

ENGINEERING 23

Finding an Industry Internship Seminar

William Herrera, M.Ed.

Director of Undergraduate Internship Program

November 16, 2021 Week 8: Content Slides



Evaluating Offers

Week 8 Agenda

Content Videos

- 1. Evaluating Offers (40 min)
- 2. FOrage and Parker Dewey Tutorial

Class Activities

- 1. Week 7 HW: Reflection
- 2. Content Video Reflection: Evaluating Offers
- 3. Sample Career Action Plan Overview
- 4. Preview Week 8 HW Assignments

Week 7 HW

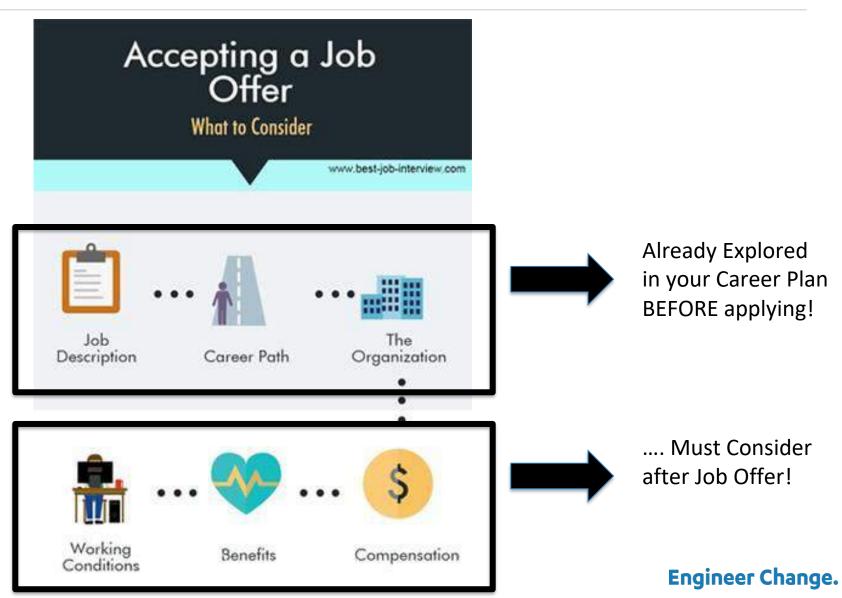
- 1. Read: Career Guide: "Evaluating Job Offers" section
- 2. Begin first draft of Career Action Plan (will spend some time reviewing drafts in class next week)
- 3. Use the Technical Skills resources provided to gain new skill(s)
- 4. Fill out the Technical Skills Questionnaire on CCLE

(DUE Week 8)



Going Against Your Instinct

..... and just accepting the 1st offer



Credit: www.best-job-interview.com

Working Conditions

- 1. Evaluate what kind of supervisor/director will you be reporting to
 - Someone who is indifferent?
 - Someone who is willing to help/guide you along the way?
 - Must match your ideal working style!
- 2. Is your team good for you?



Compensation = Aligning Your Self Worth



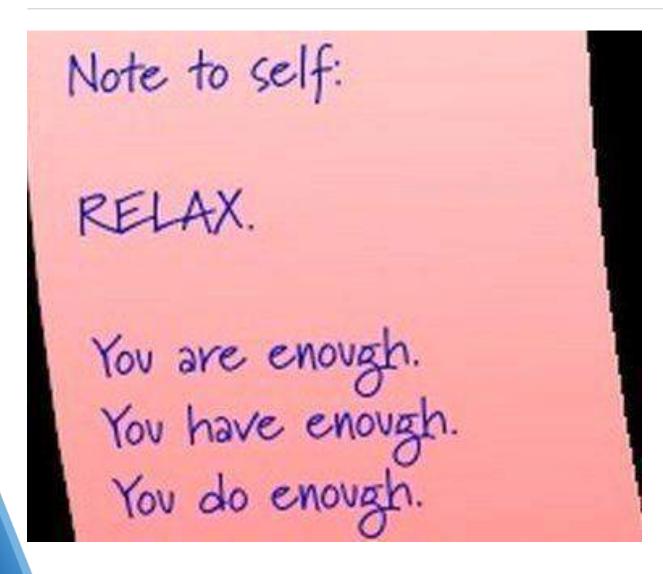
 Your goal is to have your job, boss, and company have an aligned perception of your VALUE!

