

The Individual Development Plan for Interdisciplinary Graduate Students

Purpose of the Individual Development Plan

The Individual Development Plan (IDP) is a tool designed to assist with (1) identifying professional goals and objectives; (2) assessing an individual's skill set relative to their career goals; and (3) developing a plan to acquire the skills and competencies needed to achieve short- and long-term career objectives. While the IDP is not new, its recognition as a best practice in professional development is fairly recent. Because of its demonstrated usefulness in fostering professional development, the IDP is increasingly recognized as an important instrument for graduate students. A well-crafted IDP can serve as both a planning and a communications tool, allowing graduate students to identify their research and career goals and to communicate these goals to mentors, PIs, and advisors.

Findings from the Council of Graduate Schools' [Ph.D. Completion Project](#) indicate that only about half of Ph.D. students across the nation complete their degrees, making retention in the dissertation stage a serious concern. In response, some University departments and units have developed support groups, workshops, writing seminars and tools like the IDP for students to assist at the dissertation writing stage. An IDP, while useful to all graduate students, may be particularly beneficial to students pursuing interdisciplinary research and scholarship. These students may face additional challenges on the road to completing the Ph.D., such as coordinating their program across several disciplines, mastering multiple methodological and theoretical approaches, and working with mentors from different disciplinary backgrounds.

IDP—Effective Tool for Enhancing Mentoring

The Ph.D. Completion Project also found that a close and effective working relationship with mentors and advisors is critical to success in achieving a Ph.D. However, effective mentoring takes many forms depending upon the goals and expectations of individual students and mentors. While one student may seek guidance on dissertation research, another might need advice on managing relationships with co-advisors and team members, or preparing for job talks. When graduate students are better able to clarify their career goals and expectations with their advisor(s), mentor(s), and/or PI, this in turn leads to better communication, better planning, and more successful outcomes. By defining their career goals early on and developing a plan in consultation with their advisor(s) and mentor(s) for pursuing these goals, graduate students are better able to identify and participate in professional development opportunities, such as teaching, exposure to non-academic careers, and training in proposal writing and project management, targeted toward achieving their specific objectives.

Because perceptions of mentoring also differ across fields and disciplines, students focusing on interdisciplinary work often need advice tailored to their specific situation as both students and potential future faculty members. This may take the form of guidance on professional development as an interdisciplinary scholar, such as which professional meetings to attend, which journals to target for publications, or how to negotiate future positions to allow for and reward continued interdisciplinary exploration. As a planning and communications tool, the IDP can help ensure interdisciplinary graduate students receive effective mentoring by bringing together what might otherwise be disparate and disconnected pieces of a professional development plan.

Outline of the IDP Process

The development, implementation, and revision of IDPs require that graduate students and their mentor(s) complete a series of steps. These steps are an interactive effort, and so both the student and the mentor(s) must participate fully in the process.¹

Basic Steps	...For Graduate Students	...For Mentors
Step 1	Conduct self-assessment	
Step 2	Write an IDP Share IDP with mentor(s) and revise	Review IDP and help revise
Step 3	Implement the plan Revise IDP as needed	Establish regular progress review
Step 4	Survey opportunities with mentor(s)	Discuss opportunities with student

Step 1: Conduct a self-assessment

The self-assessment will help the graduate student gauge the skills, strengths and areas that need further development. Some of the skills and strengths that are relevant to career decisions in research and teaching include: technical abilities (breadth and depth of expertise), writing skills, oral communication skills, organizational ability, leadership, self-motivation, decision-making, creativity, work ethic, problem solving abilities, knowledge (depth and breadth), perseverance, and the ability/desire to take risks. Students should take a realistic look at their current abilities. This is a critical part of career planning. The student's mentor(s), faculty, colleagues, family and friends should all be involved in the assessment process to help identify both strengths and areas for further development.²

Below are some questions to initiate the self-assessment process. These questions are

¹ FASEB site: <http://opa.faseb.org/pdf/idp.pdf>

² Annual Self Assessment for Postdoctoral Fellows, University of North Carolina Chapel Hill, Office of Postdoctoral Services http://postdocs.unc.edu/postdoc_self_assessment_form.doc (link broken)

not intended to be comprehensive, but can serve as a tool for students and their mentor(s) to identify career goals and the competencies required to reach those goals.

