Professional Development: Key to Success in Grad School

Hans G. Dam
DMS Brown Bag seminar
September 29, 2021
The Secret to Spontaneity is Planning
Chance favors the prepared mind

You are the master of your universe.

Credit: Cathy Renwick, Pinterest
The Professional Landscape

Doctorates awarded by U.S. colleges and universities: 1958–2019

(New yearly degrees/# faculty) > 2

S&E = science and engineering.

Source(s):
Career Path Post-Graduation

Source: Uconn Grad School
Competencies for a Career-Ready Workforce Overview

Competencies
There are eight career readiness competencies, each of which can be demonstrated in a variety of ways.

- Career & Self Development
- Communication
- Critical Thinking
- Equity & Inclusion
- Leadership
- Teamwork
- Technology
- Professionalism
The six core competencies are:
1. Discipline-specific conceptual knowledge
2. Research skill development
3. Communication skills
4. Professionalism
5. Leadership and management skills
6. Responsible conduct of research
Geosciences-Specific

- Oral/written communication
- Teamwork/collaboration
- **Technology mastery** (data management, analytics, modeling, AI, Bioinformatics, etc.)
- Leadership/Management
- Professionalism/work ethic
- Self-awareness and career development
- Global perspective

Source: [http://www.jsg.utexas.edu/events/files/Grad_skills_Summit_2019.pdf](http://www.jsg.utexas.edu/events/files/Grad_skills_Summit_2019.pdf)
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<tr>
<th>Understand &amp; Utilize Campus Resources</th>
<th>Create and Keep Professional Documents Up-to-date</th>
<th>Consistently Explore Career Fields &amp; Career Paths</th>
<th>Create &amp; Cultivate Your Digital Footprint</th>
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<tr>
<td>Become familiar with the services and resources that the Center for Career Development offers graduate students. <a href="http://career.uconn.edu">http://career.uconn.edu</a></td>
<td>Update or create your CV and/or resume and review it each semester.</td>
<td>Become acquainted with industry-specific job search websites. Identify employers of interest and also view actual jobs, familiarizing yourself with the experiences, skills, and training needed to be a competitive applicant.</td>
<td>Conduct an Internet search on your name and see what comes up.</td>
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<td>Gain knowledge about any career preparation that occurs within your field of study at UConn or through your professional associations.</td>
<td>Keep an electronic portfolio of anything that you feel shows evidence of your accomplishments.</td>
<td>Create a strong LinkedIn and/or other electronic professional profile.</td>
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<td>Learn about the programs and services offered by the Writing Center <a href="http://writingcenter.uconn.edu">http://writingcenter.uconn.edu</a></td>
<td>If you teach, compile student evaluation data of your courses.</td>
<td>Contribute to conversations within professional groups and forums.</td>
<td>Follow relevant and influential individuals on LinkedIn and contribute to discussions.</td>
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<td>Connect with programs at the Institute for Teaching and Learning to stay current with best practices in the classroom. <a href="http://itt.uconn.edu">http://itt.uconn.edu</a></td>
<td>Familiarize yourself with the content that is typically included in a Statement of Teaching Philosophy and/or Research Statement.</td>
<td>Consider creating a blog or consistently contributing to one in your primary and secondary fields of study.</td>
<td>More directly related to career exploration.</td>
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<td>Read career-related announcements sent to you through the Graduate Student ListServ and other communication channels.</td>
<td>If embarking on an academic job search, periodically write down ideas of content to include in your Statement of Teaching Philosophy or Research Statement.</td>
<td>Consider creating your own website with professional content.</td>
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<td>View the Graduate School’s centralized calendar of events.</td>
<td>Create drafts of outreach content that you can adapt when desiring to connect with others for networking, informational interviewing, and/or future job search.</td>
<td>Make choices about your digital involvements and create a rhythm to your participation.</td>
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<td>Consider enrolling in a UConn Certificate Program to build a specific skill set and knowledge base. <a href="http://grad.uconn.edu">http://grad.uconn.edu</a></td>
<td>Ask people for recommendations while they still remember you.</td>
<td>Add videos of your best presentations or job talks to your electronic profile.</td>
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<td>Explore using an electronic dossier service to organize and gather your professional materials.</td>
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Professional Development Program
for Graduate Students of DMS