Evaluating Pay, Role/Team, & Upward Mobility

- Evaluate whether or not the pay is suitable for your assets and/or your self worth?
- Are there bonuses? How are bonuses distributed?
- Is the scope of job suitable for you? What is your title? How do you fit into the team?
- Policy regarding promotions. How can you move up?



Only You Can Define What is Enough for You

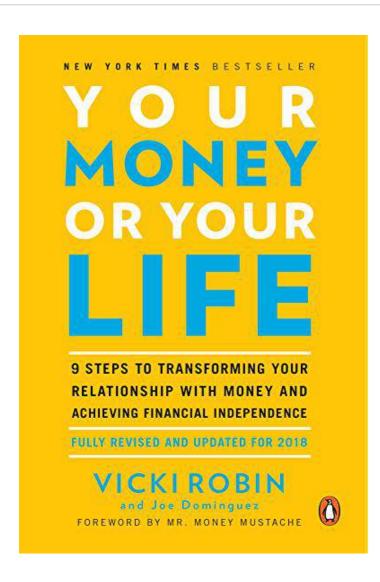


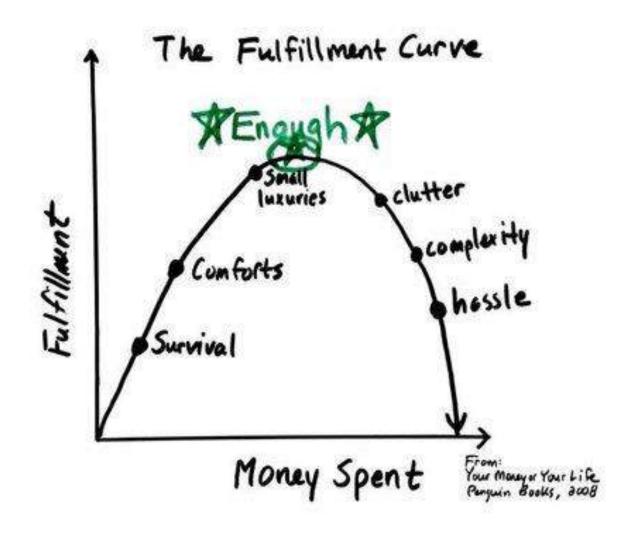
- -Is a bike enough for you?
- -Is a used Prius enough?
- -Is a Tesla enough?
- -Is a BMW i-8 enough?
- -Is a private helicopter enough?
- -Is a private jet enough?

I think you get the point...... Enough can BE INSATIABLE!

Go Back to YOUR IKAGAI. Only you can define was is ENOUGH for YOU!

