

# Nature Masterclasses On-demand

University of Tsukuba  
November 29, 2025



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**nature**  
masterclasses

# Agenda

## **Part 1: 13:00-13:20 - Introduction to Nature Masterclasses On-demand (NMO)**

Shoji Takahashi (Customer Engagement Manager)

1. What is Nature Masterclasses On-demand?
2. User Registration and Login
3. How to Navigate the Platform
4. Appendix: Available Courses

## **Part 2: 13:20-14:30 - Principles of Scientific Writing**

Maybelline Yeo, PhD (Trainer and Editorial Development Advisor)

\* Both slide decks will be shared with you after the session.

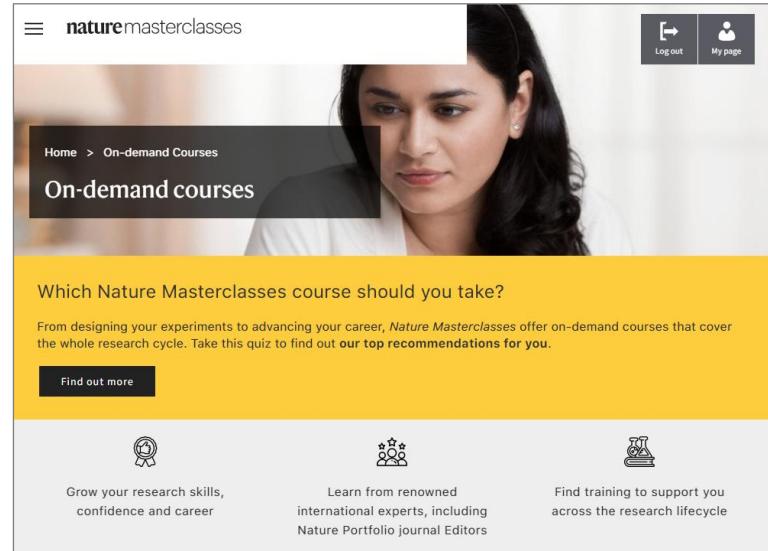
# 1

## **What is Nature Masterclasses On-demand?**

# What is Nature Masterclasses On-demand?

Nature Masterclasses On-demand is an online training program for researchers, aimed at improving research skills and supporting career development.

- All faculty and students at University of Tsukuba have access to Nature Masterclasses On-demand.
- Remote access is available.



The screenshot shows the homepage of the **naturemasterclasses** website. At the top, there is a navigation bar with a menu icon, the website name, and user icons for 'Log out' and 'My page'. Below the header, a large image of a woman in a lab coat is displayed. A dark overlay box contains the text 'Home > On-demand Courses' and 'On-demand courses'. The main content area has a yellow header with the text 'Which Nature Masterclasses course should you take?'. Below this, a paragraph explains that the site offers on-demand courses covering the research cycle, and a 'Find out more' button is present. At the bottom, there are three sections with icons: a trophy for 'Grow your research skills, confidence and career', a group of people for 'Learn from renowned international experts, including Nature Portfolio journal Editors', and a flask for 'Find training to support you across the research lifecycle'.

# What is Nature Masterclasses On-demand?



## Expert training

High-quality courses drawing on the expertise of *Nature Portfolio* journal editors and leading international experts from academia and industry



## Designed for busy researchers

To accommodate researchers' busy schedule, our training is **self-paced**, bite-sized and in a **dip in and out** format, so they don't have to study the course in one go



## Tailored to researchers

Our courses are designed and developed using a **data-driven** approach to understand and fulfill researchers' specific needs

