JOB SEARCHING FOR PHDS

Earning a doctorate develops expertise and skills that can be used in various career paths in academia, private industry, and the federal government. Earning your PhD is hard, but learning the skills needed to land a post-grad position doesn't need to be. The Engineering Career Services office and The Graduate School's Professional and Career Development Services provide online and print materials, events, and advising to help you prepare for your next step.

The information in this handout is adapted from webpages found across: gradschool.umd.edu/professionaldevelopment

THE DOCTORAL JOB SEARCH

Job Search Basics
- Conduct a multi-faceted **job search** that includes building your network, attending career fairs, and applying to positions.
- **Write well** constructed CVs, resumes, cover letters, and personal statements.
- Search for job postings on Handshake and other job search sites.
- **Leverage career fairs**, conferences, and other professional events to increase and improve your networking opportunities.

Get Organized
- **Make a plan** and keep a record of your activities.
- Put dedicated time in your calendar for job searching.
- **Set weekly goals.**
- Maintain a database of contact info for those you **network** with, recording dates and notes of interactions, and nurture those connections.
- **Send follow up** emails and thank you notes for informational and job interviews.

STARTING YOUR SEARCH

- Develop an **Individual Development Plan** (IDP) as early as your first semester. The IDP is an evolving document that includes steps you will take to achieve your goals. Learn more at go.umd.edu/ECSIDP.
- Mark **professional development events** on your calendar (go.umd.edu/ECSEvents).
- Familiarize yourself with our **Career Resources and Handouts** page (go.umd.edu/ECSresources).a
- Activate your **Handshake** account(umd.joinhandshake.com)to explore workshops and jobs.
- **Schedule an appointment** with a career advisor (email careerengr@umd.edu).

Academia, Industry,
& Federal Jobs Overview

Learn the Facts

Fewer than 30% of doctoral engineering graduates are employed in academia. Many choose to pursue careers in industry or government because of the type of work and/or salary options. Doctoral graduates possess a multitude of transferable skills that are useful to employers across sectors. All doctoral students and postdoctoral associates are strongly encouraged to consider, explore and prepare for multiple career paths in academia, industry, and government organizations.

Academia

Research-Intensive Faculty include positions in academic departments and university centers that emphasize research as well as teaching. The types of higher institutions with faculty positions range from research-intensive doctoral institutions, four-year institutions offering master's degrees, and liberal arts colleges. **Teaching-Intensive Faculty** include positions that require as many as 5 or more courses each term, student advising and institutional service. These careers are found at many kinds of institutions, including 4-year comprehensive public universities, private liberal arts colleges, community colleges, and more. Regardless of the type of faculty you endeavor to become, there are steps that you should take as early as possible to ensure that you build a competitive record for an academic job application. To learn more, visit go.umd.edu/ECSacademia.

Industry

If you are interested in a career in **Industry**, joining a professional association is a good start. There are associations for nearly every profession or area of interest and many have national, state and regional chapters that you can join. A professional association can help enhance your network, by putting you in close contact with others in your field, and allow you to find a mentor to help you with your professional goals. Most associations have national or local conferences where you can have the opportunity to learn about breaking news in your career, learn "best practices" or new ideas, hear about key achievers in your field and also meet and brainstorm with others who are also looking to share and learn new information. Another important reason to consider membership to a professional organization is to take advantage of their career resources. Associations often have job listings online or in print available only to their members, which is a great way to find targeted job postings for your area of interest. To learn more, visit go.umd.edu/ECSindustry.

Federal Jobs

If you are interested in a **Government or Federal** career, you can learn more about job descriptions and requirements through a variety of online platforms. USA Jobs (usajobs.gov) lists most, but not all, federal jobs. Through this site you can learn about the types of positions found in the federal government, educational requirements, and specific duties. The Partnership for Public Service (ourpublicservice.org) also provides an annual report about the Best Places to Work in the Federal Government. Reaching out to UMD Alumni on LinkedIn or UMD's free online virtual platform, Terrapins Connect (alumni.umd.edu/terrapins-connect), may also be beneficial in learning how to break into this sector. To learn more, visit go.umd.edu/ECSfedjobs.

For more information, visit: go.umd.edu/ECSphdoutcomes

Academia, Industry, & Federal Jobs Overview Continued

No matter what sector you want to join, there are a number of ways to get involved. Here are some ideas for getting ahead in your chosen career field.

Academia

Learn
- Learn about what it means to be a faculty member and what is expected of you beyond research.
- Learn about the different types of colleges and universities and take note of your skills and interests . (Do you prefer teaching or research? How does your preference impact your choice of institution?)
- Get granular about faculty life and expectations (typical salaries; expectations for publications; promotion structure).

