

Nature Masterclasses On-demand recommended courses by career stage (July 2025)

Nature Masterclasses On-demand currently offers 24 courses designed to support researchers across the whole research life cycle. We understand that every stage of a researcher's journey comes with unique challenges. Whether you are just starting out or already well into your academic career, we're here to provide tailored support and help you build essential skills for your success. That's why we've created two dedicated pages with course recommendations, designed to match your current goals and learning needs.

These recommendations are based on typical career progression needs. While PhD students can benefit from some postdoc-focused courses and vice versa, the distinction helps prioritise learning at each career stage.

	Courses recommended for PhD students (See pp. 2-3)	Courses recommended for postdoctoral researchers (See pp. 4-6)
Design Research	Experiments: From Idea to Design	
Secure Funding	Persuasive Grant Writing	Persuasive Grant Writing Finding Funding Opportunities
Experiment and Analyse	Data Analysis: Planning and Preparing Data Analysis: Conducting and Troubleshooting Interpreting Scientific Results Managing Research Data	Interpreting Scientific Results
Write and Publish	Choosing the Best Journal for Your Paper Writing a Research Paper: 2nd Ed. Publishing a Research Paper: 2nd Ed. Research Integrity: Publication Ethics	Writing a Research Paper: 2nd Ed. Publishing a Research Paper: 2nd Ed. Writing and Publishing a Review Paper: 2nd Ed. Focus on Peer Review Research Integrity: Publication Ethics
Share and Disseminate	Creating Successful Research Posters	Advancing Your Scientific Presentations Effective Science Communication Maximising the Impact of your Paper Narrative Tools for Researchers
Develop your Career	Building a Strong Online Researcher Profile Getting an Academic Research Position	Getting an Academic Research Position
Work with Others	Introduction to Collaboration	Networking for Researchers Participating in a Collaboration Leading a Collaboration

Courses recommended for PhD students

As a PhD student, you need tailored support and resources to excel in your academic career. To support your journey, we have carefully shortlisted courses that are most relevant to your learning needs. Whether you are preparing to publish, aiming to improve your research skills, or seeking guidance on the best practices for communicating your research findings, our practical training courses will help you build a solid foundation for future success.

Design Research

[Experiments: From Idea to Design](#)

PhD students spend a significant portion of their time designing and conducting experiments, so mastering experimental design is essential.

Secure Funding

[Persuasive Grant Writing](#)

While PhD students may not apply for large grants, they often need to secure funding for conference travel, research visits, or small project grants. This course introduces them to effective grant-writing techniques that will resonate with their audience and make them more informative and persuasive.

Experiment and Analyze

[Data Analysis: Planning and Preparing](#)

This course will give PhD students a strong foundation in data analysis. It introduces the essential elements of robust data analysis during a research project, emphasising the importance of planning and preparation to avoid time-consuming and costly mistakes.

[Data Analysis: Conducting and Troubleshooting](#)

This course covers key concepts, processes, and methodologies for effective data analysis during research projects, including exploring datasets, selecting appropriate analytic methods, and troubleshooting, which are fundamental for PhD students.

[Interpreting Scientific Results](#)

Analysing data correctly is a key skill for PhD students, as misinterpretation of results can lead to incorrect conclusions and wasted time.

[Managing Research Data](#)

Good data management practices are critical for PhD students to ensure research integrity, reproducibility, and compliance with institutional policies. They will learn how to create and maintain a data management plan, and best practices for organising, storing, archiving and quality-checking their data.

Write and Publish

[Choosing the Best Journal for Your Paper](#)

Many PhD students may be publishing for the first time and will need the skills to review and select from a vast range of academic journals to ensure their research reaches the appropriate audience. In this course, they will learn how to critically analyse key criteria — including aims and scope, publishing model, journal metrics and publishing costs — in a clear step-by-step process.

Writing a Research Paper: 2nd Edition

PhD students must develop strong academic writing skills early in their careers, as publishing their first papers is crucial for their progression in research.

Publishing a Research Paper: 2nd Edition

Publishing research findings is a pivotal component of doctoral studies. Understanding the intricacies of the publication process – such as journal policies, manuscript preparation, and navigating peer review – right from the start will enhance PhD students' ability to publish their research effectively.

Research Integrity: Publication Ethics

This course is essential for researchers at all career stages because ethical publishing practices are fundamental to maintaining integrity in academia. Many PhD students are publishing for the first time and may be unfamiliar with ethical guidelines. In this course, they will learn about issues such as proper authorship credit, avoiding plagiarism, and handling data responsibly to avoid common mistakes.

Share and Disseminate

Creating Successful Research Posters

Posters are often a PhD student's first opportunity to showcase their work at conferences, and a well-designed poster can increase visibility and networking opportunities.