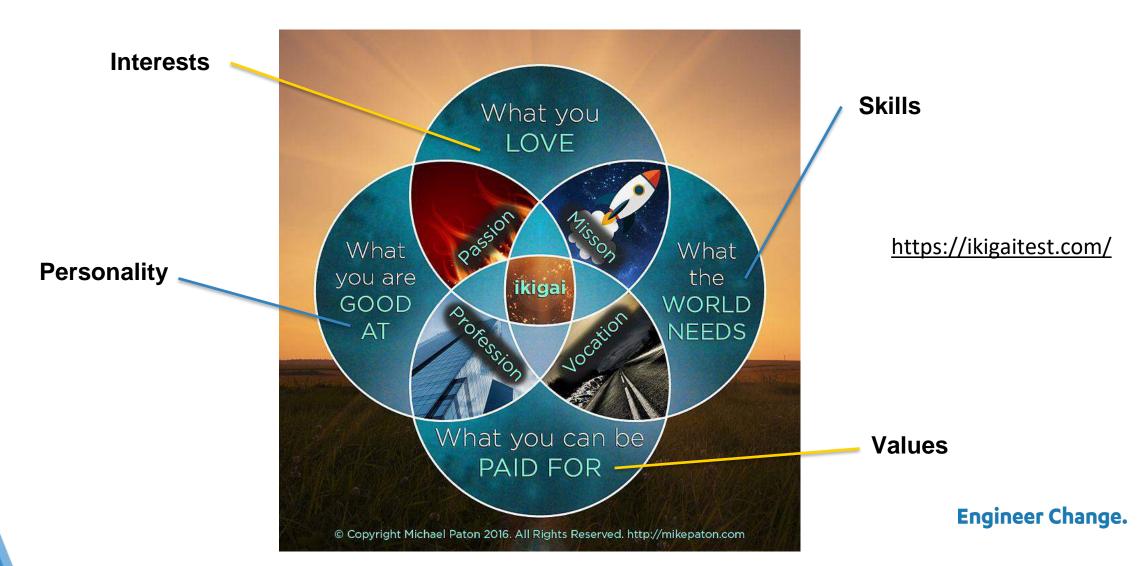
Recommended Meeting



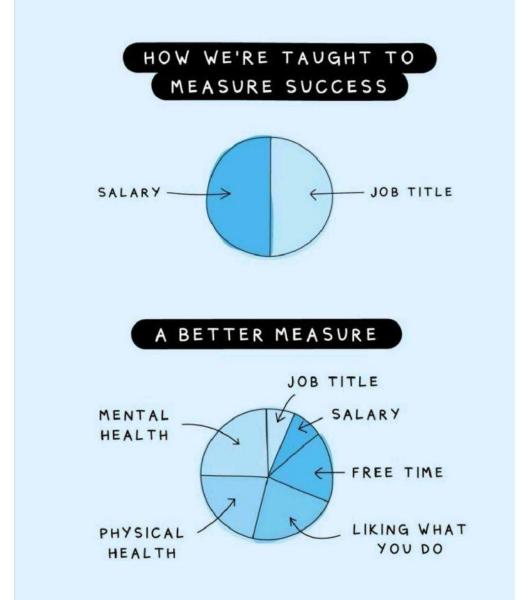


Is the Work Fulfilling?

Aligning Personality, Interest, Skills, Values to find the right Career for you

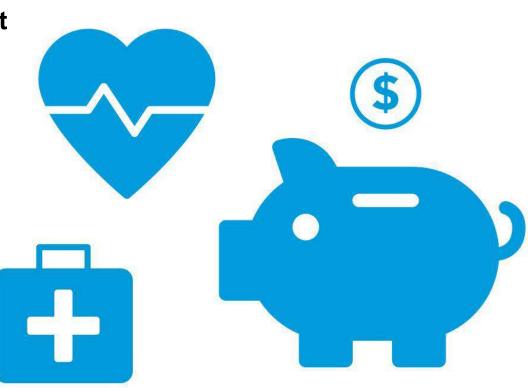


Things I Wish I Knew



Evaluating Other Benefits

- Healthcare
 - Insurance and emergency medical support
 - Insurance for you family member
- Stock Options
- Pay for Graduate School
 - MBA, MS, MA, or PhD
- Work remotely or abroad
- Retirement Plan Matching
 - 401K & 403B: Divert a portion of your pay
 - 459: College Funds







Grading Rubric for Career Action Plan

Grading Criteria	Excellent	Proficient	Developing
INTRODUCTION & CAREER PLAN OVERVIEW (15 PTS) Who are you? Dream Job? Dream company? Overview of your plan What is your dream company?why? Introduce yourself and your background in an intro slide Introduce your interests and you value the most for career	Provide an outline of topics to cover in the PPT Enthusiastically describe your DREAM JOB; detailed info on the job and your preferred company Discuss your interests and how you value a company Provide an overview of your career plan: indicating your end goal in 5 years.	Provide an outline of topics to cover in the PPT Describe your dream job at a preferred company briefly with some details Overview of career plan has no clear directions Briefly discuss your interests and how you value a company	Outline of topics to cover in the PPT is missing Simply stating dream job with no elaborations and details No discussions on your interests Overview of career plan is poorly put together
 Briefly provides an overview of your career plan 	15 PTS	10 PTS	5 PTS
SKILL ASSESSMENT (25 PTS) How to plan on acquiring more skills? What do you plan on doing after UCLA and/or before entering industry? what skills does your dream job require? What skills do you want to acquire after UCLA? Assess your current skills and weaknesses What needs to be done in order to improve your current	Clearly outlines plans after graduating from UCLA Explicitly lists out all the skills you wish to acquire after UCLA Comprehensively lists out skills you currently have Discusses current weaknesses Thoroughly discusses what needs to be done in order to improve and what skills you would like to acquire in the future mention ⅔ skills assessments	Outlines plans after graduating from UCLA Lists out all the skills you wish to acquire after UCLA and all the skills you currently have Current weaknesses are discussed, but no promising approaches to improve on them Lists skills you would like to acquire in the future	Plans after graduating from UCLA is missing or poorly put together Fails to answer the questions listed No thorough discussions on them
weaknesses?	25 PTS	15 PTS	5 PTS

