INT 1010 Research Project (165 points)

Career Research Project

See the Summary at the end of this document for due dates of each phase and possible points for each. All phases must be submitted on time to earn points for the final phase.

Overview: This project will involve writing an analytical paper that evaluates and compares three careers. You will learn how to use an evaluation matrix to make a better decision about which career to choose. Each student’s thesis statement should center on the choosing which career would be the best. One career must be in the field of your program of study. If your major is undecided or general education, choose a career that interests you. The other two careers must be Information Technology (IT) careers. Of course, if IT is your major then all 3 careers will be in IT. One of the IT careers must be related to cyber security. In addition to comparing the careers, you will discuss an ethical issue that may arise for those who work in one of the careers, and at least one emerging or “cutting edge” technology used in one of the careers.

Phase 1 Pick Careers and Plagiarism:

Step 1: Decide on the 3 careers you will investigate. No two students in the class may have identical sets of 3 careers, though overlap is allowed. When you decide on the three careers, post a thread to the Blackboard discussion board established for this purpose. Before posting, look at the threads already there to make sure your set of 3 is unique. You don’t have to explain anything, just list the 3 careers in the subject line. This way we don’t have to open the thread to see which careers you chose. A good place to locate career information is the Bureau of Labor Statistics, www.bls.gov.

If you are having trouble coming up with a Cybersecurity job titles, here are some choices:

- Security Analyst
- Security Engineer
- Security Architect
- Security Administrator
- Security Software Developer
- Cryptographer/Cryptologist
- Cryptanalyst
- Intrusion Detection Specialist
- Computer Security Incident Responder
- Source Code Auditor
- Virus Technician
- Penetration Tester
- Ethical Hacker
- Vulnerability Assessor
- Information Technology Specialist

This list was adapted from The George Washington University’s Department of Computer Science, Master in Cybersecurity web site (http://www.cs.gwu.edu/academics/graduate_programs/master/cybersecurity/cybersecurity-jobs), February 26, 2015. This link is no longer available but the career titles are still relevant.

Step 2: Do some research on plagiarism. Learn how you need to credit your sources. Start with reading the GCFLearnFree.org tutorial, “Use Information Correctly, Avoiding Plagiarism.” Then explore the Citing Sources, Plagiarism section of the PGCC Library Research Tutorial (http://pgcc.libguides.com/c.php?g=60038&p=385714). Take the Plagiarism Quiz until you get 100% on this web page (http://pgcc.libguides.com/citationstyle/plagiarism)

Take a screen-shot of the screen showing your score (100%) on the quiz from the email that will be sent to you and attach it to your discussion board post in Blackboard for Phase 1. If you do not know how to take a screenshot, read the GCFLearnFree.org tutorial under Tech Savvy Tips and Tricks, Taking Screenshots.

Phase 2 Annotated Bibliography:

Step 1: In this phase, you will research information about each of your careers, an ethical issue and an emerging technology. You want to find out what a person in each career does but you also need to investigate criteria
for each career that we will use for evaluation. For each career, you need to investigate the salary, education, hours, location and passion. You should be able to find information on all the criteria except passion. We are going to define passion as your desire to have this career.

- Look up the criteria for each of your careers on the Bureau of Labor and Statistics Occupational Outlook Handbook
  - [https://www.bls.gov/ooh/](https://www.bls.gov/ooh/)
- Look up the criteria for each of your careers on O*Net
  - [https://www.onetonline.org/](https://www.onetonline.org/)
- Look up the criteria for each of your careers on a site of your choice
- Find at least one site that identifies an ethical issue(s) for one of your careers
- Find at least one site that identifies an emerging technology(ies) for one of your careers
- Keep all (8 or more) URL’s in a Word document.

Read the information on this site which is the Evaluating Sources, Evaluating Websites section of the PGCC Library Research Tutorial. Look at your sources from Step 1 and see how they meet the five basic evaluation criteria. Replace those sources that might not be high quality.

Step 3: Create a bibliography (reference page) using the Word references feature. Include each of your sources. In your GCFLearnFree assignment, you should have completed the Word Tips (tutorial subgroup), How to create a bibliography or works cited page in Word.