Career Goals	<p>What are your short-term career goals? How will you achieve these goals within the next two to five years?</p> <p>What are your long-term career goals? How will you achieve these goals within the next 10 to 15 years?</p> <p>What did you do last year to help develop contacts relevant to your short-term or long-term goals? Did you have opportunities to network with individuals from institutions or companies you feel may be a good fit for your future career aspirations?</p>
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What percentage of your time have you spent in the past year on the following components of the graduate experience? How much time would you need to spend this year?³

- Coursework
- Research
- Dissertation writing
- Grant writing
- Attending research-related meetings or seminars
- Background reading
- Presenting at conferences or professional meetings
- Writing for publication
- Course development (for instructors/TA)
- Teaching
- Job search process such as CV/résumé building and formatting, interviewing, etc.
- Student advising
- Attending career development workshops

Scholarly Competencies

Research	<p>What research theories or questions have you developed in the past year? How can you continue to build on those theories or questions? Are there other related theories or questions to develop?</p> <p>What research-related skills have you acquired? What feedback have you received on your research skills? What further skills do you need to acquire to be successful with your research and future career? How will you gain exposure to these skills and evaluate your competency?</p> <p>What research collaborations (intradisciplinary or interdisciplinary)</p>
³ <i>Ibid</i>	3

Dissertation Writing	<p>How much time have you spent narrowing the scope of your dissertation topic or drafting parts of the dissertation?</p> <p>Have you developed a schedule this year to meet with your advisor(s) regarding the dissertation? If you are just beginning your graduate program, are you familiar with your program's process to move students from the coursework to the dissertation defense? If not, who can you ask?</p> <p>Do you have a writing support group or resources where you can get feedback on your work? If not, how can you join a group?</p> <p>How productive were you last year with writing the dissertation? What are your writing strengths and areas needing improvement? How would you seek assistance?</p>
Teaching	<p>Did you do any teaching in the past year (courses, seminars, laboratories)? Would you like additional opportunities to teach? How will you find these teaching opportunities?</p> <p>How will you ensure that your teaching reflects your expertise and strengths as an interdisciplinary scholar?</p> <p>What sorts of feedback, formal or informal, have you received on your course content, syllabi, pedagogy, consideration of diverse learners and overall teaching abilities? In which areas do you need to improve? How will you improve your teaching and what resources are available?</p>
Papers and Publications	<p>What papers did you author or co-author in the past year? Were any of the papers submitted for publication? If not, could any of those be submitted for publication this year, or do you need to write different papers? How will you identify potential publishing venues?</p> <p>What types of feedback, formal or informal, have you received on your writing skills?</p> <p>What specific areas of writing do you need to improve?</p>

Professional Development Competencies

Presentations	<p>What presentations (lab meetings, journal clubs, seminars, scientific meetings or professional conferences) did you make in the past year?</p> <p>What sorts of feedback did you receive on the content of you presentation and your presentation skills?</p> <p>Are there specific presentation skills you would like to improve? How will you do so and what are your resources?</p>
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	What presentations would you need to make this year?
Fellowships and Grants	<p>What fellowship or grant proposals did you write? Were they funded? If yes, how will you assure that you make progress on these projects this year? If the proposal was not funded, what can you do to improve the application for future submission?</p> <p>What feedback have you received on your grant writing skills? Are there specific areas you need to develop to attract potential funders? How will you improve your skills and what resources are available?</p> <p>What grants do you need to write this year?</p>
Budget Management	How much experience do you have with budget management? Do you need to gain more experience managing a research or project budget? How will you accomplish this?
Leadership	<p>What leadership experiences have you had that allowed you to identify objectives, implement plans and acquire decision making skills?</p> <p>What positions (within and outside the University) can you pursue this year to enhance your leadership skills?</p>
Conflict Management	<p>What opportunities have you had to develop skills related to conflict management? Such skills might include the ability to understand:</p> <ul style="list-style-type: none"> • psychological, physiological and behavioral aspects of conflict • cross-cultural considerations in dealing with conflict • prevalent conflict management styles and strategies • positive opportunities that can be presented by conflict • differences between the roles, responsibilities, process and expected outcomes of mediation, arbitration and negotiation • differences between compromise, cooperation, collaboration and consensus building⁴

Competencies for the Job-search Process

Below is a list of suggested professional development competencies related to the job search process that could be developed to increase the chances of securing a job offer of your choice in a timely manner. Take time to identify areas you need to improve and the resources available within and outside of the University.