Grading Rubric for Career Action Plan

(20 PTS) What kinds of experience are you expecting to gain or develop? Describe what resources you need to utilize in order to achieve your career goals	Indicates what kind of experience you would like to intern at, including the types of role and responsibility Discuss resources needed to excel in your early stage career Included specific alignments between identified	Indicates what kind of experience you would like to intern at, with no clear discussions on the preferred role and responsibility Discuss resources needed to excel in your early stage career	Fails to discuss a preferred experience No discussions on the resources needed to achieve career goals
	weaknesses and leveraging sources and skills development		*
	20 PTS	10 PTS	5 PTS

Grading Rubric for Career Action Plan

	5-YEAR TIMELINE (15 PTS) A clean graphical representation of your timeline Short concise descriptions of each stage	Timeline is clean and visually understandable Short descriptions are concise and informative Animations clearly illustrated the chronological order of the timeline	0 0 0	Timeline contains all the information for the next 5 years Descriptions are concise Text to visual ratio is not adequate	٥	Timeline does not match previously stated skill development and leveraging of resources
		15 PTS	î	10 PTS		5 PTS
	PRESENTATION (20 PTS) Proper length and dress code Rehearsed/Confidence Clean and organized slides Audience is able to sense the excitement and the passions for his/her career	Presentation looks rehearsed; Confident, comfortable, and prepared Shows excitement and passions for the career Professional dress code Appropriate length (Finished within 30 seconds of targeted 12 minutes) PPT slides are clean and wellorganized Eye-contact with the audience	0 0 0 0 0 0	Introduce yourself to class with enthusiasm Shows excitement for the career Mumbles occasionally Pauses during conversation Satisfactory grammar Able to think on his/her feet by adequately answering questions he/she had not prepared Reading from slides are rarely made eye-contact	0 0000	Presentation seems to lack confidence and excitement/passions Speaks too quietly or loudly Inappropriate language Poor grammar Unable to think on his/her feet Did not make eye-contact with audience and occasionally turns back to the audience
		25 PTS		15 PTS		5 PTS
	Proper citations Images are cited References are included	Images are credited properly References are properly cited Include a slide containing all the references	0	Missing 1 or 2 sources/references Include a slide containing all the references	0	Missing multiple sources/references No slide on all the references
		5 PTS	Ť	3 PTS	\vdash	1 PTS







Career Action Plan

Peter Wang, 4th yr, Chemical Engineer

May 19, 2020

OUTLINE

- PART 1: Introduction/Career Interests
- PART 2: Dream Job
- PART 3: Skill Assessment
- PART 4: Skill Development/Leveraging Resources
- PART 5: Five Year Timeline

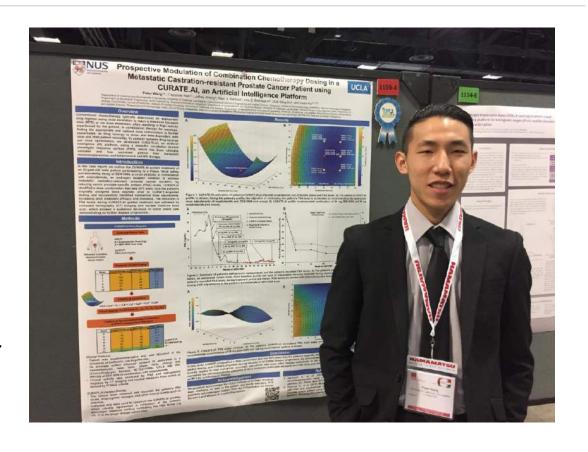


Who AM I?

