Final Exam

This exam is worth 300 points.

Your Name: Xia Hua

Before you start

As you take this exam, make sure you save your file often. Use the correct file naming conventions to name this file when you save it and then upload it. **Per class policy, as previously stated, we do not grade files that do not follow the naming conventions.**

Double-space your answers.

Do not change or remove this intro or the questions in this exam. Do not write your answers in another document and turn *that* in. Both of these are considered cheating. Any cheating results on an immediate **F** for the class, as explained in the syllabus you signed. We may also take further action.

Place your answers immediately under the question you are answering. Do not put all your answers at the end of the document. You may lose up to 30% of the final points if your answers are not immediately under the question.

Before you turn the exam in, make sure you read your essays for grammar, spelling, and logic. If you struggle to write in English or you are just not confident about your writing, you can have someone **not** in this class read it for these mechanics, such as the Learning Center. This is a writing class and you will be graded on your content (50%) *and* on your writing (50%). **Please understand that answering the prompt fully and completely comes FIRST, then we examine the writing.** Do not turn in perfectly written gibberish that does not answer the prompt specifically and concretely.

Support your ideas with material covered in this class and in the reading. You may do further research on the web and quote from that, but you must provide those references. Be specific and concrete in your examples, including which specific lecture contained the concepts you are addressing. We do not care what citation format you use.

You may use quotes from other sources, but those quotes **do not count toward the word count for the answer**. In addition, feel free to bring in concepts and ideas you've learned in other courses to support your answers.

This exam **must** be uploaded to Blackboard by **December 13 2019, 11:59pm**. There are no exceptions. If you do not upload your file in time, you will receive a zero for this exam. This will seriously impact your grade.

Short essays (50 points each):

Answer question number **1**, then pick **2** of the remaining 3 questions. Write at least 500 double spaced words for each essay you choose. Write your answers in this document. Use headings, examples, and other writing devices to help your reader.

1. Thinking about the contexts of communication, discuss the similarities and differences between writing for an academic audience (e.g, your other classes) and writing for a business audience (e.g., this class). Be specific and concrete about the differences and similarities, thinking about audience, writing style, human cognition, etc. **Provide at least one example of a sentence you have written for another class and how you would rewrite that sentence for this class.**

Introduction

There are differences and similarities between writing academic readers and business audiences. In general, the similarity is that they all have a specific group of readers. Besides, they all need to discuss around the designed topic. But they are different in many aspects.

Writing style

In formal English writing, it requires a thesis and examples to persuade readers that is correct. For example, in normal English writing class we can write a sentence that "With more and more cell phone user nowadays. The over purchase of electronics is becoming a serious problem for our environment.".

However, if we convert to business writing type it could be "Wasted electronics are a major pollution to us.". The business writing should be more concise and simpler. People like to discuss topics in a very straightforward way. They use less modifier vocabulary and less description.

Different reader

I can say another difference in business writing and academic writing is their reader. The reader for our normal academic writing is our professor and teacher assistance. But the business writings are usually writing for investors and manager in the company.

I need to use professional description of academic writing in specific study area. For instance, If I am studying chemistry writing report. I should always keep the format and rigors. Such as, "For this new object I need to 25g of water to start the experiment.".   Each element of the sentence must be very accurate and not ambiguous.

If I writing to a business reader, due to the variety of education level. They might not have the ability to fully understand all the tech aspects behind the documentation. Such that "Our brand-new product only consume water if it starts working." Is enough. I do not need to explain in detail. I just give brief idea by analogy and fulfill the product by their imagination.

Writing Requirement

In the academic writing, it aims to develop higher skill level for yourself. Professor always require me to use high level vocabulary and strict formatting. They are looking for a higher level of writing that can writing in more advance sentences in an essay. Teachers always focus on rhetorical methods, complex sentences and advance vocabulary.

Compared with the business writing, the business requirement is always easy to understand. Because the purpose of writing a business document is to let someone know about the new product. The easiness of understanding is always of the highest priority.

The similarity of those two writings is they both need to discuss the topic assigned. Also, following the requirement to finish the essay.

