DATE OF LAST REVIEW: 02/2013
CIP CODE: 15.1201
SEMESTER: Departmental Syllabus
COURSE TITLE: Computer Systems Overview
COURSE NUMBER: CIST-0170
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: 913-334-1100
EMAIL: KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE (S): CIST-0101 Computer Concepts and Applications

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com/, for the required texts for your particular class.

COURSE DESCRIPTION: This course explores computers examining such topics as the history of computers, computer applications, computer design, program translation, hardware, theory of computation, artificial intelligence, and how computers fit into society. Students will complete lab assignments that are designed to enhance the topics covered in the course modules.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
I. The history of computers.
   A. The historical steps in the evolution of computers.
II. Local and global computer applications.
   1. Local applications:
      1. a word processor,
      2. a spreadsheet,
      3. a graphics processor
      4. a page layout program.
2. Global applications:
   1. E-mail,
   2. Usenet News,

III. Web page design.
   A. The evolution of the User Interface.
   B. The guidelines for system design.
   C. The anatomy of a web page.
   D. Basic Scripting within web pages.

IV. The program translation process.
   A. Binary numbers and how they are utilized by computers.
   B. Parse trees.

V. Basic electronic gates used to construct computer hardware.
   A. AND, OR and NOT gates.
   B. Truth tables.

VI. The theory behind computation.
   A. Viewing a program as an abstract machine.
   B. Abstract machines
      1. as black boxes
      2. as clear boxes.

VII. Artificial intelligence.
   A. Expert System Builders.
   B. AI programs and how they are designed to resemble human behavior.

VIII. How computers fit into society.
   A. The major trends that computers may experience in the future.
   B. The effect these trends may have on society.
   C. The World Wide Web has influenced social structures in terms of being a tool and a medium.

EXPECTED LEARNER OUTCOMES:
A. Upon completion of the course, the student will have a thorough understanding of the history of computers.
B. Upon completion of the course, the student will have an understanding as well as hands-on experience with both local and global computer applications.
C. Upon completion of the course, the student will be able to design a web page using HTML.
D. Upon completion of the course, the student will have a thorough understanding of the program translation process.
E. Upon completion of the course, the student will be able to identify basic electronic gates used to construct computer hardware.
F. Upon completion of the course, the student will have an understanding of the theory behind computation.
G. Upon completion of the course, the student will understand the different aspects of artificial intelligence.
H. Upon completion of the course, the student will have a better understanding as to how computers fit into society.

COURSE COMPETENCIES:
Upon completion of the course, the student will have a thorough understanding of the history of computers.
1. The student will be able to identify the historical steps in the evolution of computers.

Upon completion of the course, the student will have an understanding as well as hands-on experience with both local and global computer applications.
2. The student will develop expertise with four local applications: a word processor, a spreadsheet, a graphics processor and a page layout program.
3. The student will develop expertise with three global applications: E-mail, Usenet News, and the World Wide Web.

Upon completion of the course, the student will be able to design a web page.
4. The student will be able to identify the evolution of the User Interface.
5. The student will be able to identify the guidelines for system design.
6. The student will be able to identify the anatomy of a web page.
7. The student will be able to use basic JavaScript within his/her web page project.

Upon completion of the course, the student will have a thorough understanding of the program translation process.

8. The student will work with binary numbers in order to gain an appreciation of how they are utilized by computers.
9. The student will be able to construct parse trees.

Upon completion of the course, the student will be able to identify basic electronic gates used to construct computer hardware.

10. The student will be able to identify AND, OR and NOT gates.
11. The student will be able to construct and complete truth tables.
12. The student will be able to understand basic Boolean Algebra symbols.

Upon completion of the course, the student will have an understanding of the theory behind computation.

13. The student will be able to view a program as an abstract machine.
14. The student will be able to look at abstract machines in two ways, as black boxes and as clear boxes.

Upon completion of the course, the student will understand the different aspects of artificial intelligence.

15. The student will work with Expert System Builders.
16. The student will have an understanding of AI programs and how they are designed to resemble human behavior.
17. The student will have an understanding of how AI programs are being designed for future applications and purposes.

Upon completion of the course, the student will have a better understanding as to how computers fit into society.

18. The student will be able to identify the major trends that computers may experience in the future.
19. The student will be able to discuss the effect these trends may have on society.
20. The student will examine how the World Wide Web has influenced social structures in terms of being a tool and a medium.
21. The student will be able to discuss the ethics of the proper use of personal computer information.

ASSESSMENT OF LEARNER OUTCOMES:
Assessment methods may include, but are not limited to, the following: Homework, Assignments, Quizzes, Class Participation, Chapter Tests, and Final Exam. The grading scale and the process for calculating the course grades are to be determined by the individual instructors. This information will be included in each instructor’s syllabus.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

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