Career Planning Timeline for Doctoral Researchers

Helps you prepare for your career...

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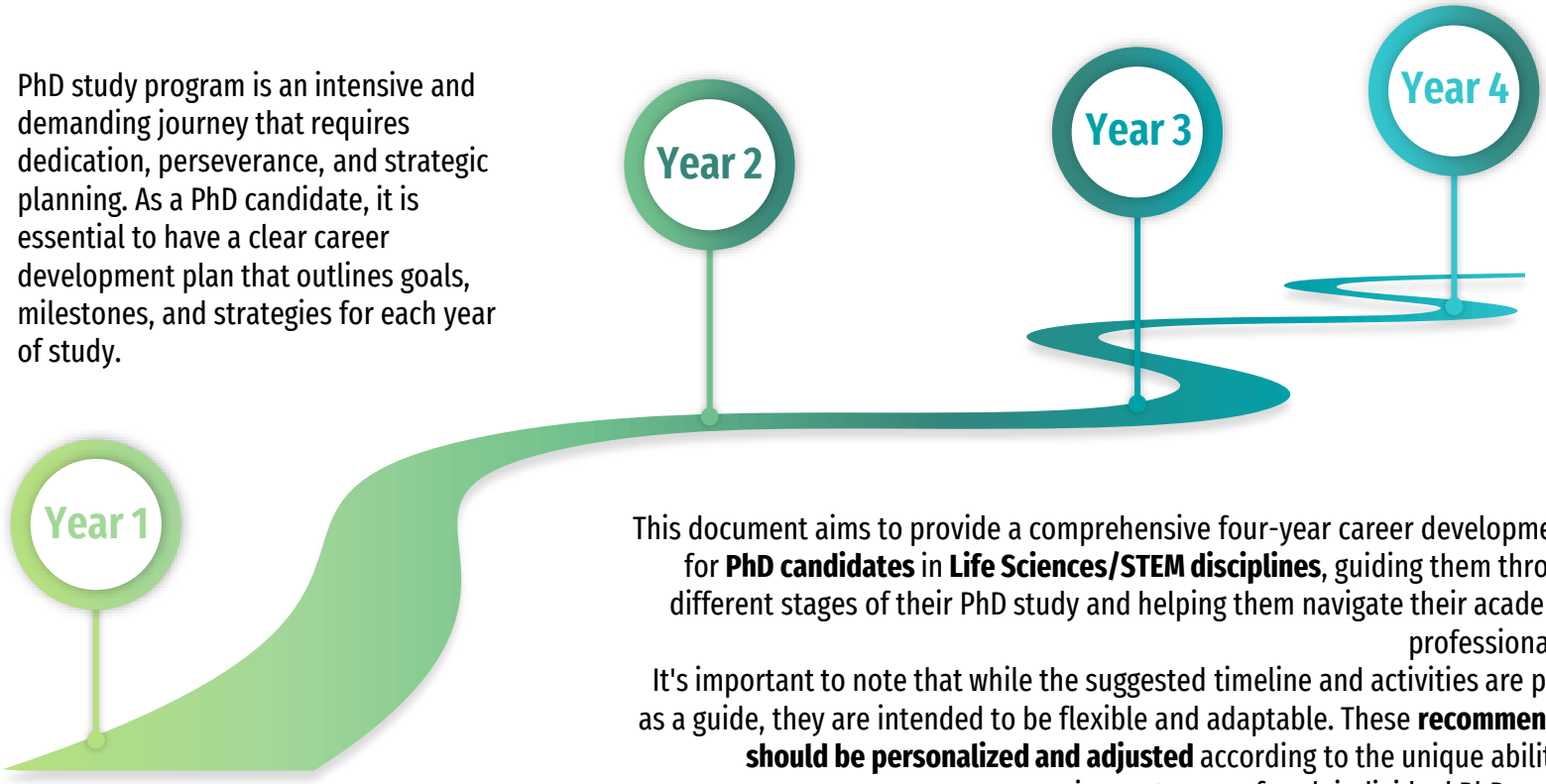
PhD study program is an intensive and demanding journey that requires dedication, perseverance, and strategic planning. As a PhD candidate, it is essential to have a clear career development plan that outlines goals, milestones, and strategies for each year of study.



