COMPUTERS AND PROGRAMMING

3-0-3

Date: 11/29/11

COURSE NUMBER: CPT 114

PREREQUISITE(S):   ENG 032, MAT 032, RDG 032

CO-REQUISITE(S):   None

COURSE DESCRIPTIONS   This course introduces computer concepts and programming. Topics include basic concepts of computer architecture, files, memory, and input/output devices, storage devices, printers, binary and hexadecimal numbering systems, Internet concepts including HTML, programming concepts, operating systems, and future/social issues.

TEXTBOOK(S):   Parsons, June Jamrich and Dan Oja, <u>Computer Concepts 2011</u>, Course Technology 2011.

REFERENCE(S):   None

OTHER REQUIRED MATERIALS, TOOLS, AND EQUIPMENT: Computer with Internet access, Internet Explorer 5.0 or higher or other current browser, Java, word processing software (must be able to save Word format), and anti-virus software.

METHOD OF INSTRUCTION: Audio/Video Lecture, Discussion Questions, Group Projects

GRADING SYSTEM:

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
60	-	69	=	D
Below	-	60	=	F

Tests (4)	=	45%
Quizzes	=	15%
Discussion Questions & Assignments	=	15%
Research Paper	=	5%
PC Purchase Project	=	10%
Final Exam	=	10%
	=	100%

CONFIDENTIALITY: All students' e-mail addresses may be available to other students in the class. Although some assignments in an online course may encourage or require peer communication, the instructor will make every effort to protect the confidentiality of any personal communication (for example, grades). However, you should recognize that e-mail and other electronic media are not secure; there is no guarantee of the privacy of your e-mail or other personal information.

APPROPRIATE ONLINE BEHAVIOR: The use of Spartanburg Community College's website, e-mail service or course management software for creation and/or distribution of material not pertaining to course participation is prohibited and is grounds for dismissal according to College policy under "disruptive behavior." Such actions, include, but are not limited to:

- Inappropriate use of email and discussion boards for:
  - ✓ Harassment
  - ✓ Unlawful solicitation
  - ✓ "Spamming"
  - ✓ "Flaming"
- Use of online editing tools within the course management software to:
  - ✓ Create offensive material
  - ✓ Link to inappropriate materials

ATTENDANCE POLICY: An electronic e-mail is required from each student to the instructor by the end of the drop/add period. At this time the Instructor will drop the student from the course if it is not received.

Instructors maintain attendance records. However, it is the student's responsibility to withdraw from a course. A student who stops attending the online class and fails to initiate a withdrawal will remain on the class roster. *With this in mind, for every assignment, test or exam not completed while still enrolled in the course the student will receive a grade of zero and the final course grade will be calculated accordingly.*

Withdrawal Policy: During the first 75% of the course, a student may initiate withdrawal and receive a grade of W. A student cannot initiate a withdrawal during the last 25% of the course. Extenuating circumstances require documentation and approval by the appropriate department head and academic dean. **The last day to withdraw from a full-term course for the Fall Semester is October 29, 2010.**

ACADEMIC CONDUCT:

ACADEMIC DISHONESTY: Students are expected to uphold the integrity of the College's standard of conduct, specifically in regards to academic honesty. All forms of academic dishonesty including, but not limited to, cheating on assignments/tests, plagiarism, collusion, and falsification of information will call for disciplinary action. Disciplinary action imposed may include one or more of the following: written reprimand, loss of credit for assignment/test, termination from course, and probation, suspension, or expulsion from the College. For further explanation of this and other conduct codes, please refer to the Student Handbook.

CLASS/LAB PROCEDURES:

This class is a combination of computer theory and applications. The textbooks are learning resources. It is the responsibility of the student to read and follow each assigned chapter, reference the material available on the web site, post answers to the discussion topics, utilize any online reference materials available, submit required assignments and contact the instructor with any questions or concerns.

If additional assistance is needed to complete projects, The Learning Center (TLC) is located in the East Building in room E-2 and E-5. Please check the SCC website at www.sccsc.edu/SDS/ to access the hours of availability. Keep in mind that the TLC is NOT a tutorial center. If you are having extreme difficulties, contact your instructor

directly.

<u>Discussion Questions:</u>
Discussion questions will be posted on the Discussion Board. Be sure to check the Weekly Schedule and calendar to check availability and due dates. These are included with your assignments to comprise 15% of your final grade.