Participate
- Attend a conference and network with colleagues; be sure to follow up as appropriate and to nurture those connections.
- Participate in faculty committees or service to the university by joining a departmental committee, professional association, or the SGA.
- Review journal articles and proposals related to your field.

Act
- Propose a topic of discussion or talk about your research at a conferences (go where the faculty are and promote your work and why it's important).
- Promote visuals of your work by posting on LinkedIn.
- Publish and then share your research on LinkedIn or in professional groups.

Industry & Federal Jobs

Learn: Industry
- Review job applications for your field and keep track of the skills necessary for a position.
- What kinds of skills (technical or leadership) are indicated? How can you develop those skills? How can you gain leadership skills while still earning your degree?
- Connect with PhDs in your field (LinkedIn or Terrapins Connect) and learn more about their work and their career path.
- Learn about the companies eager to hire PhDs and follow them on LinkedIn.

Learn: Federal
- Learn about federal resumes and the process for applying for a government job (federal resumes are different from industry resumes and CVs).
- Become familiar with the government related platforms (usajobs.gov, ourpublicservice.org, go.umd.edu/ECSfedjobs).
- Learn about the pay structures and scales and what's required to be hired at a particular rate.
- Take careful note of the keywords used in the position description and ensure that these exact words are used on your resume.

Participate
- Participate in industry related conferences and talks.
- Participate in professional organizations and connect with professionals through LinkedIn; share your aspirations and what you hope to do.
- Attend UMD networking events and career fairs, determine which companies are hiring PhDs.
- **For federal jobs**, check usajobs.gov/notification/events.

Act
- Challenge yourself to have a leadership role in a professional association.
- Supervisor undergraduate or master's students.
- Share your goals with faculty and determine if they have any contacts who might shed light on job search strategies.
- Set up job search alerts and receive email notifications about opportunities.
- **For federal jobs**, check out Pathways (for students & recent graduates to federal careers) at go.umd.edu/ECSfedpathways.

Resume vs. CV

Resumes are documents geared toward industry, non-profit, and federal/government applications. They summarize your relevant education, experience, and activities. A good industry resume reflects your achievements and accomplishments. It should answer: What was the purpose of your work? How did you contribute to your project's success? See page 6 of our Resume Handout for a list of verbs, paying close attention to the words under the Efficiency and Achievement sections, to cast your work in a positive light (go.umd.edu/ECSResumeHandout).

CVs (curriculum vitae) are documents geared toward faculty and research positions in academia or other research arenas. They offer a cumulative record of professional achievements, academic preparation, and qualifications in your discipline.

In countries outside the U.S., the term CV maybe be equated with the term resume. However, in the U.S. there are important differences between these documents to consider.

Differences between a Resume and CV

Resume
- Used to apply to **industry jobs .** (audience is usually HR or hiring managers)
- **1-2 pages** at the most, featuring selected professional highlights.
- Focused on **professional experience.**

CV
- Used to apply to jobs in **academia or research** (audience is usually faculty or researchers).
- **2-6 pages** or as many as you need to offer a comprehensive professional overview.
- Focused on **scholarly achievement** such as research, proposals, and publications as well as teaching experience.

Similarities between a Resume and CV

The purpose of both documents is to get you through screening, to the next step of the hiring process, whether that is an interview or a second round of consideration.

Both documents offer a record of professional and academic achievements. Format and content can vary by industry or discipline for each. However, both documents should be organized (with clear sections delineated) and well-developed bullet points that illuminate the relevant qualifications you bring to the position. Both documents should be updated regularly.

Neither document should include photos or personal information (birthdate, social security number, marital status). See templates on pages 9 - 11.

Plan for Your Academic, Career, and Professional Development

All doctoral students and postdoctoral associates should proactively manage their career and professional development. Some good places to start are with career exploration and planning tools.

External Resources

AURORA by Beyond the Professoriate: go.umd.edu/ECSAurora
Aurora is an online tool that all doctoral students can access using their UMD CAS login. Use Aurora to

- explore different career paths, and hear from doctoral graduates currently in those fields.

- develop the materials and skills for a job search (resume writing, interview techniques, and networking strategies).

- translate your academic experiences into transferable skills.

MyIDP: go.umd.edu/ECSmyidp
MyIDP (Individual Development Plan) is an online career-planning tool created to help graduate students and postdocs in the sciences define and pursue their career goals. MyIDP will help you identify the career goals that are right for you and develop a step-by-step plan to reach those goals. MyIDP is a four-step process that includes

- exercises to help you examine your skills, interests, and values.