This document aims to provide a comprehensive four-year career development plan for **PhD candidates** in **Life Sciences/STEM disciplines**, guiding them through the different stages of their PhD study and helping them navigate their academic and professional paths.

It's important to note that while the suggested timeline and activities are provided as a guide, they are intended to be flexible and adaptable. These **recommendations should be personalized and adjusted** according to the unique abilities and circumstances of each individual PhD candidate.

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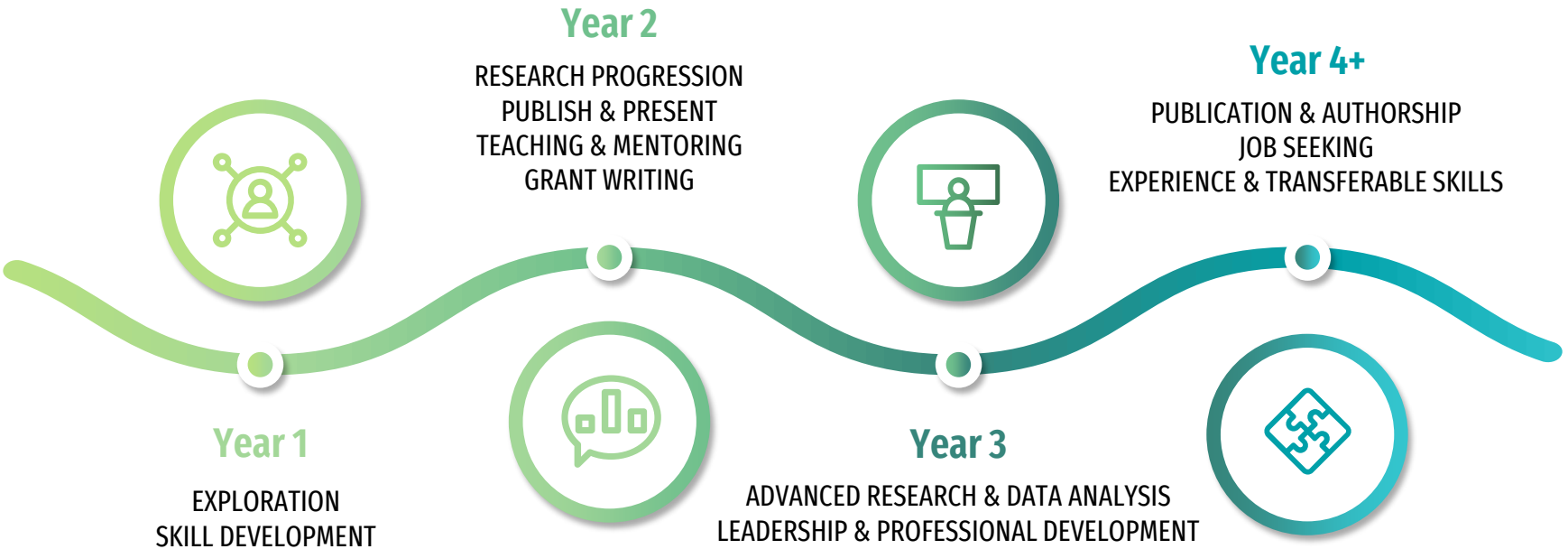


Year 1

EXPLORATION

Establish a research plan with specific milestones in cooperation with your supervisor and dive straight into your chosen research topic. While focusing on your research, find some time to attend seminars, conferences, and departmental presentations to explore different areas of research. Engage in discussions with senior researchers to gain valuable insights into various aspects of your planned research. This dual approach ensures both depth and breadth of knowledge. Additionally, it will help you to be well-prepared for the state doctoral exams.

