

**Distributed:** Lesson 1

**Due:** Draft 1 is due NLT 2359 Monay 9 September 2024

**Point Value:** 200

**Resources:** This document, course web site links, and various internet sources as needed


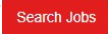
**Assignment:** Write a one-page resume. (The one-page limit is required.)

Your task is to write a one-page resume that demonstrates (1) professional engagement, (2) recognition of chemical engineering skills, (3) intellectual growth in chemical engineering, and (4) written communication skills. Your resume will be assessed with the rubric at this [link](#).

A resume is a one-page document providing a concise overview of your professional qualifications. A resume normally includes relevant experience, skills, education, experience, and qualifications. Additional content can also include relevant coursework, hobbies and interests, awards, and certifications. Along with your contact information, these topics also form the main sections of the resume. Resumes are typically used to help find employment, but that is not the purpose of this assignment. Resumes also demonstrate introspection and self-awareness. In other words, a resume is a personal inventory of professional skills and projects. *The purpose of this assignment is for you to reflect on your skills and experience, describe them, and allow feedback to develop areas you may have overlooked.*

Resumes are always developed for a specific target audience and must relate to the reader and his or her organization. A resume is required if you are seeking employment as an engineer in a commercial chemical company, in a government ammunition plant, in a government research lab, as a rotating faculty member in the Chemistry and Life Science Department, and so on. In any of those cases, you must *highlight your skills as a chemical engineer in a way that relates to the organization*. If you are an officer seeking a branch transfer, you highlight those skills and attributes that make you attractive to the branch you are interested in. In each case, you highlight relevant skills and experiences.

To decide what is relevant, you must decide who your target audience is. To that end, role-playing is required for this assignment. You must write your resume to address obtaining an internship or entry level position as a chemical or chemical process engineer. To assist with this, two pre-approved example job posting sites follow below:

- Go to the Eastman Chemical website at <https://www.eastman.com/Pages/Home.aspx> and click the menu button(  ), then click “Careers.” In the “search by keyword” field, enter “chemical engineer” and then click the search jobs button (  ). Using the quotes around the search term will narrow the results considerably. Normally, several different chemical engineering jobs appear. Use any one of them to focus your resume. At the time

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this document was written, 10 chemical engineer jobs were posted here, but this changes week to week.

- A second approved source of job information is Ashland (chemical company). Go to the Ashland website at <https://www.ashland.com/> and click “About,” then “Careers,” then “Careers Overview.” Then click “Apply Now” and search for a suitable chemical engineering job posting. Again, normally, several different chemical engineering jobs appear on this site. Use one of them to focus your resume.

At the time of writing of this document, there many chemical engineering jobs posted at these two sites. However, in case this changes, some sample job postings for chemical engineering and related jobs are included at the end of this document. Other approved sites for searching for postings include Dow Chemical (<https://corporate.dow.com/en-us/careers/jobs.html>) or DuPont (<https://careers.dupont.com/us/en>). **You are not authorized to use any other sources without specific instructor permission.**

Feel free to use any appropriate sample resumes from the internet for guidance. It is easy to find examples to get started. However, be careful. Remember that resumes look very different for people at different levels in their careers. When you are reviewing resumes on the internet, look for polished resumes at any level, but do not measure yourself against someone who has been working for many years or a civilian student with multiple internships. This can make your assignment more difficult because you are not expected to resemble an experienced professional. But it is more effective to use undergraduate student resumes for your comparison. I have linked a good sample resume to the course website.

*Target Audience:* Your resume will be read by various people, including faculty, advisory board members, and ABET evaluators. Remember you are presenting yourself to a community of professionals. You should “polish” your document as if you are getting your skills ready for “SAMI.” Grading will be based on the rubric attached to the course web site. Be sure to read the rubric carefully since the levels will be rigorously applied to determine your grade. Carefully note that the content required in the rubric is somewhat different from a standard resume, and your resume must address the rubric.