- a list of 20 scientific career paths with a prediction of which ones best fit your skills and interests.

- a tool for setting strategic goals for the coming year, with optional reminders to keep you on track.

- and articles and resources to guide you through the process.

Internal Resources

Doctoral Career Navigator: go.umd.edu/navigator
Doctoral Career Navigator is an online tool in UMD's online course platform - ELMS-Canvas. It contains thirteen modules of information, videos, worksheets, and links to resources relevant to all UMD doctoral students and postdocs. The modules can be done at your own pace, or as part of the multipart career exploration and job search workshops offered each semester. Use the modules to

- increase your knowledge of campus career resources for doctoral students.

- do some self-assessment of your interests, values, and transferable skills.

- learn how to create effective resumes, CVs, and cover letters.

- conduct an effective job or internships search.

For further resources, visit go.umd.edu/gradschoolpd

THE CAREER DEVELOPMENT MODEL

The Career Development Model below illustrates the cyclical nature of the process that is repeated throughout one's career. At times, it's normal to feel uncertain or frustrated, especially if a change in plan is needed. This model can help you find comfort and see a different way of approaching your work.

Where are you in the cycle? Do you need to spend some time identifying or reassessing your values, interests, and strengths? Or do you need to explore specific career paths and job options? Perhaps you are ready to make decisions, set some goals, and do some action planning? Maybe you are ready to put your plan into action. It is important at the end of each semester and year to spend some time reflecting on what you learned about yourself and to make appropriate changes to your written plan for the upcoming year. Remember, your plan is a living document that should be revised as you gain insights, gather information, and learn from your experiences.
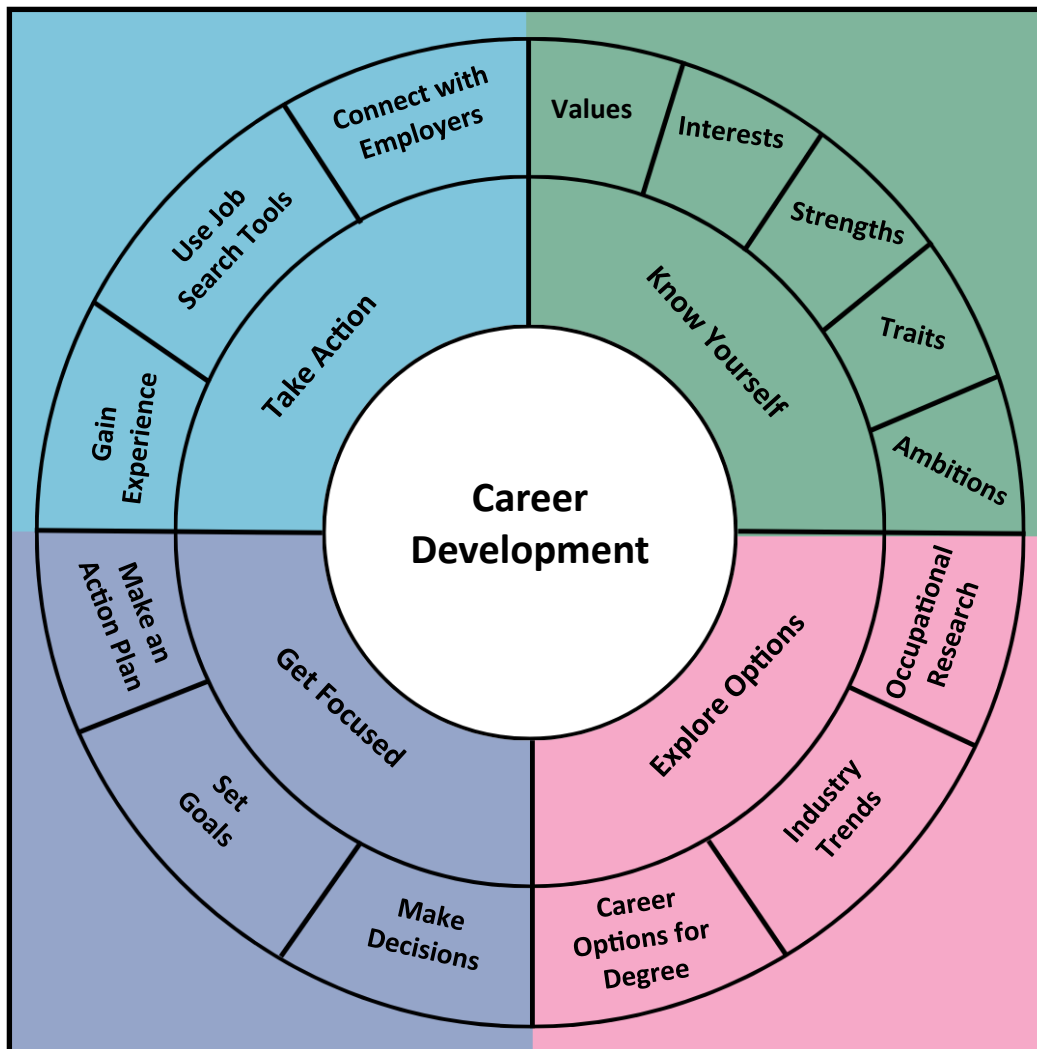
Take inventory of your progress on the next page.

