

**PRAIRIE VIEW A&M UNIVERSITY
ROY G. PERRY COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
GNEG 1010: ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT
FALL 2021**

- I. COURSE DESCRIPTION IN ABET FORMAT**
- II. ASSESSMENT RESULTS FOR CURRENT AND PAST THREE PERIODS**

III. HOMEWORK ASSIGNMENTS

Summary of Topics covered by Homework

Original Homework Questions & Master Solution/grading scheme used

Above Average (Graded original work)

Average (Graded original work)

Below Average (Graded original work)

Course Description in ABET Format

1.	Course number and name:	GNEG 1010: Engineering Professionalism and Career Development
2.	Credits and contact hours:	0 credit hours and 1 contact hour
3.	Instructor's or course coordinator's name:	Curtis Fields and James Gordon
4.	Text book: Title:	None
	Author:	
	Publisher, Year & Edition:	
	a. Other Supplemental material	
5.	Specific course information	
	a. Brief description of the content of the course (catalog description)	This course prepares students for a professional career in engineering. The primary emphasis is on soft skills, career development, career planning, and expected workplace behaviors in the engineering field. Exercises and activities in this class help students immediately apply professionalism and career concepts to more fully take advantage of internships, co-ops, and build relevant connections between their academic studies and their professional careers.
	b. Prerequisites or Co-requisites	Co-requisites: CHEG 1101, COMP 1101, CVEG 1101, ELEG 1101 or MCEG 1101
	c. ** Indicate whether a required, elective, or selected elective (as per definition provided) course in the program	Required
6.	a. Specific goals for the course specific outcomes of instruction (e.g. The student will be able to explain the significance of current research about a particular topic.) <i>Students will be able to :</i>	b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course. <i>The specific goals for the course specific outcomes listed on the left column will address the following student learning outcomes:</i>
	1. Create a professional resume.	

		No outcomes were measured for this course.
	2. Write a professionally formatted email.	
	3. Perform an interview.	
	4. Perform an elevator pitch.	No outcomes were measured for this course.
7	Brief list of topics to be covered	Resumes (4 hours) Cover Letters (1 hours) Elevator Pitches (1 hours) Job/Internship Searches (2 hours) Time Management/Organization (1 hours) Interviews (3 hours) Career Planning (3 hours) Corporate Culture (1 hour) Personal Branding (2 hours) Soft Skills (4 hours) Goal Setting (3 hours)

II ASSESSMENT RESULTS FOR CURRENT AND PAST THREE PERIODS

Program Outcomes Assessed in this course: No outcomes are assessed for this course.

**ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT
FALL 2021**

Title of Assignment: HOMEWORK (RESUMES)

TOPICS COVERED IN RESUMES

- 1. How to create a professional resume for the Engineering industry**

ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT

FALL 2021

Instructions

You will need to create a resume from scratch and submit it as a Word document.

Below are some basic guidelines. These are not all-inclusive, see the deductions section for more details.

1. Do **NOT** use a template or a PDF
2. Must use Times New Roman font
3. The smallest font size allowed is 12
4. No margins below .5
5. Only 1 font color is allowed (black)
6. You should only include College level education (anything from an Associate Degree level upwards)
7. This document **can only be 1 page**
 - a. Be careful- **even a blank 2nd page is unacceptable**
8. There should not be anything in the header or footer of the document
9. The entire document should be either single spaced or double spaced
10. Good formatting is a must
 - a. A blank line of space between each major section
 - b. A blank line of space between each job/volunteer experience
 - c. No paragraphs
 - d. No bullet points longer than 2 lines
 - e. No cliffhangers (aka one or two words hanging below a full sentence)
 - f. Good punctuation, grammar, and spelling are a must
 - g. Consistency (ex: if you have periods at the end of most bullet point sentences, then all of them must have periods at the end of them or vice-versa)
 - h. Do not include a summary, objective statement, or mission/personal statement
 - i. Skills listed under a Skills section should only be hard skills. No soft skills listed in that section (ex: do not include “leadership”, “fast learner”, “time management”, etc.)
 - j. Job/volunteer/leadership headings should follow the format seen in the sample resume.
 - k. Education should follow the format seen in the sample resume.