Tools and opportunities for proficiency:

• Research & Scholarship
• Professional
• Job Market
Elements of Professional Development Program at DMS

- GPA of 3.0 or above
- Plan of study
- Passing the comprehensive general examination (Ph.D. students)
- Completion of thesis
- Annual student report
- Friday seminar series and brown bag series
- Graduate student research colloquium (Feng)
- Travel awards
- Competitive research fellowships
- Professional development course (MARN 5500)
- Individualized Development Plan ([http://marinesciences.uconn.edu/academic/graduate-student-handbook/#prodev](http://marinesciences.uconn.edu/academic/graduate-student-handbook/#prodev))
- Exit Interview
Proficiency

• **Research and scholarship:**
  Research skills, thesis, publications, ethics

• **Professional:**
  Presentations, grants, research management, leadership, conflict management

• **Job Market:**
  CV or résumé, teaching portfolio, job application and interview, networking
IDP Advantages

• Research and scholarship proficiency
• Learn the business of science
• Prepare to succeed in the work market
• Satisfactory and productive experience in graduate school
Building your IDP (see graduate student handbook)

- **Aptitudes/Interests**: Assess current skills, strengths and weaknesses, interests, and explore career fits
- **Plan**: How to develop skills to meet academic and professional goals
- **Evolve**: Communicate with supervisors, advisors, and mentors about changing goals and related skills

See: myidp.sciencecareers.org
## Your IDP Road: You and Your Mentor

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<th>Basic Steps</th>
<th>For Graduate Students</th>
<th>For Mentors</th>
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<td>Step 1</td>
<td>Conduct self-assessment</td>
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<td>Step 2</td>
<td>Write an IDP. Share IDP with mentor and revise</td>
<td>Review IDP and help revise</td>
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<td>Step 3</td>
<td>Implement the plan. Revise IDP as needed</td>
<td>Establish regular progress review</td>
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<td>Step 4</td>
<td>Survey opportunities with mentor</td>
<td>Discuss opportunities with student</td>
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## Creating your IDP

**Areas to develop**
(Assess your scholarly and professional competencies. What do you need to develop?)

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<th>Questionnaire</th>
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**Goals: long—term**
(What will you do to improve in the areas you have identified?)

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**Goals: Short term**
(What could you do this year?)

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**Strategy for Reaching Goals**

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**Steps and Timeline for completion of goals**
(What steps will you take to accomplish your goals and by when?)

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**Resources available**
(Human or electronic)

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**Outcomes**
(What will you have done to indicate that you have reached your goals?)

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SMART

• Specific – Is it focused and unambiguous?
• Measureable – Could someone determine whether or not you achieved this goal?
• Action-oriented – Did you specify the action you will take?
• Realistic – Considering difficulty and timeframe, is this goal attainable?
• Time-bound – Did you specify a deadline?
Establish a broad knowledge base –
Strategy goals [career advancement]:
- Consistently attend seminars and lecture series
- Continue to read papers on a wide range of topics; discuss with other people or in a journal club
Tactics goals [skill improvement goals]:
- Take courses on molecular biology (Fall 2017)

Become more comfortable with statistical analysis and design of experiments –
Strategy goals:
- Work on critical analysis of experimental design from papers
- Take an active role in experimental design in lab projects
Tactics goals:
- Take two stats courses (Fall and Spring 2017-2018)

Work on writing papers and navigating the peer review process –
Strategy goals:
Tactics goals:
- Publish at least one paper a year

Begin to work on writing and managing grant proposals and budgets –
Strategy goals:
Tactics goals:
- Complete preliminary study and furnish results into full NSF proposal (Fall 2017?)
- Talk with Lydia about managing lab and ordering

Become comfortable presenting research to scientific audiences –
Strategy goals:
Tactics goals:
- Give at least 1 scientific talk per year (brown bag or at conference)

Hone teaching and mentoring; Become more comfortable with delegating tasks –
Strategy goals:
- Mentor/work with undergrads on research project
- Continue to TA courses
Tactics goals:
- Lecture for undergrad courses when available
- Take at least 1 workshop on teaching/pedagogy per year
WHAT’S YOUR NEXT STEP?

• Giddy up: Start working on your IDP
• Will ask for IDP in your annual report (due in January)