COURSE OUTLINE
Division of Business and Technology

Course Number: IST 101   **Course Title: Computer Concepts with Applications**

Credits: 3   **Hours: 2 Lecture   2 Lab**

Catalog description: Addresses hardware, software, the Internet, multimedia, and security and ethics issues. Lab includes exposure to Windows as well as word processing, spreadsheet, and presentation applications.

Introduction to the course: A course designed to help students become computer users, information literate and knowledgeable about significant computer concepts. Topics include understanding computer hardware and software, using data, planning for a career in information technology, demonstrating how ethical issues affect our society, and recognizing a network and its various functions. The course is designed to develop an in-depth understanding of why computers are essential components in the business world and society, with a focus on the computer as a valuable productivity tool. In addition, students are expected to identify the need for information, access information, evaluate information, and use the information ethically and legally for a specific purpose. Students will deliver an oral presentation using popular presentation software. In the lab, students learn to use the common features of the Microsoft Office Suite.

Prerequisites: reading proficiency and basic keyboarding skills
Corequisite: MAT 034

Last revised: August 2014

Course Coordinator: Terry Voldase, voldaset@mccc.edu, 609-570-3481, Office: BS125

Required texts/materials:

IST101 Bundle sold only in MCCC bookstore:

1. *Lecture Textbook*: Custom Edition for MCCC of Technology in Action, Complete, Pearson

2. *Lab Textbook*: Custom Edition for MCCC of GO! With Office 2013, Pearson

3. *Access code* for MYITLAB (Pearson, www.myitlab.com)

Course goals:

At the completion of the course, the student will be able to:

1. Understand various concepts of computers

   a. Discuss why computers are essential components in the business world and society in general.

   b. Describe computer terminology and nomenclature, with respect to personal computer hardware, software, data, networking, careers.

   c. Differentiate the various functions of computer hardware.

2. Use application software for academic purposes

   a. Manage data on a flash drive for efficient future reference.

   b. Use word processing, spreadsheet, and presentation software to generate documents.

   c. Demonstrate competence with advanced features of word processing, spreadsheet, and presentation software.

3. Demonstrate knowledge of information literacy

   a. Assemble information from library databases and the Web in order to complete a research project on a current topic in information technology.

   b. Evaluate sources of information for authority, reliability, currency, bias

   c. Defend a position either for or against a current ethical issue related to information technology.

   d. Compose and present information in an ethical and legal manner.

General Education Knowledge Goals

Goal 1. Communication. Students will communicate effectively in both speech and writing.

Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Goal 9. Ethical Reasoning and Action. Students will understand ethical issues and situations.

MCCC Core Skills

Goal A. Written and Oral Communication in English. Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.

Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.

Goal C. Ethical Decision-Making. Students will recognize, analyze and assess ethical issues and situations.

Goal D. Information Literacy. Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.

Units of study in detail.

Course Introduction and the Web
The student will be able to

- Communicate effectively with other classmates and with professor. **(Course Competencies 1; Gen Ed Goal 1; Core Skills A)**
- Understand course objectives and course requirements.
- Discuss why computers are essential components in the business world and society in general. **(Course Competencies 1; Gen Ed Goal 1; Core Skills A)**
- Demonstrate knowledge of popular web search engine. **(Course Competencies 5; Gen Ed Goal 1,4; Core Skills E)**
- Manage data on a flash drive for efficient future reference. **(Course Competencies 4; Gen Ed Goal 1,4; Core Skills E)**

Hardware and Word Processing
The student will be able to

- Describe computer terminology and nomenclature, with respect to personal computer hardware. **(Course Competencies 2; Gen Ed Goal 1,4; Core Skills A)**

- Differentiate the various functions of computer hardware. **(Course Competencies 3; Gen Ed Goal 1,4; Core Skills A)**

- Use word processing software to generate documents and demonstrate competence with advanced features of word processing software. **(Course Competencies 5,6; Gen Ed Goal 1,4; Core Skills E)**

- Defend a position either for or against a current ethical issue related to information technology. **(Course Competencies 9; Gen Ed Goal 1,9; Core Skills C)**

Software, Ethics, and Spreadsheets
The student will be able to

- Describe computer terminology and nomenclature, with respect to personal computer software. **(Course Competencies 2; Gen Ed Goal 1,4; Core Skills A)**