Point Deductions

1. 5% will be deducted for each grammar, spelling, or punctuation errors (this includes capitalization, spacing, and indentation errors)
2. 5% will be deducted for each inconsistency (aka you had all periods but missed adding one on a bullet point)
3. 5% will be deducted for each cliffhanger
4. 5% will be deducted for each bullet point that is longer than 2 lines
5. 5% will be deducted each time you write a paragraph instead of a bullet pointed sentence
6. 5% will be deducted for each job/volunteer/leadership role not using the sample resume format for the heading

7. 5% will be deducted for each time a state is not abbreviated
8. 5% will be deducted for listing a language under skills if you are not fluent in it
9. 5% will be deducted for listing a job title as a bullet point under a job entry
10. 10% will be deducted if you do not use the sample resume format for education
11. 10% will be deducted if you add a summary, objective, or mission/personal statement
12. 5% will be deducted if you add high school education
13. 10% will be deducted if you use a different font color
14. 5% will be deducted if you use a different font style than Times New Roman
15. 5% will be deducted for each blank space you should have added between sections or jobs
16. 5% will be deducted for each soft skill added under the Skills section
17. 5% will be deducted if you use margins any smaller than .5
18. 5% will be deducted if you use any other spacing format than single or double
19. 5% will be deducted for each time you use the first person (I, me, we, my, etc.)
20. 5% will be deducted for each incorrect tense usage (for example using past tense on a job that you currently work for would be incorrect)
21. 5% will be deducted if you use an email address other than Gmail, Outlook or your PV student email address
22. 100% will be deducted if you put your references on the resume (aka you get a 0)
23. 100% will be deducted if you use a template or use a PDF
24. 100% will be deducted if you have more than 1 page (and that includes a blank 2nd page)
25. 100% will be deducted if you do not put your name on the resume

ABOVE AVERAGE

Education

Prairie View A&M University, Prairie View, TX
Bachelor of Science in Electrical Engineering

Expected Graduation 2024
GPA 3.0

Lone Star College, Cypress, TX
Associate of Science

Fall 2018-Spring 2021
GPA 3.0

Relevant Courses: Electrical Circuits, Computer Applications in Engineering, Engineering Graphics I

Engineering Projects

Coin Filter Project (Design Class)

Fall 2019

- Designed a tool to filter pennies, nickels, dimes and quarters
- Utilized CAD software to analyze and finalize dimensions
- Fabricated the tool using on campus 3D printers

Work Experience

Best Buy
Sales Advisor

Cypress, TX
Sept 2018-Present

- Responsible for over \$600,000 in sales revenue
- Working with and delegating technicians to service clients' specific need
- Handling all aspects of a sale, from welcoming client to completing a transaction

MakeLab
Brand Ambassador

Toronto, CAN
Feb 2018-Aug 2018

- Learned and operated laser CNC machines and 3D printers
- Collaborated with coworkers on site, and set up the activation in a timely manner
- Taught clients how the machines worked and supplied them with gift tokens

Skills

Programming Languages (Matlab, C++), AutoCAD, 3D Printing, Microsoft Office

Grade: 90%

AVERAGE

Education

Prairie View A&M University, Prairie View, TX
Bachelor of Science in Mechanical Engineering
Minor in Psychology

Expected Graduation 2025

Relevant Courses: Fluid Dynamics, Robotics, Environmental Science, Elements of Mechanical Design, Manufacturing Processes

Leadership Experience

Team Captain Varsity Basketball Team
Coached Varsity Basketball Team

Houston, TX
Summer 2021

- Lead team to playoffs 3 years in a row
- Increased overall team communication by 75%
- Increased number of participants at games by 20%

Work Experience

Good Will

May-July 2018

Chick-Fil-A

Summer 2021

- Increased sales by 10%
- Succeeded at working under pressure
- Helped modify cashier system

Organizations

WEC (Westfield Engineering Club)
NHS (National Honor Society)

2019
2020-2021

Engineering Project(s)

WF Design Project

Fall 2019- Spring 2020

- Designed a 6-wheel train along with train tracks that went up to 10 mph
- Modified and designed 4in screw through CAD
- Produced photorealistic animation of 3in wheels spinning