Conclusion

For every writer we need to construct a concise and simple essay. Not matter is academic essay or business document, we should always write our document by audiences. Targeting the correct reader will make your essay to become popular.

2. Discuss the audience a resume (which is a form of technical communication) needs to reach. Using specific and concrete details drawn from class, lab, and your textbook, explain how a resume addresses the needs of a business audience and what kinds of things you, as a resume author, can do to improve communication about your skills and qualifications.

Introduction

A resume is a very important self-description. It let people quickly known you, getting a brief idea you have what skills or ability. And the new company will know what benefit you could bring them. In this essay. I would like to talk about how to construct a good resume.

Format

Every successful resume must have a rigorous format. Well organized resume shows you are attention to detail. Meanwhile, a great format makes your information is easier to find. You should always keep your description well organized.

A great technique I learned in class is organize your work experience by time and briefly describe it. First, employer like to find relative information in thousand of resume applications. It's always a good idea to put your information in an easy to find a position. On the other hand, you should use simple and concise sentence to describe your previous position history.

Control all elements inside one page is a good strategy on resume writing. Put everything no more than one page helps reduce the interviewee reduce the reading. Image there are tons of applications, it's nearly no chance interviewee can read through all your sentences. So, write and simplify your most valuable skills, previous position and education experience within one page.

Professional Description

A resume's content is very important to employers. No one prefers to hire an unrelated person. You must make every personal information expressed in a profession way. To avoid hiring

companies underestimate your abilities, you should always use your professional description while writing your resume details.

Include every contact method you can provide. The company shows the interest to hire you, but they cannot find the way to contact you. In order to avoid this happening. You should not only add our email address to the contact information, but also a related phone number that they can get in touch with.

Describe your experience confidently. Sometimes you might lack of resources to writing of the resume. You can include your personal experience to enrich your professional expertise. In my point of view, writing something you are proud of and outstanding will definitely catch employer's attention.

Formal Languages

Resume is not writing an email to a close friend or professor. It's your concentrated personal description. You should always treat it seriously and using formal languages. Besides formal language, you should carefully show your expectation and interest in joining this company.

It's not a good idea to use a same resume for all companies your want to get in. We should always modify your resume and showing your different aspect of interest to different companies. By showing different skills levels or abilities. Analysis your employer and make the specific revision for this company is the key to attract more employer.

Conclusion

Resume writing is a very technical writing skill. By following the guideline of great format, professional description and formal languages. We can write a successful resume that able to attract company employees. Always remember a good resume is the key enter a great company.

3. Consider the Volkswagon emissions scandal
   (https://mobile.nytimes.com/2017/05/06/business/inside-vws-campaign-of-trickery.html
   for details, although you are welcome to do your own research on this as well) and the
   implications for technical communication in the engineering process and engineering
   ethics. Do effective communications play a role in ethical behavior? If so, how? If not,
   why not? Be specific and concrete – do not just note that ethics and/or communication
   are good and people should have some.

4. *Using one of the functions from your functional spec, write user instructions for ONE
   action (for example, if one of the functions is secure login, write the user steps for how
   to log in). Be sure to consider the four user questions. Then explain why your
   instructions are effective for the user in light of the various learning, input, and human
   cognition topics we have discussed throughout class. HINT: Make sure your instructions
   follow the writing guidelines…*

Building Global Positioning System (GPS) Navigation

GPS is a build in real-time traction system of your armor. It automatically reports your current

position to relative organization. Also, it provides navigation function to your head body armor.

How to operate GPS navigation

1. Click the head body armor close ear button.

2. The navigation program will initiate on your front right glasses window.

3. Speak out the destination address.

4. Speak out "GO" to start the navigation.

5. The navigation program will start displaying the current location on mini map on the front

   right glass window.

6. The navigation program will start displaying the estimate time and distance to users on the

   front right glass window.

7. Speak out "Report" to broadcast the current location to user and upload current location to related organizations.

8. Navigation program will automatically log current location data into build in Blackbox.

9. User reaches the destination. The navigation exit from the front right glasses.

10. If user wants to stop the navigation just speak out "Stop" to stop the navigation

11. The navigation program stops. The navigation exit from the front right glasses.

12. If the navigation does not receive any voice command, it would stand by silently on the top right front glasses window.