- Use spreadsheet software to generate documents and demonstrate competence with advanced features of spreadsheet software. **(Course Competencies 5,6; Gen Ed Goal 1,4; Core Skills E)**

- Defend a position either for or against a current ethical issue related to information technology. **(Course Competencies 9; Gen Ed Goal 1,9; Core Skills C)**

Data, Networking, Careers, and PowerPoint
The student will be able to

- Describe computer terminology and nomenclature, with respect to personal computer data, networking, and careers. **(Course Competencies 2; Gen Ed Goal 1,4; Core Skills A)**

- Use presentation software to generate documents and demonstrate competence with advanced features of presentation software. **(Course Competencies 5,6; Gen Ed Goal 1,4; Core Skills E)**

- Defend a position either for or against a current ethical issue related to information technology. **(Course Competencies 9; Gen Ed Goal 1,9; Core Skills C)**

Information Literacy

The student will be able to

1. Assemble information from library databases and the Web in order to complete a research project on a current topic in information technology. **(Course Competencies 7; Gen Ed Goal 1,4; Core Skills A,B,D,E)**

2. Evaluate sources of information for authority, reliability, currency, bias **(Course Competencies 8; Gen Ed Goal 1,4; Core Skills B,D)**

3. Defend a position either for or against a current ethical issue related to information technology. **(Course Competencies 9; Gen Ed Goal 1,9; Core Skills B,C,D)**

4. Compose and present information in an ethical and legal manner. **(Course Competencies 10; Gen Ed Goal 1,4; Core Skills B,C,D)**

Course Schedule

At the end of the course you will have a greater understanding of information technology, computer hardware and software, digital data, networking, the internet, and ethical issues concerning information technology. They will be able to articulate researched points concerning an ethical issue in IT. They will also be able to manipulate Microsoft Word, Excel, and PowerPoint with basic functions. Visit www.mccc.edu/info_tech and click on "IST101 students" to find more course details.

The following topics will be covered in lectures and laboratory assignments.

Week	Lecture	Lab
1.	Introductions	Lab 1 – MYITLAB, email
2.	Ch. 1 – Using Technology to change the world	Lab 2 – Pre-test
3.	Ch. 2 – Looking at Computers: Understanding the Parts	Lab 3 - Creating documents with MS Word 2010 *Word Ch.1*
4.	Ch. 3 – Understanding and Assessing Hardware	Lab 4 – File Management, creating documents with MS Word 2010 *Word Ch. 1*
5.	Ch. 4 – Under the Hood	Lab 5 – Using tables and templates to create resumes *Word Ch. 2*
6.	Ch. 5 – Digital Lifestyle Ch. 6 - IT Ethics	Lab 6 – Creating research papers *Word Ch. 3*
7.	Ch. 7 – Application Software	**MID-TERM EXAM** Lab 8 – Creating a worksheet and charting data *Excel Ch . 1*

8.	Ch. 11 - Information Literacy, Evaluating Web Sites *http://lib.nmsu.edu/instruction/evalcrit.html* **Assign topics** **Assign Homework 1**	Lab 7 - Information Literacy **Collect Homework 1** **Assign Homework 2**
9.	Ch. 8 – Using System Software	Lab 9 – Using functions, creating tables*Exc*
10.	Ch. 11 - Information Literacy, APA Formatting *http://owl.english.purdue.edu/owl/* **Collect Homework 2** **Assign Homework 3**	Lab 10 – Analyzing data with pie charts*Exc*
11.	Ch. 9 –Databases and Information Systems	Lab 11 – Getting started with PowerPoint*PF*
12.	Ch. 10 – Using the Internet **Collect Homework 3**	Lab 12 – Formatting PowerPoint presentations ***PPT Ch. 2***
13.	Ch. 12 – Networking	Lab 13 – Enhancing a presentation with animation ***PPT Ch. 3***
14.	Ch. 13 – Careers in IT	
15.	**Final Projects Due**	**FINAL EXAM**