Skills

Mechanical CAD, Solidworks, Auto CAD, MS Office

Grade: 70%

BELOW AVERAGE

Education

Texas State University San Marcos, TX

Bachelors of Science in Chemistry

August 2020-May 2021

Prairie View A&M university Prairie View, TX
Bachelors of Science in Chemical Engineering

Expected graduation 2024

Work experience

Texas State University (College of Science Advising center)

San Marcos, TX

Administrative Aide

Fall 2020-spring 2021

- Scheduled appointments and maintained calendars
- Created and maintained filing systems, both electronic and physical

Maximum Research
Interviewer

Cherry Hill, NJ

July 2021-Present

- Conduct surveys via Phone and internet
- Contact individuals to be interviewed at home, place of business, or field location, by telephone
- Complete daily interview quotas

Volunteer experience

Lonestar College

Tomball, Tx

Library Aide

September 2015- June 2020

- Organize and reshelve books
- Master the library system
- Decorate the library for any given event
- Clean supplies and equipment

Organizations

AIChE (American Institute of Chemical Engineers)

2021- Present

Spectrum

2021- Present

Skills: Adobe software suite, Microsoft office, Digital communication

Grade: 0%

**ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT
FALL 2021**

Title of Assignment: HOMEWORK (PROFESSIONAL EMAILS)

TOPICS COVERED IN PROFESSIONAL EMAILS

- 1. How to create a professionally formatted email**

ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT FALL 2021

Instructions

Write up 2 professional looking emails. They should be put into one Word Document. Each email will go on a separate page (so you should have 2 pages).

You will need a Thank You Email, thanking an interviewer for their time in an interview.

You will also need a Meeting Request Email, requesting an appointment time with someone in your company to discuss and plan the details for an upcoming event (make up whatever name you want for the event).

Both emails will need to include the following:

1. An email Subject Line that is appropriate (concisely tells them what the email is about)
2. The name of who you're sending the email to (Dear Ms./Mr. Blank)
3. A signature line with your contact information (example below)

Sincerely,
Generic Namely
000-000-0000
email@email.com

4. Spacing (no large blocks of unbroken text)
5. Correct grammar, spelling, and punctuation
6. Size 12 Font, Times New Roman

The Meeting Request Email should also include the time-zone when you mention potential meeting times. Our local time-zone here in Texas is CST (Central Standard Time).

Point Deductions

You can lose points for the following:

1. 5% will be deducted for each grammar, punctuation, or spelling error (this includes spacing, indentation, and capitalization errors)
2. 10% will be deducted if you only have a single block of text
3. 10% will be deducted if you do not use size 12 font
4. 10% will be deducted if you do not use Times New Roman font
5. 5% will be deducted if you do not include a Subject Line
 - a. Side note on subject lines: the first letter of each major word should be capitalized in a Subject Line. For example: "Request a Meeting For Tomorrow" or "Emergency Meeting of Great Importance"
6. 5% will be deducted if you do not include a full signature line with contact information
7. 5% will be deducted if you have multiple font sizes
8. 5% will be deducted if you have multiple font types
9. 5% will be deducted if you do not include the time zone (where appropriate)
10. 100% will be deducted if you use the exact wording from the samples (aka: if you "borrow" wording from the sample letter)

ABOVE AVERAGE

Subject Line: Interview Follow Up- Thank You

Dear Ms. Interviewer,

Thank you for presenting this opportunity to showcase my professional talents and expertise. Extremely enthusiastic about this field of work, I think that the requirements of the position you have outlined in the interview is very much in line with my current capabilities.

Optimistic about our future terms of communication, I look forward to becoming integrated into the team.

Best,

Grade: 100%

AVERAGE

Subject line: Thank you, Mr. Green

Dear Mr. Green,

Thank you for having me come in yesterday and discuss the plans for my new facility investment.

I hope after a further discussion with the company I can come back and showcase more of my skills to you. I really appreciated the time you gave me and hearing about the wants and needs here.

I feel like I can be a big contribution to this company and be a big help! I hope to hear from you again soon!

Grade: 85%

BELOW AVERAGE

Subject Line: Meeting Request for Nick Fury

Dear Agent Coulson

Hello, Agent Coulson as you know I trained with Nick yesterday. I would like to schedule to see Nick again, to see if I could join the Avengers and also personally work for Nick Fury for solo missions.