13. The navigation will automatically exit after 30mins of no operation.

Attention

1. The GPS navigation unit contains reliability issue due to the accessibility of satellite. Sometime bad weather can influence the accuracy of navigation.

2. The "report" function automatically collects the current location data. And save the data for 30 days of operation period. After 30 days, the log data will replace with new log data.

3. If there are places of the same name, the GPS navigation will provide the destination option on the top right window on the glasses.

Why my instructions are effective

Concise Languages

In the instructions. I use many short sentences. These short sentences can make sure everyone is able to understand it correctly. And I use repeatable sentence template by just changing different operations to reduce reader reading task.

Problem Detection

People might have difficulties while having product problems. I am standing on a user point of view to recheck the possible problems. I made some explanation to some internal functional

disadvantages. Secondly, I explain the possible problem that I did not mention before. Third, I

provide the potential problem that customers might ask in the attention area.

Numeric Ordering

Numeric ordering provides a great step by step instruction to users. It simplifies the learning

process ad enhance the traceback ability. If you get lost in the instruction, you can always trace back

by numbers. Also, is easy to reference in index from the manual.

Long essays (75 points each):

Answer question number 1, then pick **1** of the following 3 questions. Write at least 1000 double spaced words for each essay you choose. Write your answers in this document. Use headings, examples, and writing other devices to help your reader.

1. Following the instructions given in lab (and provided on the Course Materials tab in the Understanding Your Readers section) write a 1000-word report on the results of your experiment.

    You must discuss at least TWO subjects: one from your ENG 180W class and one non-engineer.

    Think about the following:
    How did the test subjects approach your instructions?
    What specific things did you note, and how do those things relate to concepts covered in class?
    What could you have done to improve your experiment vehicle (the instructions)? When considering this question DO NOT tell us how we might change the assignment. That is not the thing we want you thinking about here.
    What else did you learn from this experiment? Relate that learning to cognition subjects covered in slides and how you might apply them in your career. Consider the possible different learning styles and cognition of your subjects - be specific and concrete, calling the styles and cognition concepts BY NAME.

    NOTE: THIS IS NOT AN OUTLINE, nor should you use these questions as headings in your paper. Doing so will lose you points. Your report should be structured logically, according to the needs of the material you cover, and your headings should follow the writing guidelines and reflect that structure.

    You may, and in fact should, refer to your notes and to the lecture slides provided as you structure and complete this assignment. A vague, high-level analysis is not acceptable. Spend most of your words on the analysis and very little time describing the experiment.

    NOTE: You do NOT need to include the airplane instructions themselves.

Introduction

The paper airplane experiment I did was a failure experiment that I have in the class. My classmate didn't finish my paper airplane and start questioning about my instruction. Because my instructions are more "developer orientated". The normal users cannot understand it correctly. Therefore, it leads to a failure product.

Redo experiment

After I failed my first airplane experiment, I try to find someone around me that can redo the experiment. I learned from the last mistake and try to use my instruction sheet for people that have different educational backgrounds. The two people I found is my roommate Eric and Xi. We all have the same engineer major background, so that they might understand those instructions easier.

At the first time they both followed my instructions correctly. But still making a different airplane. The final result is much better than I had in the class. Although they are making different airplane. But the overall idea they are very similar to the other. It reminds me that education background and living experiences are very influencing to people creation process on the production.

On the other hand, I found Eric might have misunderstood my instructions. Because Eric keeps asking me about how those steps is connected to each other. He sometimes lost the track on making the airplane and start asking me about the product. Meanwhile Xi is very focused on his airplane production. This reminds me that different problem-solving habit influencing engineer production too.

Revise instruction

I believe my instruction has problems which deliver some unclear instructions to them. Therefore, I start revising the instructional manual. In the new designed instruction set. I carefully reorder the correct steps to construct more understandable sentences. Also, by putting steps numbers at the beginning of different instructions that delivers modular ideas to the reader.

