

## UVA ChE Graduate Student Career Planner

### Timeline for Industrial Jobs (Ph.D. Level)

**Introduction.** Career planning is an ongoing process and not an event. You, as a graduate student, have the responsibility to take the initiative to start this process during your tenure to assure success. One of the first steps is to reflect on your strengths, goals and passions. Then you can explore various career paths to find the best match for you.

The employment environment is very competitive. You will need to take steps to **distinguish/differentiate** yourself from others to be successful.

- Achieve solid **academic performance** – focus on studies and GPA
- Demonstrate (via publications and/or patents) solid dissertation **research performance**
- Develop and demonstrate **leadership** and **communication** skills
- Engage in **student organizations** and your **research group** meetings
- Gain **professional experience** – internships, conferences, publications
- Build and maintain your professional **network**

While this is an on-going process, below is a **generic** timeline to help guide you through the process.

**The Early Years – Build a strong platform for success.** It is much easier to land your dream job if you have a strong record of achievement.

- Years 1-2 – Focus on excellence in graduate performance at UVA.
  - Academic performance (GPA in both core and electives, etc.)
- Years 2-3
  - Make strong progress on your research project
    - Achieve dissertation/research objectives in timely, effective manner
    - Demonstrate skills in performing independent research
    - Have strong engagement with your research group
    - Publish papers in prestigious journals (generally starting in year 3 and onward)

- Make presentations at professional meetings and conferences
  - Around Year 3 (when you prepare your research proposal), you will need to submit your current resume (with publications and presentation) as well as a draft one-page summary of your career plans.
- Throughout your graduate tenure
  - Network – Start building your professional network. This will become important when starting your actual job search and takes time to develop.
    - Create a Linked-In account and start adding contacts
      - UG friends/associates
      - Professors
      - Friends and acquaintances
      - Family friends
      - People you meet during your graduate studies at conferences, seminars, etc.
    - Keep up with your UG friends in industry and see how they, and the companies they are working for, are doing. Get their feedback on whether the corporate culture aligns with your needs.
    - Stay engaged with professional societies (AIChE, ACS, etc.)
    - Talk to industrial seminar speakers, ChE Advisory Board Members, etc. to find out their thoughts on companies and industrial careers.
  - Set up a regular discussion with your advisor on your job ambitions and potential career paths.
  - Make contact with SEAS Center for Engineering Career Development (CECD) and learn about their resources for career development. They have many tools to help guide you through the process.
    - Amy Clobes, Assistant Director of Graduate Education, also sponsors workshops on graduate career planning.
    - You can set up appointments with both the CECD and Amy Clobes to discuss your career plan.
  - Learn about and sign up for “Handshake”, UVA’s recruiting web platform. It will have listings for companies recruiting for chemical engineers.
  - Start researching companies and organizations
    - Find out about companies you have an interest in working for
      - Ask your advisor for ideas
      - Friends/associates that work there
      - Networking events
      - Career Fairs
      - Glassdoor
      - Companies in the news

- Consider joining “Hoos Online” which matches up students with UVA alums in various companies. The CECD can help with this.
- Consider internships – These can be with companies or organizations such as the NSF industrial internship program. While these are not always possible, (and it often is not), talk to your advisor about potential industrial internships during your graduate work. The internships can be at companies or at national labs. It might add to your overall graduate timeline but could be an advantage for an industrial job search.
- Explore leadership opportunities – Consider graduate leadership opportunities such as the Grad Board and other UVA organizations. Consider volunteer organizations but be sure that it does not conflict with progress on your research effort.
- Explore community outreach opportunities – Organizations are looking for a balanced resume.
- Continue your professional development.
  - Consider taking (after discussion with your advisor) one of the courses offered by SEAS Graduate Education Office (Shannon Barker) on professional development (leaderships, networking, communications, etc.).
  - Use resources such as the Halsey Professor and Professor of Practice to learn about their careers and what advice they may have for yours.
- Continue to update your resume. Continuously review your career ambitions and ideas for your ideal job.

**About One Year before PhD Defense -Time to get serious about career opportunities.** (It could start earlier. You should discuss with your advisor).

- Ask your advisor (or other faculty members), friends and associates about potential job connections.
- Refine your resume and “elevator speech”. Review and “practice” with friends and advisor in mock interviews. Consider incorporating the STAR (Situation, Task, Action, Result) technique for structuring your answers in interviews.
- Meet with the SEAS Center for Engineering Career Development Office, discuss your job objectives, and get feedback on your resume and elevator speech.
- Secure several references (advisor, instructors, etc.) for job applications
- Develop your list of targeted companies/organizations. Start with a larger group of perhaps a dozen or so and narrow to top five or six. This will be an ongoing process as the companies fall in and out of the list.
  - Cultural match

- Job opportunities (are they growing/hiring). Ask friends/network if they know who is hiring, etc. Search job opportunities on line.
- Career development opportunities for longer term
- Locational match (are they located where you would like to live, or do you have constraints)
- Attend career fairs
  - UVA
  - Professional Societies (AIChE, ACS, SWE, NSBE, SASE, etc.)
- Apply for jobs
  - Career fairs and on-line applications
  - Follow up on applications
  - Customize your cover letter for each company to match their requirements.
  - Prepare for on-site job interviews
    - Most companies expect PhD student to make a presentation on their research. Take the time to prepare one that is appropriate for this purpose (*which is quite different from a technical conference presentation*). Practice and get feedback from advisor/friends before the on-site visit.
    - Consider informational interviews to sharpen your interview skills. Companies are looking for more than just technical competence; they want to see leadership and collaboration skills and organizational fit.
    - Prepare to communicate your strengths and potential contributions to the company's success.
    - Research the companies in more detail – what are their new products, what is the competition in their field, what is their financial status, etc.
    - Consider the timing for starting a job. Best to defend your dissertation before starting work if possible.
- If you have multiple possibilities, consider pros/cons of each, get advice from advisor and associates before making a decision.
- Remember, your first job will probably not be your last. Career planning is an on-going process, and you should continuously be looking at where you are versus your career goals. You will need to maintain your network and contacts during your career.