I'm available on Monday from 3:30 pm - 4:00 pm or Friday 12:30 pm – 2:30 pm please let me know if these times are okay if not, please email me a calendar of available times and I can choose the time better suited for me and you.

Thank you again if you have any further questions please don't hesitate to call or email me.

Sincerely,

Grade: 50%

**ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT
FALL 2021**

Title of Assignment: HOMEWORK (JOBS IN YOUR MAJOR)

TOPICS COVERED IN JOBS IN YOUR MAJOR

- 1. Find and identify types of jobs within their field of study (major)**

ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT FALL 2021

Source Sites

www.myplan.com

www.onetonline.org

Instructions

Use the above Source Sites to:

1. List your major
2. Come up with a list of 10 job titles you could have with your major
3. Come up with a list of 5 skills/abilities (hard or soft) people in this major need
4. Come up with the average starting salary for an entry level position in this major
 - a. Indicate whether this is the average for Houston, Texas, or the US as a whole
 - b. Use O*Net's "Wages and Employment Trends" section near the bottom of the page on the job you are interested in
 - c. Put in Texas for "State Wages" and then click Go
 - d. This will take you to a page with charts and a breakdown of average salary for the US, Texas, and various regions in Texas
 - e. To get the rough average starting salary, use the lowest number on the chart for a given area which will be called "Annual Low (10%)"
 - f. Be sure to list what the specific job title was (Mechanical Engineer, Software Programmer, etc.) so I can verify the starting salary

Be sure to list which site you found each item on. See below for a short example.

Example

Marketing Major

Job Titles

1. Marketing Specialist (myplan.com)
2. Sales Agent (myplan.com)
3. Marketing Manager (O*Net)
4. Advertising and Promotions Manager (O*Net)

Skills and Abilities

1. Critical Thinking (O*Net)
2. Communications and Media (myplan.com)
3. CRM Software (O*Net)
4. ERP Software (O*Net)

Average Salary

\$43,230/year is the average entry level starting salary for a Sales Agent in the Houston area (O*Net)

Point Deductions

1. 5% will be deducted for each time you do not list your source
2. 10% will be deducted if you do not list your major
3. 5% will be deducted for each skill or job title you do not list
4. 20% will be deducted if you put average salary instead of average starting salary (aka: Lowest 10%)
5. 10% will be deducted if you do not put the specific job the starting salary is for
6. 10% will be deducted if the document is not in Times New Roman
7. 10% will be deducted if the document is not in size 12 font
8. 10% will be deducted if you do not put a blank line of space between each section
9. 5% will be deducted each time you use a site other than the 2 source sites provided

ABOVE AVERAGE

Chemical Engineering Major

Job Titles

1. Chemical Engineer (myplan.com)
2. Environmental Engineering Technicians (myplan.com)
3. Chemical Technicians (myplan.com)
4. Chemical Plant and System Operators (myplan.com)
5. Nanotechnology Engineering Technicians (myplan.com)
6. Food Scientists and Technologists (myplan.com)
7. Chemical Equipment Operators and Tenders(O*Net)
8. Biomedical Engineers (O*Net)
9. Bioengineers (O*Net)
10. Engineering Teachers (O*Net)

Skills and Abilities

1. Critical Thinking (myplan.com)
2. Complex Problem Solving (myplan.com)
3. Analytical or Scientific software (O*Net)
4. CAD Software (O*Net)
5. Data Entry Software (O*Net)

Average Starting Salary

\$90,790/year is the average entry level starting salary for a Chemical Engineer in the Houston/The Woodlands/Sugar Land area (O*Net)

Grade: 100%

AVERAGE

Computer Science Major

Job Titles

1. Computer and information research Scientist (myplan.com)
2. Data Scientist (O*Net)
3. Web Developer (myplan.com)
4. Software Developer (O*Net)
5. Network Architect (myplan.com)
6. Computer and Information Systems Managers (O*Net)
7. Computer Programmer (O*Net)
8. Computer Systems Analyst (O*Net)
9. Computer User Support Specialist (O*Net)
10. Information Security Analyst (O*Net)

Skills

1. Creative mind (myplan.com)
2. Web platform development software (O*Net)
3. ERP software (O*Net)
4. Attention to detail (myplan.com)
5. Data base management system software (O*Net)