There are many additional useful resume development tools for you to use. One is the “Resume Assistant” in Microsoft Word. This tool is not required, but if you do use it, be sure to enter “Engineer” in the “Role” field and “Chemicals” in the “Industry” field. You would then choose an appropriate job descriptor such as engineering assistant, engineering technician, or engineering consultant. Avoid the more senior roles as discussed above. In addition, there are many resume developer apps available on the internet or on your phone. I have used “Intelligent CV” on my Samsung phone, free from the Play Store. The name is somewhat misleading in the sense that this exercise is not to write a CV. CVs are not resumes. CVs generally do not have a page limit, and normally provide a chronological listing of prior jobs and accomplishments. They are normally used to find academic jobs or scholarships.

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As an additional resource, I have attached an excerpt from an undergraduate university career center to the course website. This document that has many useful tips on how to get organized, craft your document, and format the finished product. I strongly recommend reading through this document, especially the sections on transferrable skills and style tips.

ATTACHMENTS – SAMPLE JOB POSTINGS

Two job postings can be found on the following four pages.

## PRODUCTION ENGINEER (Sample Posting from Ashland)

USA – Hopewell - VA

Ashland Specialty Ingredients, GP

Are you the kind of person that is always thinking, sketching, seeking, and adjusting? Who needs to understand how things work and then figure out how they can work better? Are you a passionate, tenacious, solver who loves to work with others who share your drive? Are you positive, constructive, and ingenious?

Are you always solving?

Then we'd like to meet you and bet you'd like to meet us.

Ashland has an exciting opportunity for a Production Engineer to join our Specialty Ingredients business at our Hopewell, VA location. This is a very visible, significant role within the Company and the CMC function. This position will report to Operations Manager.

**The responsibilities of the position include, but are not limited to, the following:**

- Utilizes Lean manufacturing techniques/tools for identification and implementation of continuous improvement projects
- Analyzes production and quality data to determine optimum operating conditions
- Utilize process techniques to meet customer requirements
- Utilizes Lean manufacturing tools and techniques to improve product quality
- Resolve production problems
- Assist in creating and implementing new strategies to improve process efficiency
- Provide on-time delivery of products
- Maintain environmental compliance while continually pursuing waste minimization
- Determines root cause of chronic operating problems
- Provides technical support for capital projects including investigating new equipment
- Investigates alternative raw materials for cost and quality improvements
- Investigates opportunities to improve plant through-put and capacity

**In order to be qualified for this role, you *must* possess the following:**

- 1-5 years' chemical plant manufacturing experience
- Bachelor of Science Degree in Chemical Engineering
- Must be authorized to work in the US

**The following skill sets are *preferred* by the business unit:**

- Previous experience with Control Systems
- Lean Six Sigma
- Previous experience in Production Operations
- Hazard Analysis - HAZOP, PHA, Good Manufacturing Practices, ISO Systems
- Team Player with excellent written and oral communications
- Proven data analysis and problem-solving skills
- Proven planning and organization skills
- Execute projects as part of a team, as a team leader or independently
- Proven self-starter with urgency for delivering results

In more than 100 countries, the people of Ashland LLC. (NYSE: ASH) provide the specialty chemicals, technologies and insights to help customers create new and improved products for today

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and sustainable solutions for tomorrow. Our chemistry is at work every day in a wide variety of markets and applications, including architectural coatings, automotive, construction, energy, personal care and pharmaceutical. Visit [www.ashland.com](http://www.ashland.com) to see the innovations we offer.

At Ashland our vision is to be a leading, global specialty chemicals company whose inspired and engaged employees add value to all we touch. In fact, our people, employees, customers and vendors define who we are. They are the driving force behind everything we do.

Not only do we value our customers but we value our employees, and we work to offer them a dynamic and challenging environment. We hold ourselves to high standards at Ashland, and we value integrity and honesty.