Develop your Career

Building a Strong Online Researcher Profile

PhD students are just beginning to establish their professional identity, and this course helps them build visibility in the research community early in their careers.

Getting an Academic Research Position

PhD students must plan their next career step. If they are applying for a postdoctoral position, this course will provide essential guidance on how to find career opportunities that align with their interests, skills and goals; tailor job applications and prepare for interviews; and make informed decisions when choosing between multiple opportunities.

Work with Others

Introduction to Collaboration

Many PhD students work in teams or on international projects, and learning how to collaborate effectively can enhance research outcomes.

Courses recommended for postdoctoral researchers

Professional training can provide you with the skills and expertise to take the next steps in your career and advance with confidence. We have selected the courses that are most relevant for postdoctoral researchers to support your learning needs. Whether you are applying for funding, refining your publishing strategy, or honing your leadership skills, our training courses offer practical tools to help you succeed.

Secure Funding

[Persuasive Grant Writing](#)

As postdoctoral researchers transition towards independent research roles, the ability to write competitive grant proposals becomes critical. This course equips them with the skills to craft compelling funding applications, structure their proposals effectively, and increase their chances of securing research grants.

[Finding Funding Opportunities](#)

Postdoctoral researchers often need to secure independent funding to support their research, whether through fellowships, grants, or project funding. This course helps them navigate the complex funding landscape, identify the best opportunities for their career stage, and develop strategies for successful applications.

Experiment and Analyze

[Interpreting Scientific Results](#)

Being able to confidently contextualise research findings, particularly when results are unexpected, and mentor others through this process is important for postdoctoral researchers to effectively communicate their research.

Write and Publish

[Writing a Research Paper: 2nd Edition](#)

As postdocs move towards independent research, writing clear, compelling papers is crucial. The course provides techniques for structuring manuscripts effectively, strengthening arguments, and improving clarity.

[Publishing a Research Paper: 2nd Edition](#)

While PhD students also publish, postdoctoral researchers must publish regularly and strategically to establish their reputation as independent researchers. By refining their publishing skills, postdoctoral researchers can increase their chances of securing grants, faculty positions, and collaborations, making this course an essential tool for their academic success.

[Writing and Publishing a Review Paper: 2nd Edition](#)

By publishing a review paper, postdocs can position themselves as experts and advance their careers in academia. In this course, postdoctoral researchers will learn approaches, techniques and skills important for writing a strong review paper – such as identifying, selecting and synthesising primary literature and constructing an engaging review – as well as navigating the submission process for both solicited and unsolicited reviews.

Focus on Peer Review

Postdoctoral students might be invited to review others' work later in their careers. This course provides the foundations and best practices of a good peer review.

Research Integrity: Publication Ethics

This course is essential for researchers at all career stages because ethical publishing practices are fundamental to maintaining integrity in academia. Postdoctoral researchers are often more involved in mentoring junior researchers, leading projects, and submitting multiple publications, making ethical considerations even more critical. As they move towards independent research, maintaining a strong ethical foundation is essential for securing funding and long-term academic success.

Share and Disseminate**Advancing Your Scientific Presentations**

Postdoctoral researchers frequently present at seminars and conferences, so learning how to develop their research story, build a slide deck, and prepare and deliver their presentation effectively are key elements to their success.

Effective Science Communication

Learning to explain research in an engaging way is essential for early-career researchers, especially for postdoctoral researchers who might need to share findings with both academic and non-academic audiences.

Maximising the Impact of Your Paper

At the postdoctoral stage, researchers need to go beyond simply publishing; they must actively promote and track the impact of their work in order to increase citations, collaborations and funding opportunities.

Narrative Tools for Researchers

Postdocs need to develop storytelling techniques to make their research papers, presentations and proposals more engaging, compelling and memorable.

Develop your Career**Getting an Academic Research Position**

Postdoctoral researchers must plan their next career step. If they are applying for a faculty position, this course will provide essential guidance on how to find career opportunities that align with their interests, skills and goals; tailor job applications and prepare for interviews; and make informed decisions when choosing between multiple opportunities.

Work with Others**Networking for Researchers**

Building a professional network is crucial for career advancement, and postdocs should learn to build and maintain connections, both online and in person, from an early stage in their careers.

Participating in a Collaboration

As early-career researchers, postdocs often participate in collaborative projects led by more senior researchers. Understanding their role and how to become an effective and valuable member of the team is key.

Leading a Collaboration

Postdoctoral researchers might go on to take leadership roles in collaborations, supervising junior researchers or managing multi-institution projects. This course will equip them to set up, lead, manage and close down their own collaborative research project.