstrate logical troubleshooting process to diagnose and correct system faults.
- Correctly implement available diagnostic tools.

4. Accurately select and install PC upgrades

Potential Elements of the Performance:

- Discuss and recommend system upgrades.
- Demonstrate the installation of hardware and software upgrades.

III. TOPICS:

1. Personal Computer Overview (Block Diagram)
2. Hardware / Software Overview
3. Hardware Details
4. Operating Systems Installation and Configuration
5. Maintenance and Upgrading

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Textbook - Assembling and Repairing Personal Computers by Dan L. Beeson
- 5 - 3.5" 1.44 MB Floppy Disks
- Basic Hand Tools (Needle Nose Pliers, #2 Phillips Screwdrivers)

V. EVALUATION PROCESS/GRADING SYSTEM:

The final grade will be derived as follows;

- 40% - Theory Tests (2 Tests and various quizzes)
- 50% - Practical (2 Practical Test and In-Process Lab Evaluation)
- 10% - Subjective Evaluation

*** The subjective evaluation is based on attendance, class participation, and professional work ethic as per industry expectations.**

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies & Procedures Manual – Deferred Grades and Make-up</i>).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

VI. SPECIAL NOTES:

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

Attendance to lab activities is compulsory, unless discussed with the instructor in advance of the absence. Your attendance and final grade are directly related.

Laboratory Reports shall be subject to the handout given at the start of the semester. All Lab Reports are due at the start of the following weeks Lab Class unless otherwise stipulated by the instructor. A **penalty of 10% per day** will be assessed for late submissions (Weekends included).

All other required submissions will be assessed a late penalty of **5% per day** (Weekends included).

Any student that is absent for any test, will be required to provide a doctors' note immediately upon returning. Failing to do so will result in a grade of 0% being assigned to the missed test.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.