## Contributors to course development



**Magdalena Skipper**  
Editor in Chief, *Nature* and  
Chief Editorial Advisor,  
*Nature Portfolio*



**W. John Kao**  
Chair Professor of  
Translational Medical  
Engineering, The  
University of Hong Kong



**David Rueda**  
Professor and Chair of  
Molecular and Cellular  
Medicine, Imperial  
College London



**Paola Quattroni**  
Alliance Delivery  
Manager, Health Data  
Research UK



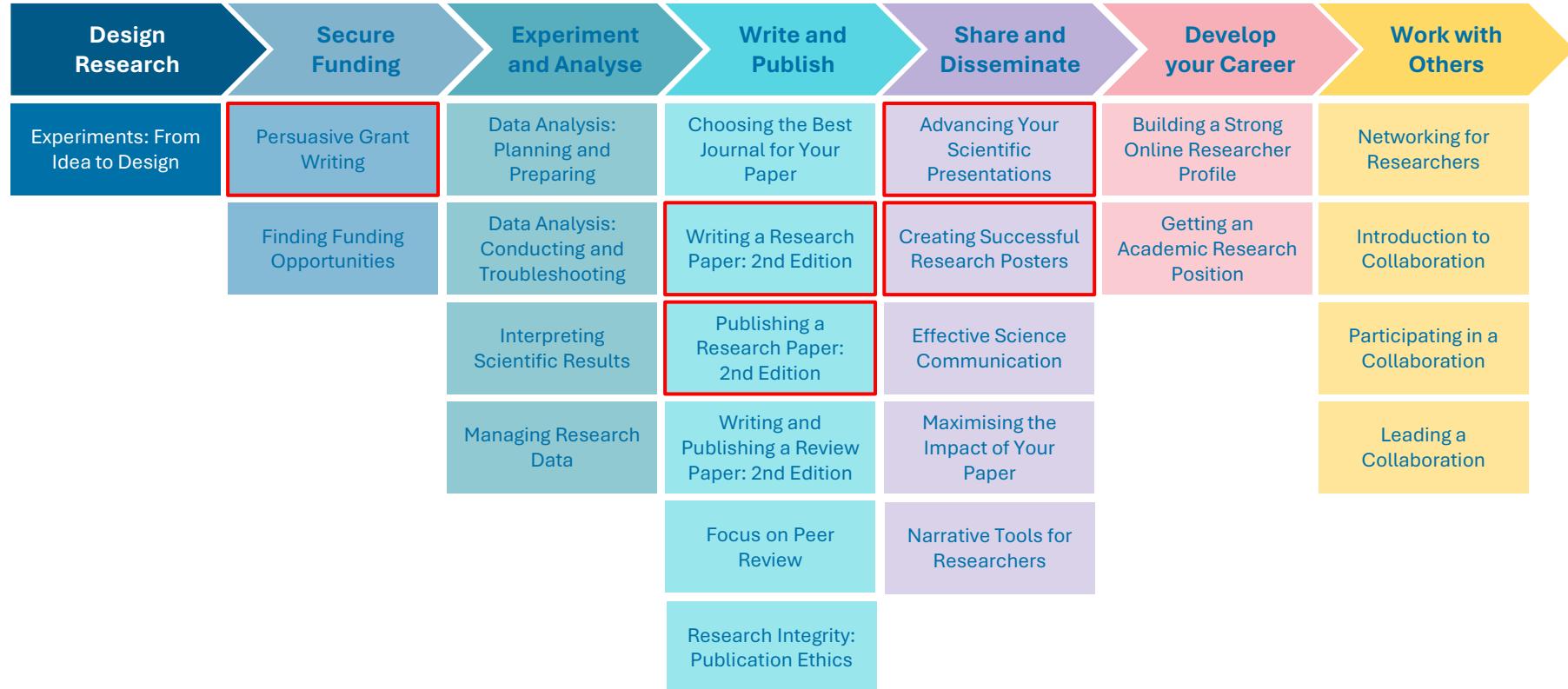
**Helen Pearson**  
Chief Magazine Editor,  
*Nature*, Springer Nature



**Peter Gorsuch**  
Chief Editor and Product  
Manager, *Nature*  
*Research Editing Service*,  
Springer Nature

# Available courses

The courses support researchers across the whole research life cycle.





# Writing a Research Paper: 2nd Edition **Popular!**

Learn the detailed processes of writing a research paper

PhD students	Postdocs
✓	✓

## About this course

Writing research papers allows you to contribute to the scientific record, and is critical for advancing your career. To ensure that the findings you have invested so much effort in have an impact on your scientific community, it is pivotal that the paper you write is effective. This course will introduce you to powerful narrative tools and principles of scientific writing to help you write effective research papers.

## Course details

- For researchers in the natural sciences looking to write effective research papers
- With insights from 12 experts in scientific writing, including *Nature Portfolio* Editors
- 14.5 hours of learning, 10-50-minute lessons, 5-module course with certificate

## Modules

- Understanding the elements of an effective research paper (2h)
- Applying narrative tools to your research paper (3h)
- **Using the principles of scientific writing style for your research paper (2h)**
- Writing your research paper section by section (5h 30m)
- Finalising your research paper for submission (2h)

