

ENGINEERING AND ME: WHY I WANT TO BE A _____ENGINEER

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ASSIGNMENT OVERVIEW: ENGINEERING AND ME

This assignment asks you to consider your current thoughts and assumptions about the field of engineering you intend to pursue. You will familiarize yourself with that field of engineering; you will assess your suitability for that field, and that field's suitability (or unsuitability) for you. The research for this assignment requires that you consult resources that will provide information about the field of engineering you are planning on pursuing. You will also "research" your own interests, experiences, aptitudes, skills, achievements and goals. You will use the details of this "personal" and library research to establish why and how your potential chosen field of engineering is (or isn't) a logical match for the person you are and want to continue to be.

LIBRARY RESEARCH

Consult the Library Research Guidelines, linked via the Engineering 0011/0711 Writing Projects page. For this paper you are required to consult a minimum of 5 sources. One will be the *Occupational Outlook Handbook*. The others will be various kinds of sources that provide you with further up-to-date information about working conditions, salaries, job availability, etc. in the field about which you are writing.

WRITING ASSIGNMENT

Write a minimum (you may go over this minimum word count) 1000 word (not including References and Acknowledgments) paper establishing and explaining your decision to pursue a particular field of engineering. While you may not be 100% certain about what field you're most interested in, or why you and that field are a good match, you are in the Swanson School of Engineering, and you have some theories and ideas about what got you this far and about where you might be going. Writing this paper will help you assess the validity of those theories and ideas.

You will organize your research according to a scientific model of hypothesis, investigation, and conclusions. Your paper will enact this process of proposing a theory or hypothesis, presenting the research details relevant to that hypothesis, and, based on your research, assessing the validity and significance of that hypothesis. You will use the sections of your paper to present your hypothesis, research, and conclusions. As with all strong, cohesive written

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communication, you will clarify how all the elements of your paper interconnect; you will clearly articulate how the information in one section is important to the clarity and authority of the information in all sections.

INTRODUCTION: _____ENGINEERING IS (HYPOTHETICALLY) THE FIELD FOR ME

In this section you will present your hypothesis regarding the field of engineering you think, at this point in time, you are most interested in pursuing. Along with your hypothesis, you will present details regarding why you believe this is a reasonable hypothesis at this time.

Be careful to present a clearly stated hypothesis and accompanying, sufficiently specific details to demonstrate the overall reasoning that led to this hypothesis. In this section you might present statements such as: "I came to the University of Pittsburgh Swanson School of Engineering with the plan of majoring in civil engineering. I have always been interested in the construction of large structures, especially extremely tall urban skyscrapers. From what I knew about Civil Engineering, this field seemed to be the most likely career for participating in the design and construction of such structures. My research for this paper has reinforced my speculation that Civil Engineering is the field in which I can pursue my interests. A career in civil engineering, with a specialty in structural engineering, will allow me to make use of those mathematical and design skills that seem to be my forte, and I can earn the kind of money necessary for the kind of life I want to live."

The next sections of your paper will then demonstrate, in detail, why civil engineering is, upon further research, a sound career and life choice for you.

WHO I AM

For this section, you will engage in and report on "personal research." You will access and present those details of your own past and current experience that indicate why a particular field you've been thinking about pursuing is (or isn't) the field you will actually pursue.

For this section, you will "research" your own experiences, interests, achievements and aspirations. To facilitate your personal research, you might ask yourself: "what experiences in my childhood and beyond sparked my interest in engineering? What have I done in the past ten or twelve years that might indicate _____ engineering is the field for me? What kinds of academic or

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other projects have I initiated, participated in, and/or completed that, when I look back at them, suggest I would be good at being a _____engineer? What experiences or projects were so interesting and exciting to me that reviewing them leads me to believe that _____engineering is a career I would be happy pursuing?”

As you investigate your own motivations and goals, you might ask yourself: “what kinds of work do I want to spend my life doing, and why? Would I enjoy working closely in different locales with many different types of people? Would I prefer a job that involves working on projects by myself or with a small team in a lab? Do I want to travel the world? Is it important to me to live near my extended family? Am I the kind of person who likes to be at the center of hectic activity or do I usually need ongoing peace and quiet to be productive?”

In this section, then, you will research and present, **in detail and with concrete examples,** those interests, characteristics, experiences, competencies, achievements that influenced and continue to influence your emerging decision to be a _____engineer. The information presented in this section will detail the more personal experiences and factors that reinforce (or refute) your initial hypothesis.

WHAT REALLY GOES ON IN _____ ENGINEERING

In this section, you will draw on your library research to present relevant details about the field of engineering you hypothesize is a good career choice for you. Through your library research, you should be able to learn about the kinds of work _____engineers actually do; the salary range for _____engineers; the working conditions in the field of _____engineering; the job prospects for _____engineers; the kinds of education/degrees usually required for a career in _____engineering. These kinds of research details should help you determine the validity of your original hypothesis. Does your library research indicate that you would be challenged in positive ways by a career in _____engineering? Do the details of _____engineering yielded by your library research sound appealing to you? In what ways? Are you interested in pursuing the kinds of education/degrees required for a career in _____engineering? Do the customary working conditions or situations for a _____engineer seem appealing to you? Are the kinds of companies or organizations that tend to employ _____engineers the kinds of companies or organizations you think you’d like to work for (or create or manage or own)? Does the kind of work often done by _____engineers match your goals for yourself and your vision of yourself as an adult in society? Do the details you’ve discovered through library research

suggest a good match between _____engineering and the person in your “Who I Am” section?”

As you present your library research findings, **be sure to clearly articulate how these findings are relevant to the information in your “Who I Am” section. In other words, readers should be able to clearly follow the emerging parallels and points of intersection (or divergence) between the person in the “Who I Am” section and the actual working conditions, circumstances, and possibilities of _____engineering.**

YES, I AM (GOING) WHERE I SHOULD BE (GOING)

In this section, you will revisit your introductory hypothesis and you will assess, in detail, its validity in light of the personal and library research you have done. In this section, you will explain how and why the field you’ve researched does (or does not) suit you. You will **explicitly show** where and why you see yourself fitting (or not fitting) into that field; you will briefly detail the steps you intend to take towards making a place for yourself in that field. To further clarify and reinforce your assessment of the validity of your hypothesis (and to provide an engaging, high-impact conclusion) you might provide a concretely detailed picture of yourself at work as a _____engineer sometime within the next decade or two.

FORMATTING

Format your paper according to the instructions in the Formatting Guidelines found via the link on the 0011/0711 Writing Projects page. The format specifics for this paper are exactly the same as they were for Writing Assignment #2.

REFERENCES

Your References section should be formatted like the references below, which is the same References formatting you used for Writing Assignment #2. Further examples can be found in Presenting References document found via the link on the 0011/0711 Writing Projects page.

[1] Author’s Last Name, First name. Date of publication. “Article Title.” *Publication Title* Volume # (if available), pp.

[2] Author’s Last Name, First name. Date of publication. “Article Title.” *Publication Title* Volume # (if available), pp.

[3] Author’s Last Name, First Name, Date, of publication or most recent update. “Article Title,” *Publication Title*. URL. p.2. Date of access.

ADDITIONAL RESOURCES

Present any additional resources consulted. Format these resources as you have formatted your References, except Additional Resources are listed in alphabetical order by author’s last name.

ACKNOWLEDGMENTS

Be sure to include an Acknowledgments section; an Acknowledgments section is required.