1. CV/résumé building and formatting
 - Formatting for the appropriate audience (e.g. teaching versus research university)

⁴ <http://www.campus-adr.org/CMHER/Newsletter.html>

- Including information pertinent to the job description and qualifications
- Using a consistent, well-organized format that is easy to read and professional

2. Job Interviews

- Preparing and researching for the interview
- Understanding different types of interviews for industry and academia
- Recognizing and effectively responding to different forms of questions such as theoretical, leading and behavioral
- Properly communicating essential qualities such as clear communication skills, enthusiasm, leadership experience, teamwork oriented, decision-making abilities, organizational skills and maturity
- Gaining experience with mock interviews that provide in-depth feedback
- Developing interviewing techniques such as SAR (situation, action, result)
- Handling difficult questions with poise and purpose
- Identifying common cultural barriers to the job search
- Developing questions for the interviewer
- Maintaining appropriate contact after the interview

3. Informational Interviews

- Tailoring the interview to your personality preferences
- Establishing contact with an individual from the company or institution of interest
- Formulating effective interview questions
- Maintaining appropriate contact after the interview

4. Networking

- Identifying opportunities to meet with individuals who may be interested in your research and professional experiences
- Communicating your scholarly, research and career interests to individuals in academic and professional communities who may be aware of employment opportunities that match your specific experience and skills.

5. Job-talk

- Tailoring the content for institutional or organizational fit
- Clearly communicating your research or scholarly agenda
- Engaging the audience in your presentation
- Addressing questions clearly and effectively

6. Cover Letter

- Reflecting a clear understanding of the organization or institution's mission and structure
- Clearly stating an interest in the position and your qualifications to fulfill the position
- Highlighting research and/or teaching interests
- Detailing the required competencies for the position mentioned in the CV or

résumé

7. Teaching Portfolio

- Teaching philosophy
- Course syllabus
- Lesson plans
- In-class and out-of class activities
- Assessment methods

Emerging Areas of Competencies: Collaborative Leadership

As an interdisciplinary scholar or researcher, regardless of your chosen career path, at some point you will likely find yourself engaged in a collaborative endeavor, such as co-teaching, collaborative research, or working on a team project. Working in teams often requires the ability to translate discipline-based concepts, methods and practices in ways that experts from other fields will find understandable. While your training and professional development as an interdisciplinary graduate student may have prepared you for this type of engagement across fields and disciplines, the same may not be true of those with whom you will work. Consequently, you will likely benefit from acquiring skills in the area of collaborative leadership.

Effective collaborative leadership requires considerable attention to group dynamics, the professional development of team members, negotiating the division of labor and credit, as well as managing conflict. Although there are specific skills and competencies required to effectively engage in collaborative and interdisciplinary activity, such as building trust and creating clarity, these are not routinely taught within the academic and professional curriculum. The Graduate School, in collaboration with the Office of the Provost, the Office of Human Resources Division of Organizational Effectiveness, and the Office of the Vice President for Research has developed a collaborative leadership development series to help individuals assess their collaborative leadership competencies and skills, and to identify areas in which they can enhance those skills (see <http://www.grad.umn.edu/oii/about/initiatives/leadership/>).

Rather than simply identifying the gaps in your skills and competencies, we encourage you to assess your collaborative leadership skills by reflecting on the unique traits you possess. These may be strengths that are not yet valued by your field(s) of study, but which have the potential to transform thinking and learning in your area of interest. It is also useful to keep in mind that the skills and competencies that are most useful for professional and career development are not a fixed set, but rather continuously change based on your experiences and your goals.