Ashland has a history of attracting the best people and keeping them. The reasons are simple: industry competitive salary and benefits, pay-for-performance incentive plans and a diverse work environment where employees feel challenged and valued. People come to Ashland and stay. As a growing Fortune 500 specialty chemicals company, we offer opportunities for development and advancement throughout our global organization. Our values define who we are and what we care about as a company. If you are looking for a relationship with a company instead of simply a job, this may be a great fit.

Ashland is proud to be an Equal Opportunity Employer Minorities/Women/Veterans/Disabled/Gender Identity/Sexual Orientation.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, gender identity, sexual orientation, national origin, or protected veteran status and will not be discriminated against on the basis of disability. NOTE: We do not accept resumes from external staffing agencies or independent recruiters for any of our openings unless we have a signed recruiting agreement in place to fill a specific position.

## Process Engineer (Sample Posting from DuPont)

Location: Hanko, Southern Finland, Finland Category Engineering Job

Job Type: Entry Level (MAN00001716)

### Job Description

DuPont Nutrition & Biosciences is a USD 6.2 billion global business and one of the world's largest producers of specialty ingredients, developing and manufacturing solutions for the global food & beverage, health & bioscience and pharma markets. With more than 10,000 employees, 70+ manufacturing sites and 25+ R&D centers across the world, N&B is on a mission to provide essential innovations from highly engineered products and naturally sourced ingredients to shape industries and everyday life. More information can be found at <http://biosciences.dupont.com>

DuPont Nutrition & Biosciences - Hanko plant is producing a variety of enzyme products by fermentation, recovery and formulation. We're looking for a

### PROCESS ENGINEER

who believes that working together is the way to solve challenges and accomplish common goals.

Your responsibilities will include:

- Process performance and continuous optimization, troubleshooting and technical support for your process area
- New product introductions to the plant together with global teams and R&D
- Analysis of process data, compiling results and progress in clear reports for the global project teams
- Process safety and sustainability in your process area are an integral part of your job
- Investment project support for example creating technical requirement specifications for projects.
- Participating in process and equipment design, developing automation functional descriptions, and commissioning and start-up activities.
- You will participate in global knowledge teams that collaborate globally and drive technology development across production sites

### Job Qualification

Ideally, you are a chemical or biochemical engineer with strong skills in process technology. You can be either an entry level candidate or a more senior expert, depending on the suitability & experience.

Qualifications:

- M.Sc. or B.Sc. in Biochemical, Chemical or Process engineering
- Previous working experience preferably from industry
- Strong skills in process technology
- Knowledge of energy technology (preferably) & statistical tools
- Analytical, entrepreneurial, systematic and results driven mindset
- Fluent oral and written skills in Finnish and English is required
- Good IT skills
- Willingness to travel occasionally

Additionally;

- You prefer working together with people around you
- You care and want to make processes safer and more efficient
- You like to work in a changing environment with speed and agility

We offer you a permanent position in an exciting international company with opportunities to grow and develop, challenges where you need to utilize your technical knowledge & experience, and great opportunities to learn more.

**About DuPont**

For additional information on our unbridled commitment to deliver essential innovations that enrich people's lives, enable sustainable development and foster human potential for generations to come.

Please access the following link to better understand & appreciate DuPont's Journey. Coupled with core values and excellent compensation & benefits... Together, we're turning possibilities into real world answers that help humanity prosper!

DuPont is an equal opportunity employer. Qualified applicants will be considered without regard to race, color, religion, creed, sex, sexual orientation, gender identity, marital status, national origin, age, veteran status, disability or any other protected class. If you need a reasonable accommodation to search or apply for a position, please visit our Accessibility Page for Contact Information.

For US Applicants: See the "Equal Employment Opportunity is the Law" poster at:

<http://www.dol.gov/ofccp/regs/compliance/posters/pdf/eeopost.pdf>

For our U.S. Affirmative Action Policy, click [here](#).