SKILL DEVELOPMENT

Identify and enroll in relevant coursework to strengthen your foundational knowledge in the field of study. Focus on acquiring both technical and transferable skills, such as data analysis, scientific writing, presentation skills, and project management. Take advantage of workshops and training programs offered by your institution.

NETWORKING & COLLABORATION

Engage actively in departmental activities and networking events on campus to build relationships with fellow students, faculty members, and professionals in the field. Collaborate with peers on research projects, attend lab meetings, and participate in journal clubs. Seek opportunities to present your work at local conferences or symposiums.

Year 1

TIPS

- Create a LinkedIn Profile and update it regularly. To make your research more visible, use ORCID, Google Scholar or ResearchGate.
- Stay informed by reading the periodic newsletter from your institute, where you can delve into the latest updates on current events, workshops, and more.
- Familiarize yourself with your department‘s cycle of regular deadlines: research & travel grants, course proposals, fellowships, etc.
- Carefully curate your mentoring team (Thesis Advisory Committee), handpicking seasoned experts in the field who possess a wealth of experience and knowledge.
- Work on your language skills, explore the offer of the Language Centre at your institution and consider enrolling in courses focused on oral and written presentation.
- Present your project and plans at the 1st TAC meeting, seek valuable feedback from TAC members, and further integrate their insights.

Year 2

RESEARCH PROGRESSION

Regularly meet with your supervisor and your mentoring team to discuss progress, address challenges, and refine your research objectives. Aim to complete substantial experiments or data collection during this year.

PUBLISH & PRESENT

Prepare and submit your research findings to relevant journals for publication (e.g. proceedings papers). Collaborate with your supervisor and peers to develop manuscripts and present your work at conferences (e.g. posters at national conferences). Seek feedback from experts in the field to improve the quality of your research and publications.

TEACHING & MENTORING

Explore opportunities to gain teaching experience, such as serving as a teaching assistant or guest lecturer for undergraduate courses. Mentor junior students in the lab and assist with their research projects. These experiences will enhance your communication skills, teaching abilities, and leadership qualities.

GRANT WRITING

Develop skills in grant writing by seeking guidance from your supervisor or attending workshops on grant proposal preparation. Identify funding opportunities and prepare grant applications to secure financial support for your research. This experience will be valuable for future grant applications and increase your chances of obtaining external funding.

Year 2

TIPS

- Embrace the opportunity to take on the role of a supervisor and assume the position of a leader of a scientific project designed for high school students (e.g. SOČ = Secondary School Research).
- To enhance your networking skills, consider joining the PhD student community in your institution and actively engage in organizing informal events.
- Deliberate on the ideal destination for an international internship, seizing this valuable opportunity to cultivate a global network and expand your professional connections beyond borders.
- Analyze alternative career paths through various lectures, career webinars, or company excursions.
- Take advantage of the insights and recommendations provided during the 2nd TAC meeting to refine your research approach and overcome obstacles effectively.

Year 3

ADVANCED RESEARCH & DATA ANALYSIS

Focus on the advanced aspects of your research project, analyze collected data, and draw meaningful conclusions. Discuss your findings with your advisor and collaborators, seeking input to refine your research further. Consider presenting your work at international conferences to gain exposure to a broader scientific community.

PROFESSIONAL DEVELOPMENT

Join relevant professional societies and attend workshops or seminars on career development, grant writing, and scientific communication. Consider organizing conferences or symposia to enhance your project management and networking skills.

GLOBAL NETWORKING

Engage in global networking and be exposed to diverse perspectives, cultures, and research methodologies, fostering a broader understanding of your field of study. Internships abroad are opening doors to future collaborations, conferences, and publications. Establishing connections with renowned experts in your field can boost the visibility of your work and lead to potential career opportunities worldwide. While adapting to new academic and social settings, you are enhancing your adaptability and resilience, qualities highly valued in today's globalized academic landscape.