- Taiwanese international
- Chemical Engineering student
- But really a bioengineer at heart
- Started Pre-Med, but tried research my 1st year

My interests....

- Fell in love with research during my first year
- Doing research ever since, including 3 full time paid research summers!
- Decided on a PH.D. over Med School



Career Interests

My interests....

- Research combinatorial drug therapy for all disease indications
- Nanoparticle-mediated drug delivery platform
- Regenerative medicine

Industry After Research?

- YES! Industry gives me the most freedom in researching what I want
- Work with a group of diverse engineers and scientists who have similar passions for science, technology, and innovations.
- Solve biomedical challenges and impact patients' quality of life



MylkagaiTest.com

Passion....

 Finding solutions to big problems

Mission...

 Applying solutions to improve health

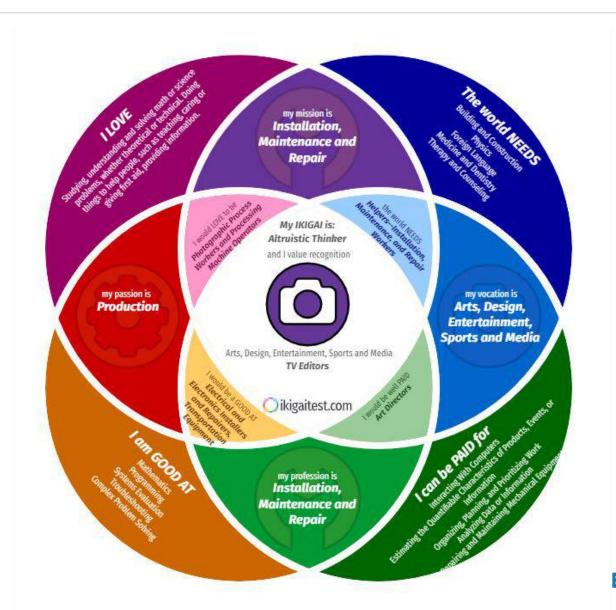
Profession...

 Research and development engineer/ technology officer

Vocation...

 Use technology to build medical devices that improve health

Credit: Mylkagai.test.com





My Dream Job

Chief Technical Officer at a Biotechnology Company

Roche – Pharmaceutical Company

- Swiss multinational healthcare company
- Control American biotechnology company, Genentech
- Products: pharmaceutical & diagnostic

Chief Technical Officer (CT)

- Responsible for all technical and scientific affairs
- Examines short and long term needs and makes necessary investments in technology or IP



Why This Company?

Looking for a company that has the following:

- Roche is the largest biotechnology company in the world with direct administration of multiple diverse biotechnology companies. This allows me to interact with a variety of fields of biotech within one company:
 - Genentech
 - Spark Therapeutics
 - Tusk Therapeutics
 - Flatiron Health
 - 40+ Biotech Companies
- Constantly innovating current technologies that actually impact people's lives
- Roche addresses a lot of current biomedical challenges through inventions
- Diversity and equality are parts of its mission

Post Bachelor's Goal

1-2 Year Goal:

- Start off as a Research Fellow at Roche
- Lead Research & Development (R&D) projects





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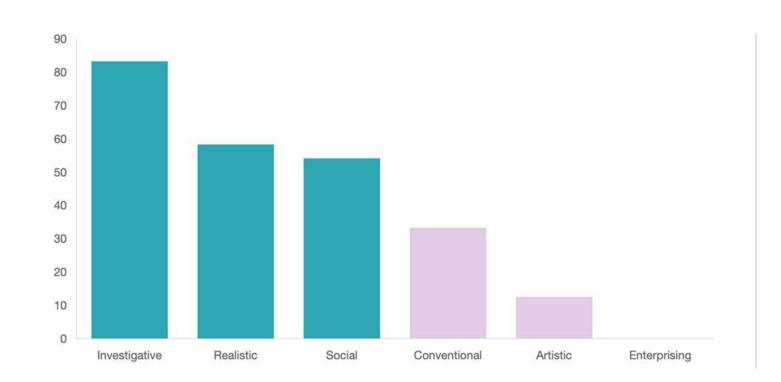
Credit: Roche