Step 2. Write an IDP

The IDP maps out the general path you want to take and helps match skills and strengths to your career choices. It is a changing document, since needs, skill levels

and goals will almost certainly evolve over time for graduate students. The aim is to build upon current strengths and skills by identifying areas for development and providing a way to address these. You should discuss your draft IDP with your mentor(s). Agree on a development plan that will allow you to be productive and adequately prepare you for your chosen career.

The specific objectives of a typical IDP are to:

- Identify specific skills and strengths that you need to develop (based on discussions with your mentor(s)). Mentors should provide honest feedback - both positive and negative - to help you set realistic goals.
- Identify a research or scholarly project and necessary level of commitment to match your abilities and career goals.
- Define the approaches to attain the research or scholarly goals you have chosen and obtain the specific skills and strengths (e.g., courses, technical skills, teaching, supervision) you need to acquire and/or build upon.
- Define milestones and anticipated time frames for achieving your goals.

Step 3. Implement the Plan.

The plan is just the beginning of the career development process and serves as the road map. To attain your goals, you must implement and assess the plan.

- Put your plan into action.
- Revise and modify the plan as necessary. The plan is not cast in concrete; it will need to be modified as circumstances and goals change. The challenge of implementation is to remain flexible and open to change.
- Review the plan with your mentor(s) regularly to assess progress, expectations and changing goals. Revise the plan on the basis of these discussions.

Step 4. Survey Potential Career Paths.

- Identify career opportunities and target those that interest you for further exploration.
- With your mentor(s), assess how your current skills and abilities match the competencies required of your chosen career(s).
- As necessary, revise your IDP to prioritize your developmental areas and discuss with your mentor(s) any skills or strengths you need to further develop before successfully transitioning.

Individual Development Plan Template

Areas to develop (Assess your scholarly and professional competencies. What do you	Goals: long—term (What will you do to improve in the areas	Goals: short—term (What could you do this	Overall Strategies for Reaching Goals	Steps and Timeline for completion of goals (What steps will you take	Resources available (Human, electronic, or other)	Outcomes (What will you have accomplished to indicate that you have reached your goals?)

need to develop?)	you have identified?)	year?)		to accomplish your goals and by when?		

Institutional Fit—Reflection on Values / As a Narrative Prompt⁵

Reflection: As part of the picture of your ideal job, you will want to think about what’s important to you in life—values, principles, what you’re willing to stand up for, and what you care about. To help spark more of that thinking, make use of the following questions and record your responses for looking at “later on.”

- What values do you hold most important?
- What is the goal you most want to work toward?
- Who are your heroes and heroines?
- What principles are you willing to stand up for?
- What do you think the purpose of your life is? What do you most want to accomplish?
- What in life do you think is worth making sacrifices for?
- What kinds of sacrifices are you willing/ not willing to make?

Values and Work

Look at your responses to the values prompts completed earlier. From these, chose those factors that seem to you particularly important in your future work. Discuss these with peers/mentors/people in your life and make note of the ideas that emerge.

Working Conditions

In what kind of place and under what conditions will you do your best work? Think both in terms of physical space and also the kind of work you’ll be doing. Discuss the following and note your responses.

- What’s your favorite kind of work? Do you prefer working with data, people, or ideas—and in what combination?
- What kind of physical space do you thrive in? Do you need privacy, noise? Do you like to be outdoors? Do you prefer to work alone or with others?
- How much autonomy do you need? Do you like to be supervised or to supervise others?
- What kind of financial and material resources do you need to do your ideal job?

⁵Developed by Bill Rozaitis and Ilene Alexander, University of Minnesota Center for Teaching and Learning

- Are there unique issues related to your working conditions that you should consider as an interdisciplinary scholar or researcher (e.g., need for lab or office space in more than one department, freedom to affiliated with research centers or institutes)?

Rewards at Work

Rewards are a particularly important part of any job. Consider what kinds of rewards your ideal job would give you and which are most important to you. Discuss and note your responses.