Year 3

TIPS

- Realize the internship abroad. Who knows, it can lead to groundbreaking discoveries and novel insights that may shape the trajectory of your research.
- Take part in excursions to industry companies and explore other opportunities for internships or job offers.
- Explore the Career Center website to learn about personalized counselling, training seminars, workshops, and other key activities involved in your job search.
- Update and polish your CV to perfection or craft a tailored resume that captures your unique qualifications.
- Share insights from your internship at the TAC meeting. Seek valuable advice to shape your career plans.

Year 4+

PUBLICATION & AUTHORSHIP

Aim to publish your research in high-impact peer-reviewed journals, leveraging the expertise of your supervisor. Collaborate with experts in the field to increase the visibility and impact of your work. Be mindful of authorship guidelines and ethical considerations while determining authorship order.

JOB SEEKING

Alert your network to let them know you are on the job market. Attend job fairs and networking events geared towards job seekers meeting recruiters. Visit the Career Center to practice interviewing. Learn about job salaries in your field as well as negotiating a job offer. Do not forget to balance your time between job-seeking activities and finishing your dissertation.

EXPERIENCE AND TRANSFERABLE SKILLS

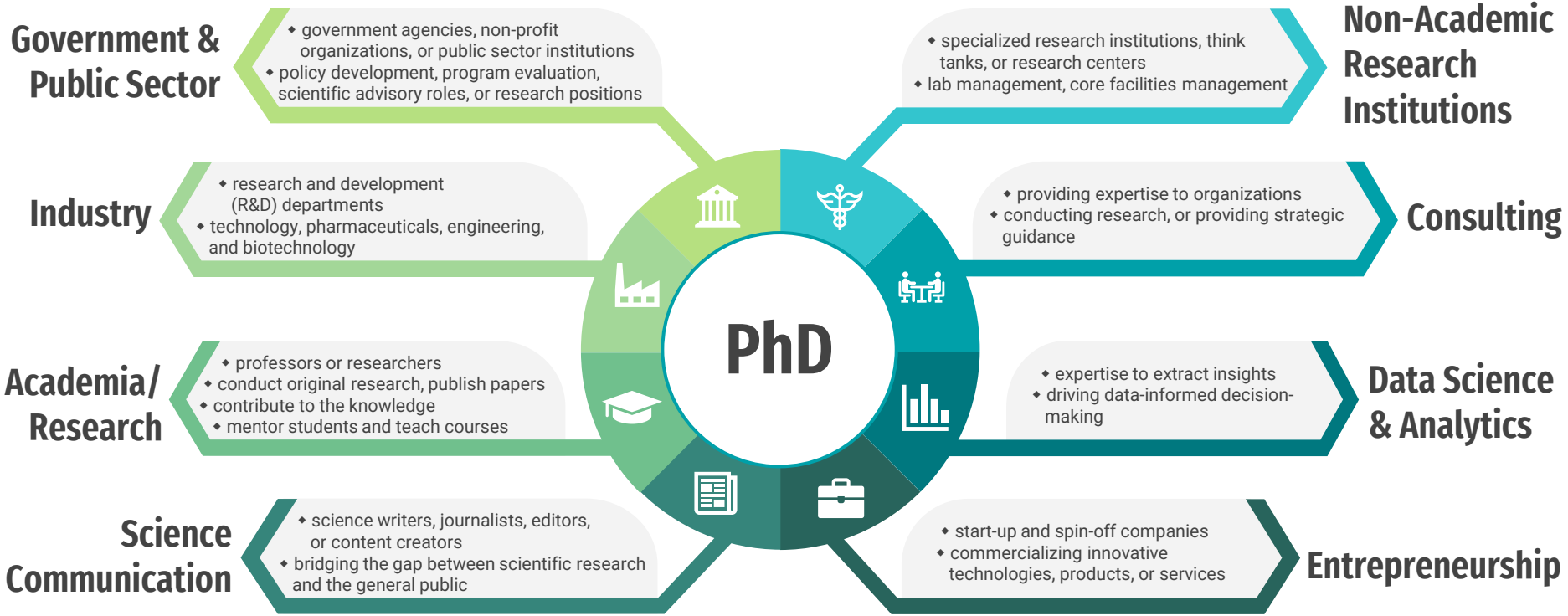
Conduct thorough research and actively pursue summer internships, employment opportunities, or volunteer work to delve into new experiences and refine your transferable skills. This is particularly beneficial if you have not yet secured a job or if your current employment is scheduled to begin in the fall.