Focus 2: Work Interest & Skills Assessment







Occupations:

- Biochemist = Match
- Biomedical Engineer = Match
- Food & Drug Inspector = No Match

Target Skills for Roche

Roche Job Description

Technical Skills:

- Tissue Culture
- Polymerase Chain Reaction
- Gel Electrophoresis
- Western Blot
- ELSIA
- Molecular Cloning
- Flow Cytometry
- Mass Spectrometry
- Confocal Spectroscopy
- Cell-based Assays

Management Skills:

- Policy Development
- Strategic Plan
- Logistics
- Brevity
- Collaboration
- Approachability
- Leadership
- Communication
- Analytic Intelligence
- Potential Problem Identification

Current Skills & Weakness

Current Skills:

- Communication: Oral & Written (3)
- Research Writing, Publication level (5)
- Computer Languages: MATLAB, Python (3)
- Nanoparticles Synthesis and Characterization (5)
- Manage research operations (4)
- Transform ideas into laboratory experiments (4)
- Statistical Analysis (4)
- Public Speaking(3)

Weaknesses:

- Develop more proficient uses of computer languages
- Explore more nanoparticle-related research
- Understand more statistical reasoning
- Public speaking



Target Skills for Roche Job

What exactly is Roche looking for?

1 = Least Confident

Technical Skills:

- Tissue Culture (2)
- Polymerase Chain Reaction (3)
- Gel Electrophoresis (4)
- Western Blot (2)
- ELSIA (3)
- Molecular Cloning (1)
- Flow Cytometry (1)
- Mass Spectrometry (3)
- Confocal Spectroscopy (1)
- Cell-based Assays (3)

5 = Most Confident

Management Skills:

- Policy Development (2)
- Strategic Plan (4)
- Logistics (4)
- Brevity (3)
- Collaboration (4)
- Approachability (3)
- Leadership (4)
- Communication (4)
- Analytic Intelligence (4)
- Potential Problem Identification (4)



Hands-on Design Work

Design Courses & Student Organizations

- Participate in students organizations that allow me to have hands-on experience and acquire valuable skills (technical skills and collaboration):
 - American Institute of Chemical Engineers: Chemical Plants experience
 - Biomedical Engineering Society: Bioprocessing and R&D research
 - UCLA Rocket Project: Reaction chemistry
 - ChemE Car: Reaction chemistry
 - UCLA Inventathon: Design projects
- Enroll in elective/mandatory design courses:
 - Chemical/Bio- Engineering CAPSTONE
 - Engineering 96: Introduction to Engineering Design
 - Bioengineering M233A/B: MedTech Innovations



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Credit: UCLA BSC

Industry Internship

Biotechnology Company & Startup

- Prefer to secure an internship at a biotech startup
 - More exposure the pipelines and daily procedures of a biotech company
 - Able to learn and absorb more on the technical and management aspects
- Acquire the following skills from internship:
 - Analysis and Problem Solving
 - Communication
 - Interpersonal
 - Management
 - Collaborate



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Credit: Startup UCLA

Education

Graduate School Industry M.B.A. Management Level

- After graduating with a B.S. degree from UCLA Engineering, I will be pursuing a doctoral program in biomedical engineering at the National University of Singapore.
- Acquire the following skills critical for R&D in the biotechnology industry:
 - Analysis & Problem Solving
 - Interpersonal & Leadership Skills
 - Project Management & Organization
 - Research & Information Management
 - Self-Management & Work Habits
 - Written & Oral Communication
- Enter industry with all the critical skills and earn an opportunity to have the company pay for MBA for two years
- Reenter the industry with a management level position



Credit: NUS

Recap Skill Development

Skills in the future?

- Conceptual & Creative Thinking
- Logical Thinking
- Administrative
- Decision Making
- Delegation
- Team Building



What needs to be done?