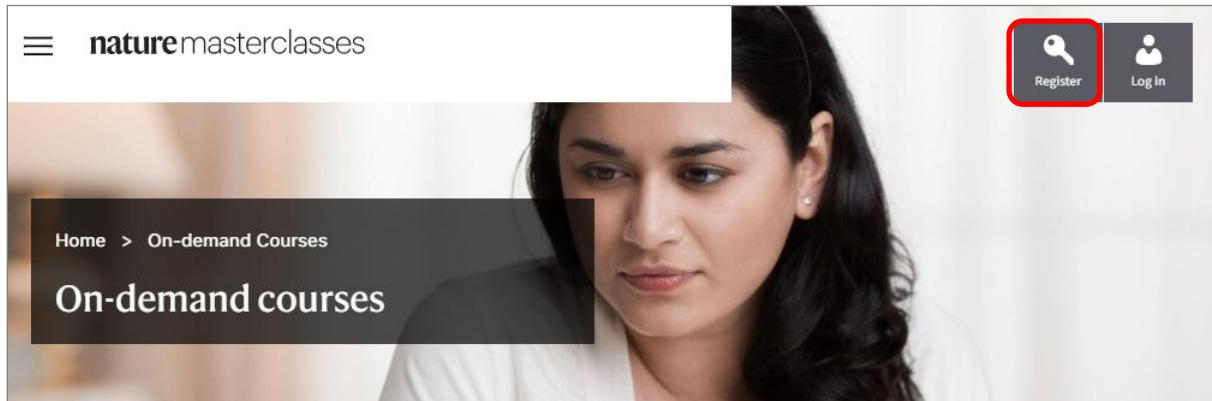
# 2

## User Registration and Login

# Registering for the first time

The first time you register, you need to be connected to the university network. If you are off-campus, make sure you are connected to the university network remotely via VPN.

1. Visit <https://masterclasses.nature.com/catalogue>
2. Select [Register]



After registration, NMO will remember your institutional IP address and it will enable you to access the course with any internet connection for 6 months. If you have been off campus for over 6 months after your initial registration, you will need to log in from the university network to refresh your connection.

# How to register

3. Click “Your institution” and select your institution from the drop-down menu
4. Enter your password twice
5. Enter your email address
6. Complete the profile with your personal information

Registration

Please type only in English and Latin characters as this form is unable to accept other character types.

\* denotes mandatory fields

\* Your institution

Tsukuba 

Institution not listed

University of Tsukuba

\* Create a password

\* Confirm password

\* email address

\* First name

\* Last name

\* Job Title

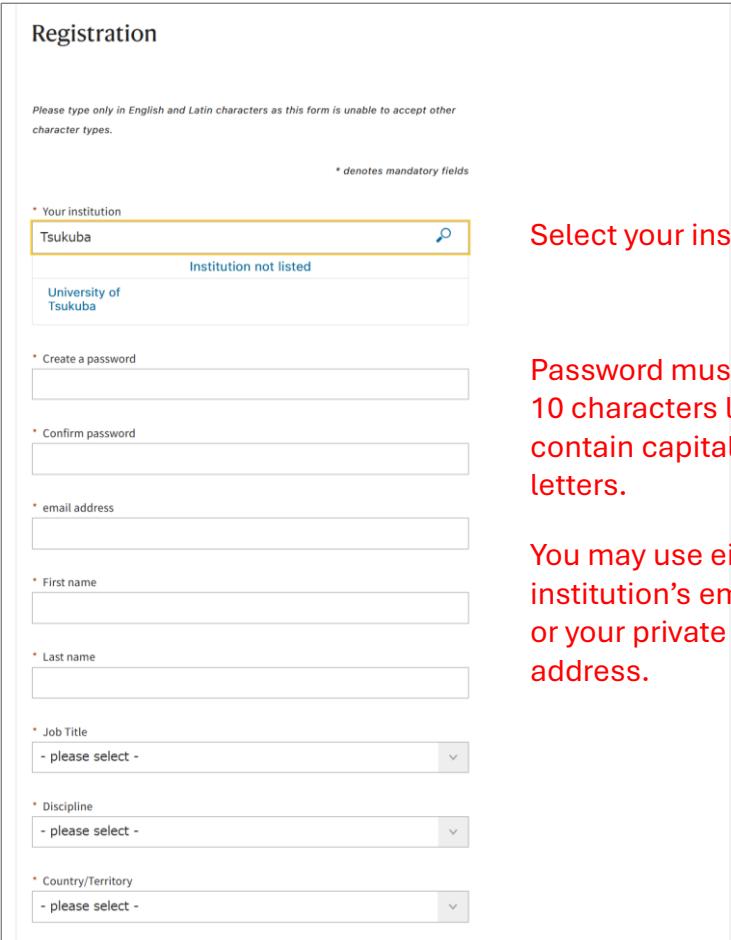
- please select -

\* Discipline

- please select -

\* Country/Territory

- please select -



Select your institution.

Password must be at least 10 characters long and contain capital and small letters.

You may use either your institution's email address or your private email address.

# How to register

7. Read and accept “Privacy Policy” and “Terms and Conditions”
8. Check you are not a robot
9. Click the “Register” button

Already registered? [Login here](#)

By clicking 'register' below, I agree that *Nature Masterclasses* (Springer Nature Ltd) can use my information to communicate with me about the online training courses I undertake. Personal information will be processed in line with the Springer Nature Ltd [privacy policy](#).

\* I accept the Terms and Conditions and confirm that I have read the Privacy Policy

[Privacy Policy](#) | [Terms and Conditions](#)

Sign up for Nature Masterclasses Researcher News

Sign up for these occasional emails containing useful content and/or information about tools for researchers from Springer Nature.

\* I'm not a robot

 reCAPTCHA  
[Privacy](#) • [Terms](#)

We collect and use your personal data to facilitate your request. We won't contact you for anything unrelated to this request. Further information can be found in our Privacy Policy Page (see the link in the footer of this page).