After I finished the new instructions, I tried to let them redo the experiment, they understand what I want them to craft for the airplane. After they followed by my new instructions. Their result is much better than previous. Also, it's a great progress compared with what I did in the class. It looks very close to my ideal airplane model. However, is not the exact same, and details needs more polish.

Even though I put much effort into the instruction writing. The airplane still not the same compares with my idea. Also, I learned that a clear outline and layout is much easier for them to understand instructions.

Concise and simple

Everyone likes concise and simple instructions in production. I removed some rarely used words in the instruction. I made the whole instruction as simple as possible. And the instructions design idea is straightforward.

I put so much effort on rewriting the sentences of instructions. And the outcome is a success in my opinion. I used the tips from the beginning of this class to rewrite those instructions to become readable and simple. On the other hand, Eric seems more understandable to the instruction materials, he successfully made a great airplane model that satisfies my requirements.

Through this practice I know concise and simple is the key to deliver information to others. Simple instructions make people easier to understand you. Meanwhile construct concise sentences, let them get the key idea in a glance. Those two techniques are very important on writing instruction documentations.

Clear Picture

I had very a successful practice after I revise the instructions for my paper airplane experiment. However, Xi he is very close to the ideal model of my paper airplane but still needs more detail modification. I am trying to use drawing to avoid that problem.

On the other hand, I drew some demonstration pictures in my mind that could be helpful for him to construct by the instructions. I draw these pictures with instructional comments above. I believe that he will able to finish it by following the picture tutorial.

This addition of pictures shows a great success that picture helps people illustrate a better project. After a while, he successfully created a great paper airplane model by my instruction. I am

satisfied with that. In general, the paper airplane is very similar to Eric's airplane. Also is very closed to my requirement.

Detail Data

Overall the paper airplane model from Eric and Xi are very similar to each other's. But some details such as angles and corners are not perfectly lined up. To solve this problem, I try to add more detail information such as accurate digital angular description in the sheet.

This modification made this whole project very successful. After adding the "fold the paper from right top to the left bottom. Lined up corners". They are working steps are extremely similar. The instructions are very straightforward now. And they can fully understand the idea of making a paper airplane. Finally, they are make a paper airplane that fulfilled my requirement.

As an engineering student, detailed data may have a great impact on our decision. Because we are sensitive about numbers, and we have a deeper understanding on numbers or data. However, if is normal user. This description maybe be not that useful to them. But there is still a better way to make my description clearer.

Lesson learned

The instruction manual for crafting paper airplane is the bridge from developer to the user. If a developer doesn't include clear instructions to the user, no one can craft them successfully. Therefore, your developed product is meaningless. Writing clear and understandable instruction is very important to all of us. Not only developer benefits from it, but also user can have a better product experience.

Think about your product will have what type of user is important too. They are having sometimes have a great influence on the style of writing your instruction. If you are writing a lot of math formula for some people who doesn't have any math background. They could consider this

product to be useless. If we are writing a lot of text description of a high school student. They might think this product is hard to understand.

Conclusion

I fully understand the paper airplane is a very great approach to writing instruction of different users. From writing instructions to modify instructions. There is no perfect instruction for the user. There is only suitable instruction for specific users. Once I understand this, I mastered how to write great documentation of instruction for different user.

2. Think about the different types of specification documents we've discussed (user guides as demonstrated in the paper airplane assignment, functional specs, and test cases). What are the different audiences for each? How does your communication change for these audiences? How is it similar? In particular, think about modes of input, human cognition, communication contexts, and what reader questions need to be answered.

Introduction

There are many useful skills that I learned in this class. I believe I can put these skills into great use in my future works. Meanwhile, something I would like to discuss that we did not talk about in the class. I want to discuss about some techniques that I learned about behind the project assignment.

Peer Pressure

Society is fulfilled with many kinds of pressure. Peer pressure is on of them inside a company or a school. Pressure is always invisible between people to people. Sometimes peer pressure might be overwhelming. But the problem is how we deal with it.