Year 4+

TIPS

- Dedicate time to carefully craft your cover letter, contemplating potential letter recommenders and/or references, ensuring that one of them is your supervisor. If needed, arrange meetings with them to discuss your goals, provide them with an updated resume, and ensure they are well-informed about your aspirations.
- If considering a career in academia, become familiar with relevant journals and prominent figures in your field for potential publishing opportunities.
- Upon successfully finishing your PhD, do not forget to stay in touch with your alma mater. Cultivate these valuable connections, as they can prove immensely beneficial in your future career endeavors. Take advantage of any alumni support programs offered by your institute.
- During follow-up TAC meetings, be ready to articulate your plans for completing your studies and outline future career aspirations. If there are any reasons for delays in your study completion, use this opportunity to discuss them openly. The TAC members are here to assist you in refining your research plan and providing guidance for a successful academic journey.

Various Career Paths



Desirable Skills Questionnaire

INSTRUCTIONS

To identify the skills you need to work on, you can go through the following questionnaire and assess your competencies and abilities.

1. How do you assess your personal effectiveness?

Question instructions: *I consider myself to be ...*

	-2	-1	0	1	2	
Weak in TIME-MANAGEMENT	◯	◯	◯	◯	◯	Strong in TIME-MANAGEMENT
Weak in WORK-LIFE BALANCE	◯	◯	◯	◯	◯	Strong in WORK-LIFE BALANCE
Weak in CRITICAL THINKING	◯	◯	◯	◯	◯	Strong in CRITICAL THINKING
Weak in TEAM-BUILDING AND LEADERSHIP	◯	◯	◯	◯	◯	Strong in TEAM-BUILDING AND LEADERSHIP
Weak in PROBLEM-SOLVING	◯	◯	◯	◯	◯	Strong in PROBLEM-SOLVING

Desirable Skills Questionnaire

2. How do you assess your communication abilities?

Question instructions: *I consider myself to be …*

	-2	-1	0	1	2	
Weak in ORAL PRESENTATION	◯	◯	◯	◯	◯	Strong in ORAL PRESENTATION
Weak in WRITTEN PRESENTATION	◯	◯	◯	◯	◯	Strong in WRITTEN PRESENTATION
Weak in NETWORKING	◯	◯	◯	◯	◯	Strong in NETWORKING
Weak in TEACHING	◯	◯	◯	◯	◯	Strong in TEACHING

Desirable Skills Questionnaire

3. How do you assess your influence and impact?

Question instructions: *I consider my knowledge to be …*

	-2	-1	0	1	2	
Weak in PUBLIC ENGAGEMENT (e.g. SCIENCE POPULARISATION)	◯	◯	◯	◯	◯	Strong in PUBLIC ENGAGEMENT (e.g. SCIENCE POPULARISATION)
Weak in COMMERCIALIZATION AND PATENTS	◯	◯	◯	◯	◯	Strong in COMMERCIALIZATION AND PATENTS
Weak in ETHICS, PRINCIPLES AND SUSTAINABILITY	◯	◯	◯	◯	◯	Strong in ETHICS, PRINCIPLES AND SUSTAINABILITY

