Bergen Community College Assessment Project

Department/Program: Computer Science

Submitted by Professor Marybeth Klein, Academic Department Chair Fall 2011 Report

Goal: Students in the General Education course CIS-158, Introduction to Computer Science, will demonstrate satisfactory knowledge of the memory component of a computer.

Description: These courses are taught by adjuncts as well as full-time faculty.

A standard quiz was created and used for the Spring 2011 semester, the same quiz was given at the end of the Fall 2011 semester.

Data Collected:

Spring 2011

Pass rate for a section of the final exam Spring 2011, 10 sections of the course participated (4 online, 6 face to face).

The satisfactory pass rate was less than the 60% anticipated: 36.4%

The passing rate was less than the 70% anticipated: 64.8%

Fall 2011

Pass rate for a section of the final exam Fall 2011, 11 sections of the course participated (4 online, 7 face to face).

The satisfactory pass rate was less than the 60% anticipated: 49.4% Improvement

The passing rate was less than the 70% anticipated: 68.45% Improvement

Measures: A component (memory) of the final exam (questions included below) will be used to access the teaching/learning of the topic.It is expected that 60% of the students will receive a satisfactory grade (70 and above) and 75% of the students will receive a passing grade (greater than 60, 'D').

Results:	The outcome was:	Partially met
	Percentage met:	49.4 satisfactory, 68.45 passing
	Were these results used to make improvements to the program/department?	Yes

Analysis: The topic chosen (types/uses of computer memory) still needs more reinforcement, the outline and meetings that covered this assessment was helpful but more focus is needed on these fundamentals of Computer Science

Recommendations:

A continued support and discussion for all faculty members teaching this course. Faculty who continue to have poor results will have to stop teaching the course.

Improvements:

1- The outline and discussion prior to the Fall 2012 semester made a difference as shown by the overall outcomes.

2- The direction of the course expectations will be an ongoing discussion in our department meetings where both full-time and part-time faculty attend, those not in attendance will be included electronically or in a separate meeting.

The following was given to every faculty member prior to the Fall 2011 semester: we met and discussed each item.

BERGEN COMMUNITY COLLEGE
COMPUTER SCIENCE DEPARTMENT

CIS-158 Introduction to Computer Science

More emphasis must be placed on both Components of the Computer and Computer Memory and storage

Components of the computer

This is one of the early semester topics but as you introduce other topics point out the components or quiz the students on what components are necessary

Computer Memory

- Stress that the smallest addressable unit of storage is the byte (although you can access bits using an offset, a bit cannot be directly accessed using an address)
- You must teach the different types of memory and what each is used for
- Cover the simple memories used during program execution: RAM, cache, registers
- Have a discussion about the difference between memory and storage

Once you have taught each of these topics, be sure to reinforce the elements at every opportunity throughout the semester

Programming Classes

Programming assignments should not just be the problems at the end of the chapter; these problems should be used for self study

There should be a minimum of 4 programs (each based on a new course topic) assigned during the semester.

All Classes

Exams

- are to be based on the material that is covered in the readings, lecture, and labs
- should be challenging, the questions should make the students think not just remember
- should not be open book; If you want to give the students an extra "edge", allow them to use a distributed 3 x 5 index card to write anything that they think will help them on the exam

Reminder: Make sure that students are not using cell phones in the classroom

Do not allow students to use the systems unless you have assigned them work

1 Marks: 2

The acronym _____ is frequently used to refer to the memory unit of a computer.

Choose one answer.

- a. MDR
- b. ROM
- c. RAM
- d. CD

2 Marks: 2

The smallest addressable unit of storage is called

Choose one answer.

- a. bit
- b. location
- c. Byte
- d. Random

3 Marks: 2

A register is

Choose one answer.

- a. High speed memory
- b. Used to hold constant values
- c. A type of system software
- d. Only available on some systems

4 Marks: 2

Types of ROM are

Choose one answer.

- a. PROM, DROM, EEPROM
- b. EPROM, EEPROM, PROM
- c. EAPROM, EEPROM, DROM
- d. EPROM, PROM, PEROM

5 Marks: 2

The concept that states: "When the computer uses something, it will probably use it again" is called

Choose one answer.

- a. The eighty twenty principle
- b. Principle of Locality
- c. Principle of Reuse
- d. Principle of Looping
- e. The Recycle Principle

6 Marks: 2

Computer Memory differs from secondary storage in that

Choose one answer.

- a. secondary storage is permanent
- b. memory is temporary
- c. secondary storage can reside outside of the system
- d. memory is faster than secondary storage
- e. memory contains adressable units
- f. all of the above
- g. a, b, and d only
- h. a, c, and d only
- i. a, b, and c only

- j. a, b, d, and e only
- k. a, b, c, and d only

7 Marks: 2

The area of memory that is used to speed up access time during processing is called

Choose one answer.

- a. register
- b. EPROM
- c. RAM
- d. cache
- e. virtual memory
- f. main memory

8 Marks: 2

Data in _____is erased when the system is powered down.

Choose one answer.

- a. RAM
- b. ROM
- c. DROM
- d. Floppy Disk

9 Marks: 2

An address is used to access

Choose one answer.

- a. a memory location
- b. a website
- c. a device
- d. a file
- e. all of the above
- f. a and b only
- g. a and c only
- h. b and d only
- i. a and d only

10 Marks: 2

An example of secondary storage would be

Choose one answer.

- a. The computer screen
- b. A disk
- c. The printer
- d. Keyboard