



<https://qb3.berkeley.edu/career-development/>

Assessment: Competencies, Skills and Abilities for QB3-Berkeley PhDs

The following checklist may give you a sense of skills or competencies you already have, and those you may want to develop. Use this list as a tool for informing your Individual Development Plan(s).

The list below was adapted from sources such as AAAS' *myIDP* and the National Postdoctoral Association's *Core Competencies* (see below for more information), and tailored specifically to align with the UC Berkeley Grad Division's "Professional Development Guide" -

<https://grad.berkeley.edu/professional-development/guide/>

Competency/Skill/Abilities list	Check if you already have this skill/competency	Check if you want to develop it (further)
Research and Data Analysis		
Basic bench skills		
Broad knowledge of science		
Computational analysis		
Critical reading of scientific literature		
Data management		
Design of scientifically testable hypotheses		
Experimental design		
Form and defend independent conclusions		
Knowledge of my research area Specific knowledge 1: Specific knowledge 2:		
Lab safety		
Responsible conduct of research Conflicts of interest Data ownership and sharing Identifying and mitigating research misconduct Publication practices and responsible authorship Research involving animals (when applicable) Research with human subjects (when applicable)		

Technical skills related to my research area Skill 1: Skill 2:		
Written and Verbal Communication		
Cross-cultural awareness		
Debate issues in a collegial manner		
Edit your own writing		
Engage an audience in a presentation, including addressing questions clearly and effectively		
English fluency - grammar/structure		
Explain complex or difficult concepts in basic terms and language		
Organize and communicate ideas effectively in oral presentations to small and large groups		
Participate in group discussions		
Prepare concise and logically-written materials		
Use logical argument to persuade others		
Write for a specific audience (non-scientists, research proposal or publication)		
Write at varied levels or lengths — brief abstract to full article		
Write grant proposals		
Teaching and Mentoring		
Adapt teaching to meet the needs of people with different skill levels or backgrounds		
Convey complex information to non-experts		
Evaluate others' performance		
Implement curriculum		
Monitor/oversee the work of others in a lab or classroom		
Provide constructive feedback		
Provide instruction to small and large cohorts		

Serve as a role model		
Set expectations for others		
Leadership and Management		
Budget management		
Evaluate individual and group dynamics and performance		
Group management (delegating, dealing with conflict, inspiring and motivating others)		
Maintain flexibility in the face of changing circumstances		
Manage resources		
Negotiate/advocate to achieve goals		
Outreach and community engagement		
Problem solving/troubleshooting		
Project Management (planning, breaking down complex tasks, prioritize tasks, realistic timeline for completion)		
Strategic vision - goal setting		
Time management		
Understand unconscious bias		
Career Exploration and Preparation		
Self-awareness - understand and articulate personal values, interests, and personal qualities		
Communicate your scholarly, research and career interests		
Network - identifying opportunities to meet with individuals who may be interested in your research and professional experiences		
Conduct effective informational interviews		
Job market assessment – understand economic and industry trends		
Understand hiring trends and conventions for a specific field		
Identify specific employment opportunities		
Properly identify essential qualifications		

Write effective CV/résumé and cover letter		
Interview preparation: Understand different types of interviews for industry and academia Handle difficult questions Formulate interview questions to ask employer Knowledgeable of employer culture		
Negotiate (job) offers effectively		
Understand workplace rights		
Professionalism		
Aware of dimensions of diversity, equity, inclusion and belonging and make efforts to contribute to building DEIB in community		
Contribute to department and campus (committees, etc)		
Develop and sustain collaborations		
Contribute to discipline broadly (such as engagement with scholarly/professional society)		
Independent/effective self-management		
Lab citizenship: ethics and etiquette		
Manage setbacks		
Navigate bureaucratic environments		
Productive when faced with ambiguity		
Time management		
Uphold commitments/deadlines		

Note: this checklist is not meant to be comprehensive. You can add your own competencies/skills or check out similar resources from:

- AAAS' myIDP (requires free account) - <http://myidp.sciencecareers.org/>
- American Chemical Society's ChemIDP – (requires free account) <https://chemidp.acs.org/>
- National Postdoc Association (NPA) Core Competencies - <https://www.nationalpostdoc.org/?CoreCompetencies>
- UC Berkeley's VSPA's "Postdoc Core Competencies" - <https://vspa.berkeley.edu/postdoc-core-competencies>