

Introduction to Information Technology Final Project

There is no final exam for this course. A research paper on a technology topic will be weighted as 10% of your total grade for this course. Since there is no final exam, the exam time reserved will be work time for those that need additional assistance with the final project.

Your paper should be well-organized, using either (non-strictly graded) APA or MLA formatting. For instance, your paper should be double-spaced, include a title, page numbering, in-text citations and a bibliography. You do not need to include an abstract. Make sure you write your paper using full sentences/paragraphs, proper capitalization, grammar and spelling. You should include at least three (3) sources for your project with in-text citations and a bibliography page. Your paper should be at least three full pages (with no more than five pages of content). Any title or references/bibliography pages are in addition to the three-page minimum and five-page maximum.

SafeAssign or similar plagiarism detection services may be used to verify that students are complying with the school's academic honesty policy. Make sure that you put **any directly copied and pasted text** in quotation marks with citation (in-text citation and included in the bibliography) and any information **that has been paraphrased** must also have an in-text citation with a citation in the bibliography. Once you submit your paper, a report that includes information on the percentage of material that has been identified as copied from another source will be available. Please open the report and, if necessary, use the provided information to adjust your paper to avoid violations of the academic honesty policy and **resubmit** the project. Your last submission will be graded (any previous submissions will be ignored).

Open the final project assignment by clicking on the assignment link. The final project must be attached using the "attach files" button under the submission area in the Blackboard assignment. The **only** formats that will be accepted will be Microsoft Word (.docx) or Rich Text Format (.rtf). Files that are not written in English, submitted by email or not attached to the Blackboard assignment in the acceptable format **will NOT be graded and discarded**. Do NOT copy and paste text into the "text submission" area of the assignment, your file must be submitted AS AN attachment.

Don't know how to attach a file in Blackboard? Watch this video (starting at the 0:40 mark): <http://tiny.cc/attach-file>

Grading Criteria:

60% Content

3 pages of written content (or 20%/full page); no more than 5, but less than 3 full pages will reduce your grade

Any images will not count towards length of content (these will be removed to assess number of pages)

Separate title (APA) or reference pages do not count towards the three pages of required content

15% Citations

3 or more citations should be included on a references page (5%/reference)

15% Formatting

Writer's choice of APA or MLA format (not strictly graded but must choose a format and use basic principles)

12 pt. standard font, double-spaced, 1 inch margins, page numbering, citations in APA/MLA

Some guides for how to use APA or MLA

MLA: <http://tiny.cc/guide-mla>

APA: <http://www.bibme.org/apa>

Both of these show you how to format the in-text citations, the bibliography citations, and some general formatting guidelines for the paper (margins, etc.). There are lots of guides online and several sites that will automate the process of creating the bibliography citations (and even the in-text citations), such as:

AUTOMATED CITATION GENERATOR: <http://www.citethisforme.com/>

Other resources: Rio library, other students, instructors, etc. can help you if you are lost

10% Spelling/Grammar

Choose ONE of the four research topics outlined on the pages below (if you would like to work on another topic directly related to the course/material, it must be approved before week 11 of the course):

Web Project 1: The History and Future of Cell Phones

If you were to read an ad for the first cell phone, it might look something like this:

This portable phone is easy to carry around weighing only 2 pounds and just over a foot tall and 4 inches thick.

After 8 hours of charging, you can talk for nearly 30 minutes and store up to 30 phone numbers. Prices start at just \$3,995!

Obviously, cell phones have come a long way since their invention more than 35 years ago. Today, cell phones can fit in your pocket and are capable of offering many services other than just phone communication. If this much has changed in 40 years, what changes do you think might occur within the next 40 years?

Your task in this research project is to research BOTH the history AND future of the cell phone. Write at least three pages that summarizes how today's cell phone was developed and based on your research and imagination, describe how cell phones may change in the future.

Suggested Search Keywords:

History of Cell Phones, Future of Cell Phones, Cell Phone Timeline, Cell Phone Innovations

Web Project 2: Robotics and Automation

The mechanization of industry changed the world at the beginning of the 19th century. The combination of computing and automation could have another major impact upon society with the innovations in robotics and artificial intelligence. Machines have been used throughout history to enhance human productivity and alleviate the toils of manual labor. While machines have become the workhorse of production and manufacturing, humans have always been operators that were in control of the devices. As technology advances, more interest has been in replacing these human operators with autonomous computing applications, even for everyday life activities such as driving or maintaining/living in the home.

Using the Internet, research the history of industrial automation and how robotics and artificial intelligence are being used to replace human operations in the workplace, industry and/or the home.

Suggested Search Keywords:

Artificial intelligence, Industry automation, self-driving vehicles, home automation, smart homes,

Web Project 3: Improving Portable Power Sources

Laptop computer sales outpaced desktop computers for the first time in 2008. This trend continues as tablets, smartphones, and smartwatches make mobile computing even more popular. The benefit of portability can be virtually limitless with an AC power source, but if there is no place to plug in your device, the usefulness only lasts until the battery dies.

Using the Internet, research the history of powering mobile devices and the various options available for powering and recharging portable computing devices today. How did older mobile devices cope with this challenge? What new technologies are being developed to help extend or maximize battery life? What types of alternative power sources are available today? Additionally, research ways to extend the life of a typical battery powered device. Write at least three pages summarizing your findings. Which of the new technologies or power alternatives do you think holds the most promise for the future?

Suggested Search Keywords:

Notebook Battery, Notebook Power Technology, Improving Notebook Battery Life, Maximize Battery Performance

Web Project 4: Wearable technology

Wearable technology has been increasing with the introduction of many computerized devices that can be worn on the body. Smartphones and fitness devices were just the beginning for collecting data about bodily movement and functions. Watches, glasses, clothing (such as gloves and shoes, etc.), and other devices are becoming computerized and prevalent in the marketplace. The portability of computing and medically approved sensors has increased the ability to track and report biological functions, as well as social interactions using cameras and microphones. A new level of data analysis has privacy implications, such as the ability to collect and track location data and medical information. Wearable technology also has other uses, such as for mobile payments, navigation, assistance or treatment for impaired or disabled users, media delivery, and to help with communications.

Research the history, benefits and hazards of using wearable technology. How will metadata be a factor in the use of wearable technology and how will it be useful or a deterrent to the use of these newer technologies? What are the speculations for the future of wearable technologies? What advances are being made in this industry? What do you think the future will hold for wearable technology?

Suggested Search Keywords:

Wearable technology, wearable computer, clothing technology, smartwatches, fitness trackers, metadata, location tracking, e-textiles, near-field communication