**Register**

After clicking 'register', please check your inbox for an email to confirm your registration. The email sender is 'onlineservice@springernature.com'.

Need support?

If you need support with the registration process and know the access type your institution has subscribed to, please find our user guides [here](#). For further assistance, contact [our Support Team](#).

Please type only in English and Latin characters as this form is unable to accept other character types.

# How to register

## 10. Check your mailbox for a confirmation email

If you don't receive a confirmation email, click "Resend email" or check if it's in your junk/spam folder.

 **ACTION REQUIRED**  
Please check your inbox to complete your registration.

We need to make sure that the email address you provided belongs to you.

To confirm your email address you need to:

1. Find our confirmation email in your inbox.
2. Click the link in the confirmation email.

**Didn't get a confirmation email?**  
Please also check your spam, junk or "unwanted" folder.

**Didn't find our confirmation email?**  
Have the message sent to you again.  
Please note: the message will be sent to the email address you provided when registering.

I'm not a robot  reCAPTCHA  
[Privacy + Terms](#)

**Resend email**

*We collect and use your personal data to facilitate your request. We won't contact you for anything unrelated to this request. Further information can be found in our Privacy Policy Page (see the link in the footer of this page).*

**Another problem?**

**Can't access the email address you provided?**  
If you can no longer access the e-mail address that is stored in our system, please contact our [customer service](#).

**Are you stuck?**  
Please contact our customer service, we will be happy to help you.  
[Customer Service](#).

# How to register

11. Open the confirmation email from Nature Masterclasses and click “Confirm registration now”

Nature Masterclasses: Please confirm your registration

onlineservice@springernature.com  
宛先 Shoji Takahashi

2024/09/02 (月) 14:15

Dear [shoji.takahashi@nature.com](mailto:shoji.takahashi@nature.com)

Thank you for signing up with *Nature Masterclasses*.

Please click this link to confirm your registration and access our courses:  
[Confirm registration now](https://masterclasses.nature.com/register/confirmation?token=66d549ec3200004c0012f72a)

You will be automatically led back and logged in to the *Nature Masterclasses* website.

This link is valid until 30 days from the registration date.  
If the link does not work, please copy the following link into your browser:  
<https://masterclasses.nature.com/register/confirmation?token=66d549ec3200004c0012f72a>

Yours sincerely,  
The *Nature Masterclasses* Team

*Nature Masterclasses* is provided by Nature Research, part of Springer Nature

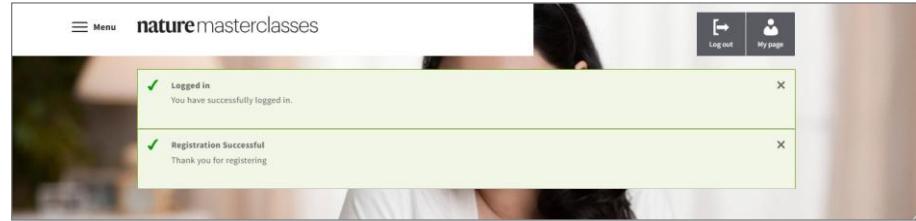
---

Nature Research  
4 Crinan Street  
London  
N1 9XW  
UK  
E: [onlineservice@springernature.com](mailto:onlineservice@springernature.com)

# How to register

12. Now you are logged in and you will be redirected to the Nature Masterclasses On-demand homepage

Your registration is complete!



before logging in

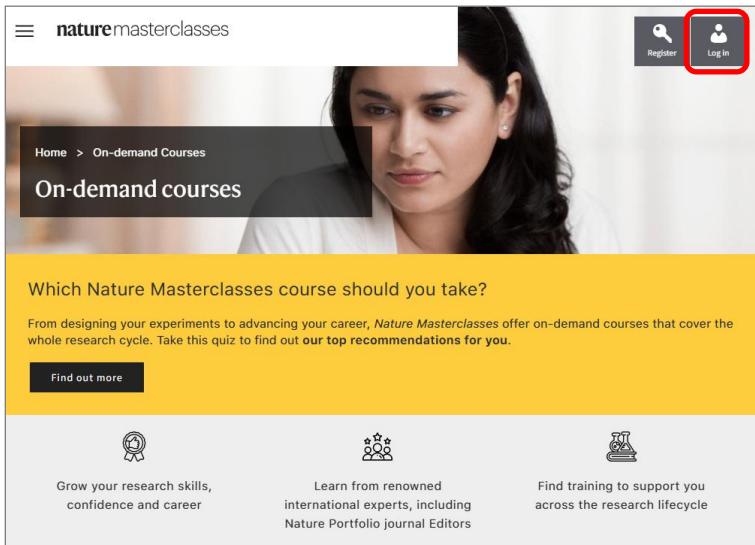


after logging in



# Logging in for future visits

1. Click “Log in” in the top right corner
2. Enter your email address and password
3. Click “Log in”



The screenshot shows the homepage of the Nature Masterclasses website. At the top right, there is a 'Log in' button with a user icon, which is highlighted with a red box. A large blue arrow points from this button to the 'Log in' page on the right.