<u>Tests</u>:   All tests will be taken on Blackboard. Tests will be released over a 2-day period with a time limit of 40 minutes with 50 multiple choice questions. Please do not wait until the last minute of the second day to take the test. Always plan to take the test the first day in case there is a problem. Be sure to check your Weekly Schedule for test dates/times.

If any test is not taken during the specified time frame, the test grade will be recorded as a zero. ***No makeup tests will be allowed, except in extenuating circumstances as determined by the instructor***. If the student notifies the Instructor in advance, arrangements may be made to take an early test.

<u>Quizzes:</u> *There will be a quiz for each chapter (Chapters 1-12) administered on Blackboard. These quizzes will consist of ten (10) True or False questions over the chapter material. Students have 10 minutes to take the quiz.* **The quizzes cannot be made up***; however the two lowest quiz grades will be dropped.   See your Weekly Schedule for quiz dates/times.*

<u>Additional Assignments</u>: All assignments must be completed and uploaded to the Assignment Drop Box in Blackboard according to the Weekly Schedule. Additional instructions will be included in the assignment handouts which will be available under Additional Handouts on the Home Page of this website.   ***No homework will be accepted late***; the Assignment Drop Box will not allow late submissions.   Please do not email assignments.

<u>PC Purchase Project:</u> This project will be one of two group projects during this course. Additional information will become available later in the semester. This project is due at the end of the semester, as noted on the Weekly Schedule.

Research Paper: Choose a career in computers/information technology. Write a 3-5 page research paper about the career including job duties, job requirements (include level of education), and average salaries. Then discuss why you chose that career to research and how you will go about preparing yourself for that career. Paper should be uploaded to the Assignment Drop Box and is due according to the Weekly Schedule.

Final Exam: There will be a cumulative final exam at the end of the semester. The Final Exam counts 10% of your overall grade.   Everyone is required to take the Final Exam.

ACCOMMODATIONS: Students who need special accommodations in this class because of a documented disability should notify Student Disability Services by calling (864) 592-4818, toll-free 1-800-922-3679; via email through the SCC web site at www.sccsc.edu/resources/disabilities; or by visiting the office located in the East Building Room 30-B on the SCC Central campus. Contacting Student Disability Services early in the semester gives the College an opportunity to provide necessary support services and appropriate accommodations.

Program Department Chair

Marcia Schenck
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COURSE OUTCOMES & OBJECTIVES: Upon satisfactory completion of this course, the student will be able to:

I.   Explain the importance of computers
1.   Describe different categories of computers
2.   Classify the basic components of computer hardware
3.   Classify computer software
4.   Describe the Internet and Web fundamentals

II.   Identify milestones in the evolution of computers
1.   Explain the computer eras
2.   Describe changes in the IT industry and product development

3. Identify IT careers
4. Identify the rules of professional ethics

III. Categorize Computer Software
1. Identify the main functions of system software
2. Become familiar with versions of Microsoft Windows, Linux and the MAC
3. Identify the role of application software
4. Describe task-oriented software

IV. Classify the basic functions of a computer
1. Describe the Central Processing Unit
2. Explain how memory is used
3. Define data representation
4. Define input, output and storage
5. Explain the differences among floppy disks, hard drives, CD-R, CD-RW, USB, ZIP disk and DVD

V. Define different numbering systems
1. Obtain a basic understanding of the decimal, binary, hexadecimal and octal number systems
2. Exhibit the ability to convert from one numbering system to another

VI. Understand a Selection of Internet Technologies
1. Describe the Internet infrastructure
2. Explain the various Internet connection options
3. Exhibit basic Web technologies
4. Create and publish a web page
5. Identify E-Commerce basics
6. Work with digital media such as graphics, audio and video

VII. Demonstrate basic file management techniques
1. Become familiar with file naming conventions
2. Comprehend the concepts of file location and paths

VIII. Discuss computer security and privacy
1. Research computer crimes
2. Describe computer forensics
3. Classify and define a variety of computer infestations
4. Develop a disaster recovery plan

IX. Communicate Database Concepts
1. Explain the basics of database structure
2. Identify database management and design
3. Explain SQL

X. Discuss System Analysis and Design
    1. Explain the concept of system analysis and design
    2. Describe the phases of the SDLC
    3. Identify management information systems, decision support systems, and expert systems.

XI. Discuss the development of Programming Languages
    1. Differentiate between procedural and object-oriented programming
    2. Describe the programming process
    3. Classify different levels of languages

XII. Define Large-scale Computing such as Enterprise Systems and High-Performance Systems

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