Peer pressure always surrounds you. Think about the peer pressure when you newly entered an unfamiliar field. Competitive and comparison are everywhere. We need to transform these pressures into a new power. That's how we treat these pressures correctly.

For example, the project we designed in class. My teammate like to compare to other team's project idea. He always thinks our project is not perfect enough to be outstanding in the presentation. But we polished our documentation and make it perfect enough to present to others. Therefore, we finally proud of what we have done.

I learned from this experience. We do not need the fear about peer pressure. Have the courage to face the pressure, which is the best way to eliminate it. We should keep doing our work, and finally we will get what we deserved for our effort.

Also, I believe peer pressures that for an engineer could concern about. In the future, you might go to a new company and having many interviews. Be confidence might be a great way to deal with peer pressure. And the source of the confidence is admitting effort and trust you are the best person in this position.

Conflicts Ideas

We are always working as a team or a group. Communication is the best solution to solve problems. But there always a conflict between people's ideas. It's difficult that people could have the same ideas. Even communication cannot solve it. The best way is to calm down and wait to solve it by time.

In the lecture we learned about communication is the best way to solve the problem. But the time does help people to solve conflict ideas too. They might not agree with you in the first time. However, they might agree with you in the later future.

For instance, while in the group project we almost argued about the design functionality requirements. Although I thought my idea is correct, my teammate kept denying my idea. I tried to

explain to him everything. We stopped discussing this problem. By understanding other requirements, my teammate known his decision is incorrect.

Sometimes communication is unnecessary to solve a conflict idea. The problem will solve automatically by the time. Because we all are working on a same team, everyone knows each other thinking habit. There is a thinking latency for someone to fully understand the requirement.

It's more efficient to jump the current obstacle problem to next new problem. You might find the correct solution in some random questions. Therefore, if we meet conflict ideas, sometimes skip it and wait for it might be a better solution to the problem.

Working environment

The working environment influencing people productivity. We never noticed that you are always getting better focus on a good working environment. We should always keep our self in a productive working area.

While we are doing the project works. In the first week of team assignment. Our group member use remote Facetime video chat to finish out team project. However, we found this method is time consuming and always submitting a low-quality document to our whole project. We are trying to think about how to make our work more efficient.

Soon we found out we should find a better working environment. Which we schedule every Thursday that whenever there is no lab. We start our project discussion. Everyone moved from home to the library to start their work. Also, they focus more on the project. We are also getting more information exchange while sitting next to each other.

We discuss about the distraction while working at home. You might inside your comfort zone and your brain does not want you to feel the pressure from working. So, you keep wasting your time to overcome your coming pressure. The more you spend fighting on your mood, the less you can

spend on working on your work. Only moving the workplace from home to school can solve this problem.

In the school, you might have a feeling of duty while you are doing your work. Therefore, your brain delivers a working signal to your body that only finish work quicker then you can go home earlier. And we all start focusing on writing documentations. People might not think about this idea. And going to the library is a good habit that keeps you become committed to your team project.

Reasoning by Common Sense

Reasoning by common sense is an interesting topic that I learned from the project. Properly use this skill can easily recede some unnecessary work on your project. This skill needs user social experiences. And need a great sense of the big picture in your project.

For example, sometimes we are looking for examples to create people's persona. But how to find it quickly and efficiently is the biggest problem. They are thousands of examples online, but how we use it efficiently is a great question we need to think about.

In my opinion, they are two types of reasoning. The first type reasoning is by your experiences. This experience can grow with your ages and social experiences. In average people older than you always have a better problem-solving ability. Second is common sense growth. This type of knowledge increases by your life experience. The more you have experienced, the more knowledge you can get.

Conclusion

We can find out that there are many interesting topics we are not covered, but I want to talk about. After I had this class. I learned a lot knowledge about how to work with engineers. From creating a team to develop a real product. Those are valuable experiences that I will never forget in this field of study.

3. We covered a lot of material in class. What did you learn that we did NOT ask you about above but would like to discuss?   Think about how this material might relate to your senior project, to your work when you enter the workplace, your area of study in general, etc. Remember to follow the writing guidelines, develop your work logically, and be specific and concrete.