**naturemasterclasses**

Home > On-demand Courses

On-demand courses

Which Nature Masterclasses course should you take?

From designing your experiments to advancing your career, *Nature Masterclasses* offer on-demand courses that cover the whole research cycle. Take this quiz to find out our top recommendations for you.

[Find out more](#)

 Grow your research skills, confidence and career

 Learn from renowned international experts, including Nature Portfolio journal Editors

 Find training to support you across the research lifecycle

## Log in

**Regular login**  
If you have registered on this site.

[Forgot your password?](#)

Remember Me

**Log in**

**Institutional login**  
(single sign on)

If your institution provides access to Nature Masterclasses via its own login system.

[Select your institution](#)

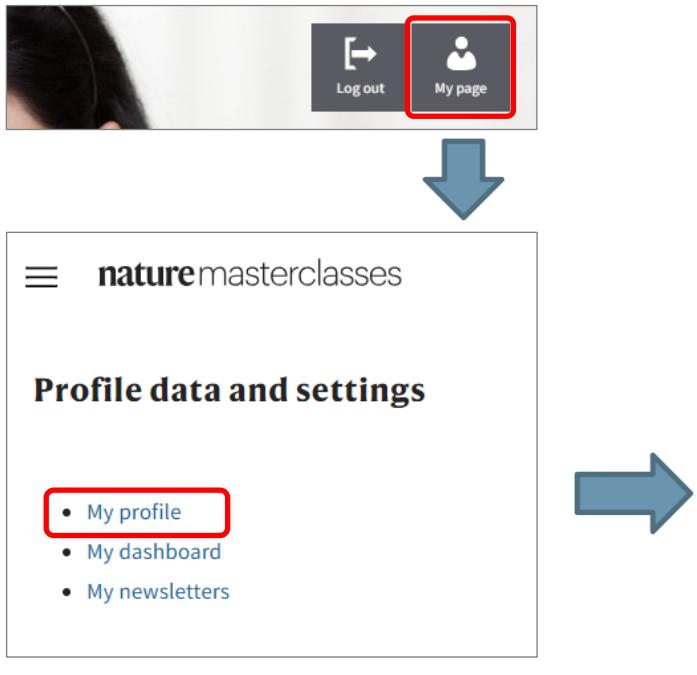
**Not registered yet?**

Better informed professionals make better decisions. The bundled expertise from all specialist areas supports you in keeping an eye on new developments in your field and being able to offer the best possible solutions.

[» Create new account](#)

# My profile

In My profile, you can update your email address or change your password.



The screenshot shows the 'My profile' section of the application. It is divided into several sections:

- Personal data**: Shows First name (Shojo) and Last name (Takahashi). An 'Edit' button is in the top right.
- My password**: Shows a password field with masked input. Text below says: "To change your password, please request an email. We will send an email to shoji.takahashi@nature.com. Afterwards you will be able to change your password using the contained link." An 'Edit' button is in the top right, and a 'Request email' button is at the bottom.
- My email**: Shows the email address shoji.takahashi@nature.com. An 'Edit' button is in the top right.
- Occupational data**: Shows Field of Study (Other) and Job Title (Other). An 'Edit' button is in the top right.

# 3

## How to Navigate the Platform

# Navigation on the Nature Masterclasses platform

Nature Masterclasses  
top page

Move to Nature Masterclasses  
On-demand homepage

Nature Masterclasses  
On-demand homepage  
(list of courses)

Course homepage  
(list of modules)

Module page  
(list of lessons)

# Choose a course on the Nature Masterclasses On-demand homepage

Choose a course from the featured courses section or from the courses grouped by stage of the research life cycle.

## Featured courses

### Featured courses



#### Choosing the Best Journal for Your Paper

Navigate the decisions and considerations to choose the right journal for your work



#### Publishing a Research Paper: 2nd Edition

Learn how to navigate the editorial and publishing process



#### Persuasive Grant Writing

Discover narrative tools and how you can use them to write convincing grant applications