Average Salary

\$67,640/year is the average entry level starting salary for a Software Developer in Texas. (O*Net)

Grade: 90%

BELOW AVERAGE

Major

Computer Science

Job titles

Web developer
Systems analyst
Business analyst
Product manager
Network architect
Software engineer
Software developer
Full-stack developer
Engineering manager
User interface designer

Skills and abilities

good math skills
very good computer knowledge
ability to be very accurate
ability to diagnose problems
and ability to organize and classify large amount of information and data

Average Salary

\$56,870/year is the average entry level starting salary for computer programmers

Grade: 10%

**ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT
FALL 2021**

Title of Assignment: HOMEWORK (JOB SEARCH)

TOPICS COVERED IN JOB SEARCH

- 1. Find specific job/internship listings within field of study (major)**

ENGINEERING PROFESSIONALISM AND CAREER DEVELOPMENT FALL 2021

Source Sites

www.monster.com

www.indeed.com

www.careerbuilder.com

www.linkedin.com

www.usajobs.gov

Instructions

1. Use the above websites to find 5 jobs you could apply for with a degree in your current major.
2. You must use at least 3 different sites (for example you could use Monster, Indeed, and CareerBuilder but you could not use just Monster for all 5 jobs).
3. List the name of each job along with the company name and the link to the page.

See below for an example of one entry (the link is expired, but you don't need it to understand how the entry is laid out). You will need 5 entries like this and they should be numbered. There should also be a blank line of space between each entry.

Example (the below link does not work, this is only a sample)

1. Marketing Specialist, Zimmer Biomet
<https://job-openings.monster.com/marketing-specialist-658607-virtual-office-al-us-zimmer-biomet/219140946>

Point Deductions

1. 5% deduction for using a job site not from the above Source Site list
2. 5% deduction each time you do not include the company name
3. 5% deduction each time you do not include the job title
4. 5% deduction for each time you do not include a source (website)
5. 10% deduction for not using Times New Roman
6. 10% deduction for not using 12-point font
7. 10% deduction for not having a blank line of space between each entry

ABOVE AVERAGE

1. **Data Analyst- job post, AllianceHCM**
<https://www.indeed.com/jobs?q=computer%20science%20degree&l=houston&vjk=3abc771b5baa45c9&advn=4452219848060039>
2. **Business Intelligence Analyst, AIG**
<https://www.indeed.com/jobs?q=computer%20science%20degree&l=houston&vjk=f45c57dc592660c4&advn=9685246735664481>
3. **Software Developer in Test (SDT), LPL Financial**
<https://www.monster.com/jobs/search?q=Java+Software+Engineer&where=Texas>
4. **Java Software Developer, Hyponi**
<https://www.monster.com/jobs/search?q=Java+Software+Engineer&where=Texas>
5. **Computer Scientist, Department of the Navy (Naval Air Systems Command)**
<https://www.usajobs.gov/GetJob/ViewDetails/609328200>

Grade: 100%

AVERAGE

Job Search

1. Controls Engineering, Randstad USA, DeSoto, TX
2. Automation Engineering, Randstad USA, Irving, TX
3. Mechanical engineer GPAC, Minneapolis, MN
4. Associate Mechanical engineer, Northrop Grumman, Northridge, CA
5. Graduate Mechanical Engineer, Worley, Houston TX,

<https://www.monster.com/jobs/search?q=Mechanical+Engineer&where=Texas&page=2>

<https://www.indeed.com/jobs?q=mechanical%20engineer&l&vjk=ae278704a1c1bc3d&advn=1019644812607520>

<https://www.careerbuilder.com/jobs?keywords=Mechanical+Engineer&location=>

Grade: 80%

BELOW AVERAGE

Job Searches

1. [linked.com/job/search/jobs.disneycareer.com/job/-/-/391/1976443?cid=14187](https://www.linkedin.com/job/search/jobs.disneycareer.com/job/-/-/391/1976443?cid=14187)
2. careers.ibm/job/13814073/security-and-compliance-focal-remote/?codes=SN_linkedln
3. usajobs.gov/GetJob/viewDetails/61706690
4. usajobs.gov/GetJob/viewDetails/617833600
5. [careerbuilder.com/job coder](https://careerbuilder.com/job/coder)

Grade: 50%