- Take additional courses that can assist my growth in computer languages & statistics
- Take additional courses that carefully examine the trend in current nanotechnology
- Participate in on- and off-campus organizations that are relevant to nanotechnology
- Actively look for summer internships that are relevant to nanotechnology
- Join organizations that help improve public speaking (e.g. Toastmasters)

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Credit: Toastmasters



Leveraging U-Grad Resources

UGrad Experiences

- Join UCLA Start Up Student Organization
 - Actively look for internships that are relevant to my dream job
 - Social network with recruiters both in person and online
 - Attend mixers that have alumni working in the industry



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Leveraging Post Grad Resources

Post Grad Experiences

- I expect to gain experiences in multi-national pharmaceutical companies that allow me to further understand the operations behind the administrative/management levels.
 - Shadow high level officers
 - Become an assistant in the office
 - Understand the daily operations



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1 Year: 2019-2020 3.5 Years: 2020-2024 1.5 Years: 2024-**UCLA National University of Singapore** Roche **Obtain Bachelor of Science Research Fellow** Pursue a Ph.D. in Biomedical Engineering **Develop lacking Technical BioEng research** in Chemical Engineering Lead R&D projects Summer Internship skills biotechnology **Seek industry research collaborations**



UCLA:

- Take as many biotechnology-related courses offered on campus (in and outside of major)
- Join biotechnology-related organizations
- Secure summer internships that allow me to understand biotechnology industry

Post-Graduation:

- Enroll in a graduate program (Ph.D.) that is relevant to biotechnology
- Seek for academia-industry collaborations/research

Industry:

- Start off as a research fellow in a biotechnology company
- Lead diverse, strong R&D groups for innovations
- An opportunity to get funded for MBA
- Slowly work my way up to management level



Dream Job:

Become the Chief Technical Officer (CTO) of an organization like Roche

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Week 8 HW

- 1. Read: Career Guide: "Negotiating Job Offers" section
- 2. Begin final draft of Career Action Plan presentation
- 3. Prepare for next week's Meet and Greet
- 4. Complete a Forage Microinternship and begin a ParkerDewey Microinternship

(DUE Week 9)



Week 9 Content & HW

Week 9 Content

1. Negotiating Offers

Week 9 HW

- 1. Finalize Career Action Plan
 - Due Week 10



Assignment Feedback

1. Assignment Feedback

- All assignments turned in ON TIME will receive feedback within 7 days
- If you want immediate feedback, please set up a peer advising appointment or go to drop-in hours!
- LATE assignments will not receive feedback within the 7 days if submitted late, email peer advisors for feedback

Events

- Whiting-Turner Infosession hosted by SWE
 - 11/17/21, 6-7 pm
 - https://docs.google.com/forms/d/e/1FAIpQLSd4YL5kq_km0W1w02SLYbtQzmtgtLiH8vltyHCX9dLGflt5Mg/view form
- HCL National Internship and Full-Time Career Fair
 - 11/18/21, 9 10 am
 - https://app.joinhandshake.com/events/897240?ref=events-search
- Bruin Racing x NREL Infossesion
 - 11/18/21, 5-6 pm
 - https://forms.gle/76GPMvdzdd34UzBGA
 - https://ucla.zoom.us/j/95228586854
- Supply Chain Internships Info Session hosted by Tesla (virtual)
 - 11/18/21
 - https://forms.office.com/pages/responsepage.aspx?id=9MUmkNCGn0u9ObfU0PtGdO6HgCmf_XBHgq9_UT9 bHgdUNjhBTDZVN0hMSUtYV1pRMVdRR0xXTDdCNyQIQCN0PWcu
- Experience ORISE Virtual Career Fair: Featuring Internships and Fellowships with the DoD

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 - o 11/18/21, 9 am 12pm
 - https://app.joinhandshake.com/events/898661?ref=events-search

Events

- Career Conversation Series: Career Planning 101 Negotiation
 - 12/9/21, 12 1 pm
 - https://www.applytracking.com/tp/rj6.pq9_S-K
 - o https://ucla.zoom.us/j/99013946713
- GradSWE Presents: Coffee, Chat, and CVs
 - 11/23/21, 9:30 11:30 am, ENG IV Patio
 - https://forms.gle/KtnuxZ9BWzxQiL4b6

Opportunities

Global Internship Program Application Closes 12/5/21

https://ieo.ucla.edu/globalinternships/#engineering

UCLA GLOBAL INTERNSHIP PROGRAM



Complete an 8-week summer Engineering internship for academic credit.