## Courses by research life cycle stage

### Choose your course

All

Design research

Secure funding

Experiment and analyse

Write and publish

Share and disseminate

Develop your career

Work with others



#### Data Analysis: Conducting and Troubleshooting

Develop your data skills for more effective results



#### Data Analysis: Planning and Preparing

Maximise the outputs of your data and avoid time-consuming mistakes



#### Interpreting Scientific Results

Explore the best techniques for interpreting your scientific results



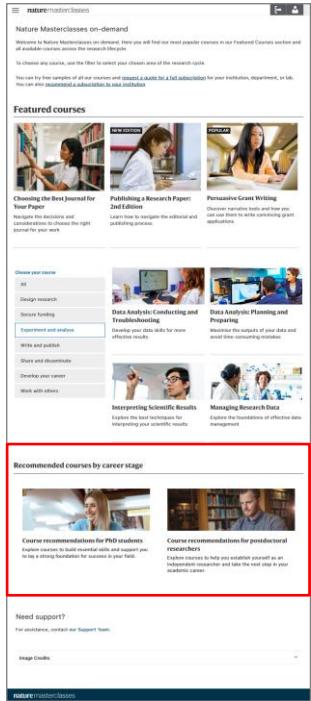
#### Managing Research Data

Explore the foundations of effective data management

Bookmark this page for future visits.  
<https://masterclasses.nature.com/catalogue>

# Choose a course on the Nature Masterclasses On-demand homepage

Choose a course from the list of recommended courses by career stage.



The screenshot shows the homepage of the Nature Masterclasses On-demand platform. At the top, there's a header with the Nature logo and a search bar. Below the header, there's a section for 'Featured courses' with several thumbnail images and titles. The main focus is the 'Recommended courses by career stage' section, which is highlighted with a red border. This section contains two course recommendations: 'Course recommendations for PhD students' and 'Course recommendations for postdoctoral researchers'. Each recommendation includes a thumbnail image, a title, and a brief description. At the bottom of the page, there's a 'Need support?' section and a 'Page Credits' section.

## Recommended courses by career stage

### Course recommendations for PhD students



#### Course recommendations for PhD students

Explore courses to build essential skills and support you to lay a strong foundation for success in your field.



#### Course recommendations for postdoctoral researchers

Explore courses to help you establish yourself as an independent researcher and take the next step in your academic career.



## For PhD students



This screenshot shows the 'Course recommendations for PhD students' page. It features a header with the Nature logo and a sub-header 'On-demand courses recommended for PhD students'. Below this, there's a section for 'Design & Secure funding' with two course thumbnails. The main content area is titled 'Experiment and analyse' and contains three course thumbnails: 'Data Analysis, Planning and Preparing', 'Data Analysis, Conducting and Troubleshooting', and 'Interpreting Scientific Results'. At the bottom, there's a 'Write and publish' section with two course thumbnails: 'Managing Research Data' and 'Publishing a Research Paper: 2nd Edition'.

## For Postdocs



This screenshot shows the 'Course recommendations for postdoctoral researchers' page. It features a header with the Nature logo and a sub-header 'On-demand courses recommended for postdoctoral researchers'. Below this, there's a section for 'Secure funding' with two course thumbnails: 'Persuasive Grants Writing' and 'Funding Guidance: Optimizing research funding opportunities that align with your career stage and funding application'. The main content area is titled 'Experiment and analyse' and contains three course thumbnails: 'Interpreting Scientific Results', 'Managing Research Data', and 'Publishing a Research Paper: 2nd Edition'. At the bottom, there's a 'Write and publish' section with two course thumbnails: 'Writing a Research Paper: 2nd Edition' and 'Writing and Publishing a Review Paper'.

# Choose a module from the Course homepage

A course consists of one or more modules. Start learning by choosing a module from the course homepage.

**The course**

**Introduction to data analysis**  
5 lessons 1h 30m  
[Retake this module](#)

**Exploring your data and reviewing your analysis plan**  
5 lessons 1h 30m  
[Start this module](#)

**Analysing your data**  
6 lessons 2h  
[Start this module](#)

**About this course**

**What you'll learn**

**The course**

**Introduction to data analysis**  
Exploring your data and reviewing your analysis plan  
Analysing your data

**Select the dropdown to explore an overview of the content for each module**

**Developed with expert academics, professionals and editors**

This course has been created with an international team of experts with extensive experience in data analysis, including:

- Data-rich fields including physics, medicine, ecology, and epidemiology
- Data science and bioinformatics
- General perspectives on current mistakes and good practice in data analysis



## Select a module

**The course**

**Introduction to data analysis**  
5 lessons 1h 30m  
[Retake this module](#)

**Exploring your data and reviewing your analysis plan**  
5 lessons 1h 30m  
[Start this module](#)

**Analysing your data**  
6 lessons 2h  
[Start this module](#)

**Select the dropdown to explore an overview of the content for each module**

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- Data-rich fields including physics, medicine, ecology, and epidemiology
- Data science and bioinformatics
- General perspectives on current mistakes and good practice in data analysis

## Navigation menu

**naturemasterclasses**

**Home > On-demand Courses > Experiment & analyse**

**Data Analysis: Conducting and Troubleshooting**

# Module page (list of lessons)

A module consists of bite-sized multiple lessons.