Managing your references will be much easier if you use the same computer; but if you plan to work in different locations, you will need to move your sources. Here is a link that explains how to move bibliography sources:

Step 4: You are required to use your sources as evidence in this research paper. You will need to synthesize what you have read and then write your paper. Read the GCFLearnFree.org tutorial Use Information Correctly, Putting Info Together. Create an annotated bibliography to force yourself to read each source and take notes on what information will be needed to support the facts in your paper (career salary, education, hours, location, ethical issue and emerging technology, etc.). These will be the notes you use to write your paper. See a sample annotated bibliography in Blackboard.

Step 5: Submit these two Word documents (regular bibliography and annotated bibliography) into the Blackboard assignment for this phase.

Phase 3 Evaluation Matrix and Chart:

**Step 1:** Each class will set their own criteria and your instructor will post these into Blackboard under Phase 3. Most classes will use salary, education, passion, etc.; but you need to make sure you are using the exact criteria for your class. You will use the criteria to evaluate your careers.

**Step 2:** Create an evaluation matrix in Excel that will let you compare the 3 careers side by side on each criterion. Refer to the tutorial presentation about creating an evaluation matrix if needed. What should be in the matrix is the 3 careers, the criteria to be used, how you personally weigh each criterion. Divide 100 points among the criteria, with the highest number of points going to the criteria that is most important to you.

**Step 3:** Based on your research, rate each career on each criterion (on a scale of 1 to 100). Again refer to the presentation about creating an evaluation matrix if needed. After you have rated all 3 careers, create Excel formulas to calculate weighted scores using a mixed cell reference. This will enable you to see which career scored best with the raw scores and then which career scored best with the weighted scores.

**Step 4:** Create an Excel chart worksheet. The chart may be the style of your choice. It must give good information about the data in your worksheet. Name each worksheet in the workbook appropriately. Submit your file with both worksheets into the Blackboard assignment for this phase.
Phase 4 Write the Paper:
In this phase you will complete your paper and submit it for a plagiarism check. Be sure to give credit to your sources throughout your paper using the Word reference features to enter internal citations.

The body of your paper should include:

- A brief explanation of your choice of careers. The body should tell why you weighted the criteria as you did for each career. The weights are based on your opinion. Then the paper should explain any high or low ratings you gave any of the careers based on your research. Discuss how the careers compared to each other with respect to the criteria. Support these ratings (scores) you assign with details from your research (not your opinion). It is not necessary to explain each score in great detail, but you should help your reader understand how you arrived at your scores by presenting specific facts about the career based on research. Also comment on what you discovered. Did you get the results you were expecting? Why or why not?

- Include the two Excel elements, your evaluation matrix chart and table, into your Word document in appropriate places (APA requires each figure be at the top of the page).

- Identify at least emerging technology in one of you careers. Explain the benefits and limitations of the emerging technology on decision-making and problem solving for the career. Details should be supported by your research.

- Evaluate at least one ethical issue for one career. Relate this issue to the identified emerging technologies (above) if possible. In your evaluation discuss how an individual in that career should deal with the ethical issue(s). Support your opinion by citing facts learned in your research.

- The Reference page. You should already have this created using the Word Reference feature. You should also use the Word Reference feature to make your internal citations. DO NOT submit the annotated bibliography. You should submit a Works Cited page (APA style).

Submit a copy of your paper to the Blackboard assignment link. It will be automatically submitted to SafeAssign to check your paper for plagiarism. You may want to read through this web page about how SafeAssign works: https://help.blackboard.com/en-us/Learn/9.1_SP_10_and_SP_11/Student/060_Tests_and_Assignments/About_SafeAssign.

Read through the originality report you receive after submission and make the appropriate edits to your paper for Phase 5.

Phase 5 Format Final Paper:

After you make any necessary changes based on the originality report from Phase and your evaluation matrix from Phase 3, format your paper according to APA formatting style (see example paper in Blackboard for illustration of this format). It should include:

- Title page
- Abstract
- Body of paper with sources credited parenthetically
- The evaluation matrix and chart pasted into the body of the paper at an appropriate place
- References page

Submit this final draft document (one Word file) and the evaluation matrix (one Excel file) into the Blackboard assignment for this phase.
## Career Research Paper Points and Due Dates

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