Desirable Skills Questionnaire

4. How do you assess your knowledge and research management?

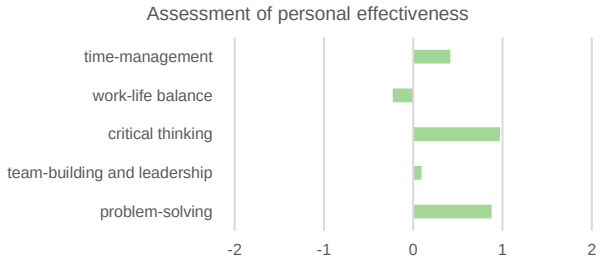
Question instructions: *I consider myself to be …*

	-2	-1	0	1	2	
Weak in KNOWLEDGE OF MY RESEARCH FIELD	◯	◯	◯	◯	◯	Strong in KNOWLEDGE OF MY RESEARCH FIELD
Weak in LABORATORY METHODS	◯	◯	◯	◯	◯	Strong in LABORATORY METHODS
Weak in INFORMATION SEEKING	◯	◯	◯	◯	◯	Strong in INFORMATION SEEKING
Weak in PROJECT MANAGEMENT	◯	◯	◯	◯	◯	Strong in PROJECT MANAGEMENT
Weak in WRITING FUNDING APPLICATIONS	◯	◯	◯	◯	◯	Strong in WRITING FUNDING APPLICATIONS

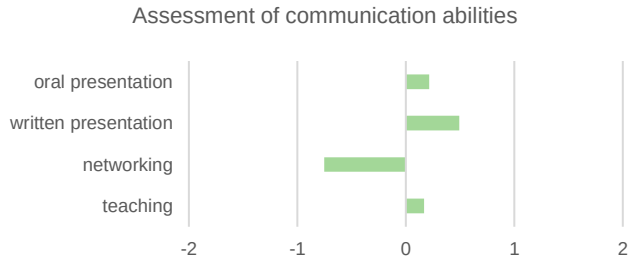
Desirable Skills Questionnaire

RESULTS FROM THE SURVEY REALIZED IN 2023 AT CEITEC MU, IMB, JGU; RESPONDENTS: 65 PHD CANDIDATES

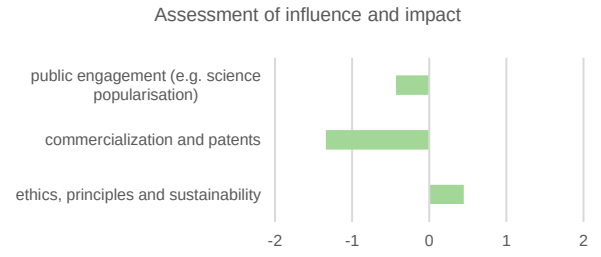
1. How do you assess your personal effectiveness?



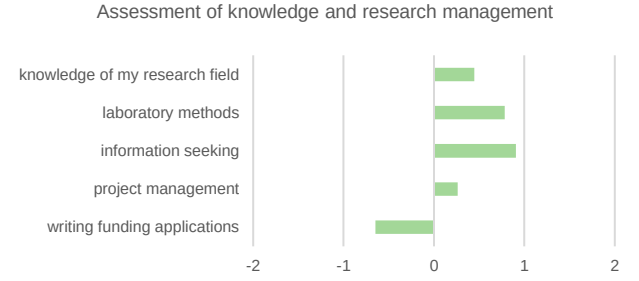
2. How do you assess your communication abilities?



3. How do you assess your influence and impact?



4. How do you assess your knowledge and research management?



A TIP for free online tool

myIDP ScienceCareers
INDIVIDUAL DEVELOPMENT PLAN

https://myidp.sciencecareers.org/

In 2003, the Federation of American Societies for Experimental Biology (FASEB) proposed an Individual Development Plan (IDP) framework for postdoctoral fellows in the sciences. The result is myIDP - a unique, web-based career-planning tool tailored to meet the needs of PhD students and postdocs in the sciences.

myIDP provides:

- 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
- Articles and resources to guide you through the process