TEACHING METHODS

1. <u>Lectures/Demonstrations</u>: Important material from the text and outside sources will be covered in class. Students should plan to take careful notes as not all material can be found in the texts or readings. Discussion is encouraged, as is student-procured, outside material relevant to topics being covered.
2. <u>Lab Assignments</u>: Concepts Reviews, Skills Reviews, Independent Challenges and other projects and readings will be periodically assigned to help support and supplement material found in the lessons. These assignments may require the use of various software applications.
3. <u>Quizzes</u>: Occasional scheduled and/or unscheduled quizzes will be given to help ensure students stay up with assigned material. Application skills will be tested through use of My IT Lab.
4. <u>Exams</u>: Exams will be given. The exams will be closed book/notes and will test assigned readings and material discussed in class. The instructor will discuss in advance details of all exams and tests.
5. <u>Internet Support</u>: Textbook Web pages augment classroom learning.
6. <u>Oral Presentation</u>: Students will be required to make an oral presentation in class on an assigned topic.

Evaluation of student learning:

30% final exams (100 objective-based concept questions and 40 activity-based application exercises)

30% Lab assignments (you will complete activity-based lab assignments for each unit of Word, Excel, and PowerPoint)

20% quizzes (you will have one 20-question quiz for each unit of information technology concepts)

10% Final Project (you will research a topic, write a paper in APA format, and present the findings using PowerPoint)

10% Homework and Midterm Exams (Homework assignments prepare you for the final project and the midterm prepares you for the final exam)

Lab assignments, quizzes, homework assignments and exams are assigned and submitted in the course management tool, MYITLAB. Access to MYITLAB is purchased with textbooks and is essential to course completion.

The final project requires a student to select from a list of significant issues in Information Technology, research the topic, write a paper using APA formatting, and present the findings to the class. The project is graded using a rubric on the use of presentation software, the ethical and legal use of information, and paper content, composition, and formatting.

Grades will be assigned in accordance with the following:

Letter grade	Nominal %	QPA quality points
A	93-100	4.0
A-	90-92	3.7
B+	87-89	3.4
B	83-86	3.0
B-	80-82	2.7
C+	77-79	2.4
C	70-76	2.0
D	60-69	1.0
F	0-59	0.0
S	70-100	NA
NC	0-69	NA

Attendance Policy:

It is expected that students attend and be <u>on time</u> for all class meetings; attendance is taken at the beginning of every class. 3 lates count as an absence. Students are responsible for acquiring content that is covered, announcements made, and materials that may have been distributed in class if they are late or absent. Extra credit points will be added to your final grade at the end of the semester for attending 90% or more of scheduled class meetings.

Assignment Policy:

All assignments are expected to be handed in on the due date at the beginning of class. 10% will be deducted each week for assignments turned in late.

Academic Integrity Statement

Academic integrity is important to student success. Students who submit the work of another student will be penalized. Be mindful that MYITLAB indicates to the instructor when a student has uploaded the work of another student. According to the student handbook, "A student who, a) knowingly represents work of others as his/her own; b) uses or obtains unauthorized assistance in the execution of any academic work; or c) gives fraudulent assistance to another student is guilty of cheating. Violators will be penalized."

Classroom Conduct Statement

The college welcomes all students into an environment that creates a sense of community and pride and respect; we are all here to work cooperatively and to learn together.

Students must follow ordinary rules of courtesy during class sessions. Engaging in private conversations, texting, answering a cell phone, sleeping, or other disruptive behavior during class time will not be tolerated.

Reasonable Accommodations for Students with Documented Disabilities

Mercer County Community College is in compliance with both the ADA and section 504 of the Rehabilitation Act. If you have, or believe you have, a differing ability that is protected under the law please contact Arlene Stinson in LB 216, call 570-3525, or email at stinsona@mccc.edu for information regarding support services.

Accelerated option

This course is designed to be useful for students with moderate computer competence. There is provision in this course, however, for students who demonstrate an above average level of computer / information technology competence to be given credit for their experience.

If a student takes both pre-test exams, proctored by the course instructor, and passes each with a 90% or better score in the first 2 weeks of the semester, they have demonstrated above average computer / information technology competence. Students meeting these criteria are entitled to the following course grading:

        80% Pre-Tests (100 objective-based concept questions and 40 activity-based application exercises)

        20% Final Project (you will research a topic, write a paper in APA format, and present the findings using PowerPoint)

Check the website www.mccc.edu/info_tech for pre-test topics.