**Lesson 3 of 5**

## Review your data analysis options and your plan

Once you have explored the characteristics of your data (such as the mean, distribution and range) numerically and visually, you can decide on the next steps for your analysis. In this lesson, you will learn how to explore the characteristics of your data and how to review your analysis plan (including the analysis, statistical methods and assumptions) and you will now have an initial idea from exploring the characteristics of your data of whether they suit your proposed analysis. This will help you to decide on the best analysis for your data. Alternatively, if you have not yet created your analysis plan, this lesson will provide you with a useful process to help with your planning.

In this lesson, we will explore factors to consider and best practices to follow when reviewing both your options for the main data analysis and your existing analysis plan.

**Reviewing your analysis options**

In addition to the descriptive statistics you've already been calculating – by exploring your data numerically and visually – the type of analysis method you choose will be determined by your answers to the following questions. Select each item to find out more.

What type of outcome are you interested in?

What type of variables do you have?

What do you want to learn about your data?

How will you test for confounders?

How many variables do you need to include?

Let's consider each of the first four questions in more detail. Beginning with what type of outcome you are interested in. Remember to bear in mind the following definitions:

Progress indicators show you the lessons you've completed

**Lesson 4 of 5**

## Review your data analysis options and your plan

80% COMPLETE

Once you have explored the characteristics of your data (such as the mean, distribution and range) numerically and visually, you can decide on the next steps for your analysis. In this lesson, you will learn how to explore the characteristics of your data and how to review your analysis plan (including the analysis, statistical methods and assumptions) and you will now have an initial idea from exploring the characteristics of your data of whether they suit your proposed analysis. This will help you to decide on the best analysis for your data. Alternatively, if you have not yet created your analysis plan, this lesson will provide you with a useful process to help with your planning.

In this lesson, we will explore factors to consider and best practices to follow when reviewing both your options for the main data analysis and your existing analysis plan.

# Captions and transcripts on videos

All our course videos have English closed captions and transcripts.

English captions



English transcripts

A screenshot of a video player interface. At the top, there is a video frame showing a person in a red and white plaid shirt. Below the video frame, there is a timestamp '1:56' and a series of icons. A red box highlights the 'Video transcript' button. The transcript text is as follows:

What are the benefits of exploring your data visually?  
Alex Dexter, Higher Research Scientist, National Physical Laboratory, UK

The benefits of using visual tools to explore your data are you can very quickly see trends and patterns within your data to be able to determine what the best statistical methods you might want to use. And in our field, in mass spectrometry imaging, we deal with very high-dimensional data, so there's no way you can visualise all of your data in one go anyway, so these are really vital to get initial visualisations of what your data might look like before you

# Portfolio activity/document

At the end of each lesson, portfolio activity and document are provided to give you an opportunity to apply the techniques and strategies you've learned to your research.

**nature masterclasses** » Back

 Exploring your data and reviewing your analysis plan  
80% COMPLETE

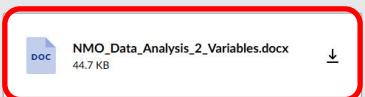
**Portfolio activity**

Note down your research question and pick the variables you need to answer it, then reflect on the following questions.

- What types of variables are they?
- What kind of visualisations could you use to explore relationships between them?
- Is there a response variable?
- Are there confounding variables?
- How does each variable contribute to the analysis?

Add the answers to these questions to your data analysis plan (if you are creating one) as you work through the course. If you are amending an existing plan, be sure to follow the best practices outlined in this lesson, and document any changes.

To record your thoughts, you can use the individual downloadable document that accompanies this activity or the collated portfolio document you might have downloaded in the "Introduction" lesson.

 NMO\_Data\_Analysis\_2\_Variables.docx 44.7 KB

**nature masterclasses**

**Data analysis: Conducting and troubleshooting**  
Module: Exploring your data and reviewing your analysis plan  
Lesson: Review your data analysis options and your plan

**Portfolio activity**

Note down your research question and pick the variables you need to answer it, then note your response to each of the following questions.

What types of variables are they? <input type="text"/>	<input type="text"/>
What kind of visualisations could you use to explore relationships between them? <input type="text"/>	<input type="text"/>
Is there a response variable? <input type="text"/>	<input type="text"/>
Are there confounding variables? <input type="text"/>	<input type="text"/>
How does each variable contribute to the analysis? <input type="text"/>	<input type="text"/>

Add the answers to these questions to your data analysis plan (if you are creating one) as you work through the course. If you are amending an existing plan, be sure to follow the best practices outlined in this lesson, and document any changes.

1/1 Nature Masterclasses: Data analysis: Conducting and troubleshooting ©Springer Nature 2024

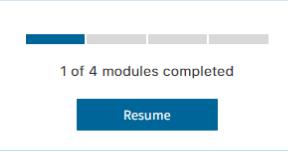
# Track your progress

Your course progress is visible on the course homepage. Once you complete the course, your certificate is ready to download.

## About this course

'Advancing Your Scientific Presentations' teaches you how to create more memorable and engaging presentations to your scientific peers. In the course, you will discover how you can develop your research story - the foundation of your presentation - using narrative tools, how to build a slide deck that supports and enhances your presentation, and how to prepare to deliver your presentation on the day.