- Gain a competitive edge in the international job market
- Increase your industry knowledge and employability with real life work experience
- Learn to adapt to a new culture and international office environment
- · Build a global network

Application Deadline Dec 5, 2021







UCLA Study Abroad

Questions? Contact Andrew Bottom Associate Director

Associate Director
UCLA Global Internship Program
abottom@ieo.ucla.edu

abottom@ieo.ucia.edi

IEO.UCLA.EDU/GLOBALINTERNSHIPS



Links

Career Center Website: www.career.ucla.edu

Handshake: https://ucla.joinhandshake.com

Career Center Facebook:

https://www.facebook.com/UCLACareerCenter/

Career Center LinkedIn: https://www.linkedin.com/company/ucla-career-center/

ESUC On Campus Recruitment Calendar:

https://www.seasoasa.ucla.edu/on-campus-recruitment-calendar/





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MEET OUR PEER ADVISORS







Alyssa Wang 4th year, Computer Science and Engineering Drop in Hours: M: 3-5pm, T: 11am-12:30pm, W: 2-4pm Interned at Cisco, Amazon Lab126, and Cloudflare...



Josephine Neyyan 4th year, Bioengineering Drop in Hours: M: 11am-2pm, T: 9-11am Interned at ECA Medical Devices. Researched with Keck Graduate Institute, PATHS-UP, UCLA Optofluidics Lab, and the Song Li Lab.



Laya Rodriguez 4th year, Chemical Engineering Drop in Hours: M: 9-11am, W: 9-11am, F: 11am-1pm Transfer student. Researched with the

Engineering at UCLA



Reina Squires 4th year, Bioengineering Drop in Hours: Drop in Hours: M: 11am-12pm, T: 12-2pm, W: 12-1:30pm, R: 12-1pm, Interned at Takeda Pharmaceuticals.

Researched with Wong Bacterial Communities



Anna Cosmin-Spanoche
3rd year, Aerospace Engineering, Statistics Minor Drop in Hours: M: 10am-12pm, W: 10am-12pm, R: 10am-11am Interned at The Aerospace Corporation (Structural Dynamics Department). Researched with the Campbell Group (UCLA Physical



Brianna Duckworth 4th year, Materials Science Engineering Drop in Hours: M: 4-5pm, T: 3:30-5pm, W: 4-5pm, R: 3:30-5pm Data Analyst Intern at Soccer Skybox

Offered position in FBI Materials Science.



Alexandra Kwon 3rd year, Electrical Engineering Drop in Hours: T: 9-11am, 2-3:30pm. R: 2-3:30pm

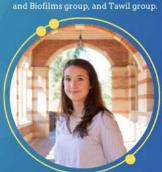
Interned at Zeta Associates, Researched with Carnegie

Observatories and UCLA Communication Systems Laboratory.



Rosa Son 4th year, Mechanical Engineering Drop in Hours: M: 9-11am, W: 9-11am, F: 12-1pm





Paulina Fisher 4th year, Civil Engineering Drop in Hours: M: 4-5pm, T: 12-1pm, R: 9-10:30am, F: 2-4pm Interned as a Construction Project Manager the past 3 summers in San Francisco.



Natalie Olivares 5th year, Bioengineering Drop in Hours: R: 10am-1pm, F: 10am-12pm Researched with Song Li's Cell and Tissue Engineering Lab.

Schedule an **Appointment**

Drop In Zoom Link



www.seasoasa.ucla.edu/undergraduate-internship-program/ www.seasoasa.ucla.edu/undergraduate-research-program/



facebook.com/SamueliURPUIP



uip@seas.ucla.edu urp@seas.ucla.edu **UCLA** Samueli

ENG 23 Office Hours

William Herrera T 4-5 PM

Course Facilitators

Schedule an Appointment

Drop In Zoom Link



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