- Do you want a large salary or are other rewards more significant to you than money? What are those rewards?
- How important is tenure to you (if pursuing a faculty position)?
- How important is prestige and notoriety? Would you like to become an academic “star”?
- What do you consider the greatest rewards of teaching?
- What do you consider the greatest rewards of research and/or artistic and creative work?
- Will pursuit of your interdisciplinary interests impact your ability to earn rewards at work, either positively or negatively?

Balance

Among the advantages of a professional career can be the variety of work it offers. Finding the right balance between various aspects of your job is a crucial part of identifying how you and a position “fit.” Discuss the following and note your responses.

- What would be the best balance between aspects of the position/job duties as presented in the position description? Note what percentage of your time would be spent doing each as well as the degree of mobility/flexibility of each aspect (e.g., time spent working with colleagues and students within a disciplinary field versus interdisciplinary work and service).
- What is the best balance between time spent working and personal time? How many hours each week are you willing to devote to work?

Institutional Fit—Reflection on Values / As a Visual Prompt

Reflection: At what type of institution would you like to teach or conduct your scholarly work? Note your responses in the table below. As with any reflection on institutional/position fit, brainstorm, talk with others, show what you’ve noted to people who know you well.

Personal Feature	Institution and how it represents
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	a good fit
Personality	
Family Concerns (Personal Balance)	
Professional Goals (including commitment to interdisciplinarity)	
Values	
Teaching Considerations	

“Fit” – Job, Qualifications, Documentation

Analysis: Examine why you are suited to take on the position you’ve found given the context/setting/institution in which that position is located. As part of this process, fill in the table below.

My Qualifications and Experience	Job Qualifications and Duties	How I Will Show a “Fit” in Job Documents

Bill Rozaitis and Ilene Alexander, University of Minnesota, Center for Teaching and Learning.

Professional Development Resources

University of Minnesota

Center for Teaching and Learning: <http://www1.umn.edu/ohr/teachlearn/pff/>

Center for Human Resources Development: <http://www1.umn.edu/ohr/training/index.html>

Graduate School: <http://www.grad.umn.edu/>

Office of Interdisciplinary Initiatives: <http://www.grad.umn.edu/oii/>

International Scholar and Student Services (ISSS) Career:
<http://www.iss.umn.edu/career/workshops.html>

University Counseling and Consulting Services: <http://www.uccs.umn.edu/career.html>

Resources at Other Institutions

Federation of American Societies of Experimental Biology (FASEB) site:
<http://opa.faseb.org/pdf/idp.pdf>

Powerpoint Guide, by Dr. Philip Clifford (Medical College Wisconsin):
<http://www.the-aps.org/careers/careers1/Postdoc/Clifford.ppt>

Case Western Reserve University (CWRU) IDP posted online:
<http://www.cwru.edu/provost/gradstudies/docs/Postdoc%20IDP%20Form%20CURRENT.pdf>

CWRU IDP on-line instructions
<http://www.cwru.edu/provost/gradstudies/docs/IDP%20Instructions%20CURRENT.pdf>

Vanderbilt IDP example:
<https://medschool.mc.vanderbilt.edu/mentor/Individual%20Development%20Plan.pdf>

University of Washington Graduate School
<http://www.grad.washington.edu/mentoring/memos/individual-development-plan.pdf>

For further discussion, please see article by Laure Haak in Science Careers online supplement. "Career development is a two-way street: The FASEB individual development plan for postdocs and mentors":
http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/1960/a_career_development_plan_for_postdocs/

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Federation of American Societies of Experimental Biology (FASEB) website:
<http://opa.faseb.org/pdf/idp.pdf>

Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement).
<http://postdoc.sigmaxi.org/results/>

Conflict Management in Higher Education Report, Wayne State University. College of Urban, Labor, & Metropolitan Affairs:
<http://www.campus-adr.org/CMHER/Newsletter.html>

Annual Self Assessment for Postdoctoral Fellows, University of North Carolina Chapel Hill, Office of Postdoctoral Services
http://postdocs.unc.edu/postdoc_self_assessment_form.doc.

Work on institutional fit, developed by Bill Rozaitis and Ilene Alexander, University of Minnesota Center for Teaching and Learning