MET-CS101 B1: Computers and their Applications
Boston University Metropolitan College Computer Science Department
On Campus Course

INSTRUCTOR:

Claritza N. Abreu, MSCIS
Office Hours: By appointment
E-mail: @bu.edu

CLASS MEETINGS:

Tue/Thurs 6:00pm to 9:30pm
Location: MCS B25
7/3/2018 to 8/9/2018
Summer 2

REQUIRED TEXT:

Technology In Action Complete, 15th Edition
By Alan Evans, Kendall Martin, Mary Anne Poatsy
Published by Pearson Published Date: Jan 23, 2018

ISB#: 0134837878 / 9780134837871

Note: You may buy a previous edition of the book or a used version of the book (I will say more about this during the first class). This class will not have a Pearson MyIT Lab component -- no access code will be required.

COURSE DESCRIPTION :
This course is an overview of modern computer information systems. Concepts include: terminology; computer hardware, software, and networks; the impact of computers on society; ethical issues in computing; trends in information processing.

No prior knowledge, experience, or pre-requisites are required. No matter your background or skill level, you will come away from this class with some additional knowledge and concept familiarity. At times, you may feel that material or activities that we cover are basic.

As the textbook states, “You don’t need to be a computer scientist to coexist with computers and networks. But your encounters with digital technology will make more sense if you understand a few basic concepts.” *The goal of this course is to increase your confidence and familiarity with respect to important computing concepts.*

This is designed to be an interactive course. It is also designed to appeal to multiple types of learners. At times, the class will be taught in the traditional, lecture-and-notes format.

Other classes will include everything from student presentations to informal discussions to debates to hands-on, basic coding projects.

Note: This is not a programming course. During our time in the class, we will gain basic exposure to HTML, JavaScript, and general programming concepts.

This course is to get you inspired and motivated about the information technology’s world of opportunities should you want to pursue a career in the technology industry. In this course you will learn all the different aspect of information technology for you to choose your own path.

COURSE POLICIES:

1. Course Grading:

Attendance	**5%**
Class Participation	**10%**
Home Work	10%
Mid-Term	**25%**
Final Exam	**25%**
Final project	**25%**
Total	**100%**

I will take attendance at the start of each class period. If you miss class, it is your responsibility to review the material covered (I will post slides to Blackboard) and to stay on top of assignments and other important class information.

2. **Testing:**
Students are required to take examinations on the day and time they are scheduled. If special circumstances require a modification to the test schedule, arrangements must be
made with the instructor in advance, or the student will need to present a valid excuse from the University. If a student misses an exam, and is entitled to make it up, it is the student’s obligation to contact the instructor to make the necessary arrangements.

3. **Assignments:**
During the first class, I will go through the procedure for uploading homework Assignments to Blackboard. All assignments must be submitted through Blackboard.

4. **Handicapped or Disabled Students:**
All students who have been officially accepted by the university as a student with a disability should present the official documents indicating the special accommodation they require to their instructor.

5. **Ethics/Academics Honor Code:**

All students should carefully read and understand the code and policies available in the University Student Handbook. Any violation of the code and policies may be presented to the University Academic Handbook Honesty Committee.

I encourage you to collaborate on ANY assignment (other than the midterm and final, however). **If/when you work with another student, be sure to clearly state this on your assignment** , as cheating and/or plagiarism will not be tolerated in any Metropolitan College course. They will result in no credit for the assignment, and may lead to disciplinary actions.

COURSE SCHEDULE:

Week	Topics Presented	Reading Assignment	Homework/Lab Assignments
Week 1	The Impact of Technology in a Changing World	Chapter 1	**Sound Byte:** How to Debate Ethical Issues **Critical Thinking:** Career and Computers **Solve This:** How Technology Is Used on the World Stage and in My Personal Life

Week	Topics Presented	Reading Assignment	Homework/Lab Assignments
Week 2	Looking at Computers: Understanding the Parts	Chapter 2	**Helpdesk:** Understanding Bits and Bytes AND Exploring Storage Devices and Ports **Sound Byte:** Smartphones Are Really Smart **Solve This:** Technology Wish List
	Using the Internet: Making the Most of the Web's Resources	Chapter 3	**Helpdesk:** Doing Business Online AND Evaluating Websites **Solve This:** Create a Report: Conducting Research on the Web
Week 3	Application Software: Programs That Let You Work and Play	Chapter 4	**Helpdesk:** Buying and Installing Software AND Choosing Software **Solve This:** Analyzing Benchmark Data **Ethics Project:** Open Source Software
Week 4	***~ TEST 1: Chapters 1–4 ~*** System Software: The Operating System, Utility Programs, and File Management	Chapter 5	**Sound Byte:** Using Windows Task Manager to Evaluate System Performance AND Hard Disk Anatomy **Solve This:** Mobile Operating Systems: Changing Market Share

Week	Topics Presented	Reading Assignment	Homework/Lab Assignments
Week 5	Understanding and Assessing Hardware: Evaluating Your System Networking: Connecting Computing Devices	Chapter 6 Chapter 7	**Helpdesk:** Evaluating Your CPU and RAM AND Evaluating Computer System Components **Critical Thinking:** A Green Machine **Ethics Project:** Benchmarking **Sound Byte:** Installing a Home Computer Network AND Securing Wireless Networks **Solve This:** Home Networking Guide
Week 6	Managing a Digital Lifestyle: Media and Ethics	Chapter 8	**Sound Byte:** Enhancing Photos with Image-Editing Software AND Plagiarism and Intellectual Property **Helpdesk:** Managing Digital Media **Team Time:** "And One Will Rule Them All" **Ethics Project:** When Everyone Has a Voice

Week	Topics Presented	Reading Assignment	Homework/Lab Assignments
Week 7	***~ TEST 2: Chapters 5-8 ~*** Securing Your System: Protecting Your Digital Data and Devices	Chapter 9	**Helpdesk:** Threats to Your Digital Life AND Understanding Firewalls **Solve This:** Computer Security
Week 8	Behind the Scenes: Software Programming Behind the Scenes: Database and Information Systems	Chapter 10 Chapter 11	**Sound Byte:** Using the Arduino Microcontroller **Helpdesk:** A Variety of Programming Languages **Critical Thinking:** Programming Languages **Ethics Project:** Software That Kills **Helpdesk:** How Businesses Use Databases **Sound Byte:** Creating and Querying an Access Database AND Analyzing Data with Microsoft Power BI Suite **Critical Thinking:** Auto Repair Database

Week	Topics Presented	Reading Assignment	Homework/Lab Assignments
Week 9	Behind The Scenes: Networking and Security in the Business World Behind the Scenes: How the Internet Works	Chapter 12 Chapter 13	**Sound Byte:** Network Topology and Navigation Devices AND A Day in the Life of a Network Technician **Team Time:** Developing a Bring-Your-Own-Device Policy **Helpdesk:** Understanding IP Addresses, Domain Names, and Protocols AND Keeping E-Mail Secure **Critical Thinking:** Who's in Charge? AND The Future of Web Programming
Week 10	***FINAL EXAM***		Review all chapters, major topics, and key terms