Take Inventory of your progress

What items can you check off on this checklist? Each category relates to the Career Development Model referenced on page 6. Take this survey to see where you might begin with your career planning.

Career Planning Checklist

☐ I have a clear picture of my top 5 interests.

☐ I can name the top 5 skills that I want to use regularly in my work and that I bring to a job/employer.

☐ I have clarity about my top 5 values and what is important to me in my life and my next job.

☐ I've completed self-assessments to identify my interests, skills, & values.

☐ I've identified at least two career paths that are aligned with my interests, skills, & values.

☐ I've researched multiple career options (job requirements, daily tasks, salaries, etc.).

☐ I've talked with alumni to learn more about career paths or employers of interest to me.

☐ I know and have used the career resources available through national associations and conferences.

☐ I've attended regional professional association meetings related to careers of interest to network.

☐ I've compared a number of career options to my interests, skills, values and decided on at least two specific target jobs I plan to prepare for and pursue after graduation.

☐ I have clarity about my long-term life goals (personal, professional, etc.).

☐ I consistently practice techniques for setting and working toward long-term, short-term, and daily goals.

☐ I have a written IDP for the remaining years of my doctoral program or postdoc.

☐ I can name the specific job titles I'm conducting a search for.

☐ I have a list of at least 10 target organizations that have the types of roles I seek in regions of interest.

☐ I set up search agents to send me open positions from at least 3 job boards. I read postings weekly.

☐ I have an updated resume that has been reviewed by career services within the past 6 months.

☐ I have an updated CV that has been reviewed by faculty mentors.

☐ I have a well-written cover letter that I can adapt for specific job postings.

☐ I've practiced effective responded to common interview questions.

☐ I've conducted a mock interview and received feedback from career services or employer interviewers.

☐ I've developed a set of criteria that are important to me to which I will compare job offers.

☐ I know how to determine a target salary range based on my qualifications, market trends, and location.

☐ I'm prepared to negotiate salary/benefits and respond appropriately to a job offer.

☐ I am able to discuss necessary accommodations with employers.

☐ I am able to discuss my work authorization with employers.

Adapted from PhD Career Development Guide 2020 Draft.
This and other resources, such as skills and strengths charts available at: go.umd.edu/ECSdocresources

ADDITIONAL RESOURCES

From workshops and conferences to YouTube videos, we've compiled some useful resources so that you can navigate your career successfully.

WORKSHOPS

Graduate School & Engineer Career Services Workshops
Doctoral students and postdocs at all stages of their training should participate in online workshops to learn more about important career and professional development topics. Students and postdocs must register for these online workshops via Handshake/
Learn more: go.umd.edu/ECSgradworkshops or go.umd.edu/ECSEvents

CAREER SERIES & CONFERENCES

The Rita B. Leahy Doctoral Career Series
The Rita B. Leahy Doctoral Career Series for doctoral students brings current students, postdocs, and Maryland alumni together to meet and explore career opportunities. Each session of the series focuses on one broad career area and features alumni from different disciplines doing meaningful work related to that area. Learn more: go.umd.edu/ECSleahy

Career Pathways Conference
Increase your knowledge, curiosity, and excitement about how to get from here, wherever you are in your doctoral training, to your career beyond Maryland, by hearing from alumni panels and getting your most pressing questions answered.
Learn more: go.umd.edu/ECSpathways

YOUTUBE VIDEOS

Find career services on YouTube by typing in UMD Engineering Career Services and UMDCareerCenter. Our channels offer career development videos as well as event recordings. Be sure to check out various playlists and instructional videos on career planning.

THE GRADUATE SCHOOL WRITING CENTER

The Graduate School Writing Center offers a range of appointments for writing and oral communication support. Learn more: go.umd.edu/ECSgradwriting