## Your progress



1 of 4 modules completed

[Resume](#)

## About this course

Being easily found and contacted online by different stakeholders such as journal editors, industry professionals, journalists and fellow researchers is crucial in fostering collaborations and advancing your career.

This microlearning course aims to equip you with the essential skills to build and optimise your online researcher profile(s).

You will learn how to choose the right websites and platforms to

## Your progress



All modules completed

**Course finished**

[Download course certificate](#)

[Select another course](#)

**nature**  
masterclasses

18 September 2024

Certificate of Course Completion

This is to certify that  
**Shoji Takahashi**  
has successfully completed  
**Building a strong online researcher profile**

A *Nature Masterclasses* online course



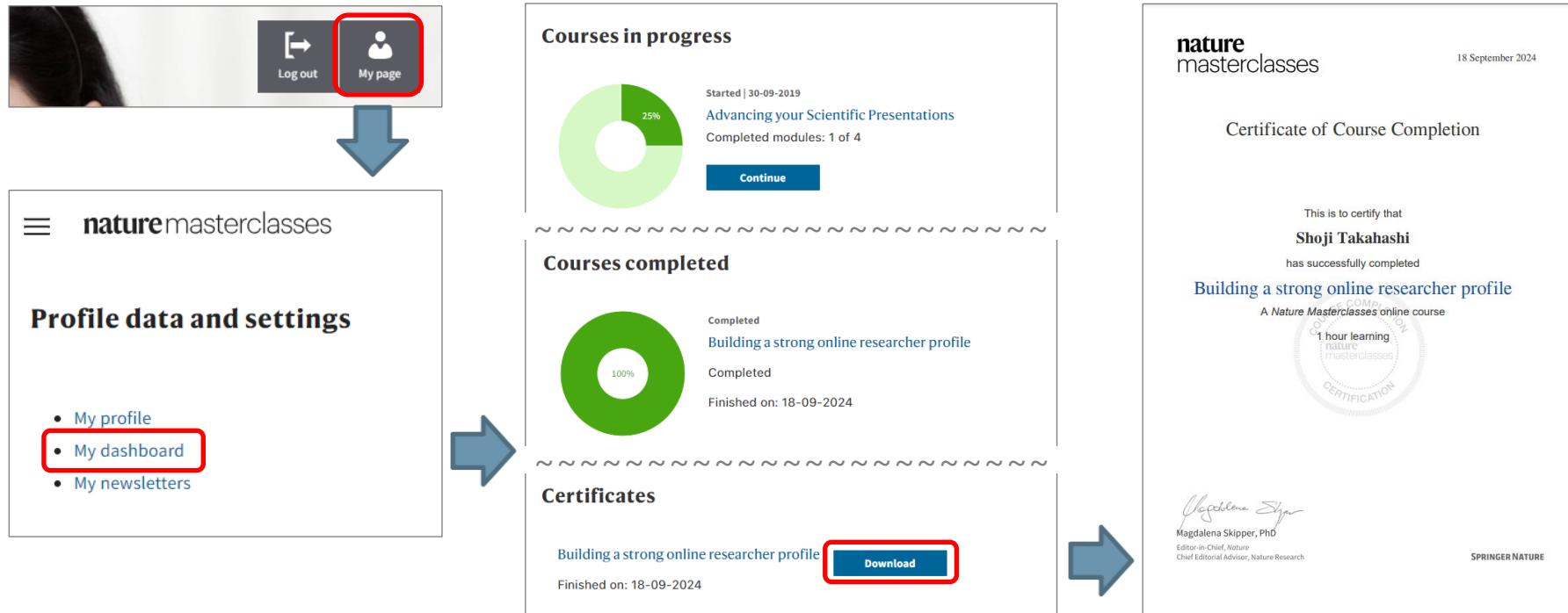
1 hour learning  
nature  
masterclasses  
CERTIFICATION

  
Magdalena Skipper, PhD  
Editor-in-Chief, *Nature*  
Chief Editorial Advisor, *Nature Research*

SPRINGERNATURE

# View your dashboard

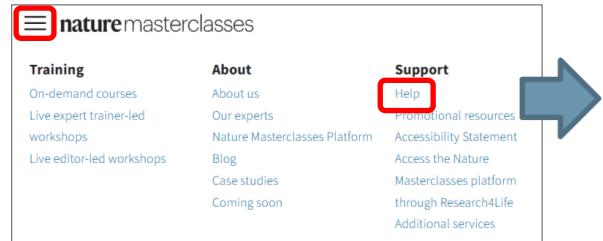
You can look at the progress of all courses and download certificates of completed courses in My Dashboard.



# Help and FAQ

If you encounter technical issues, please first refer to the FAQ page.  
 If the issue is not resolved, contact our Support Team via support form.

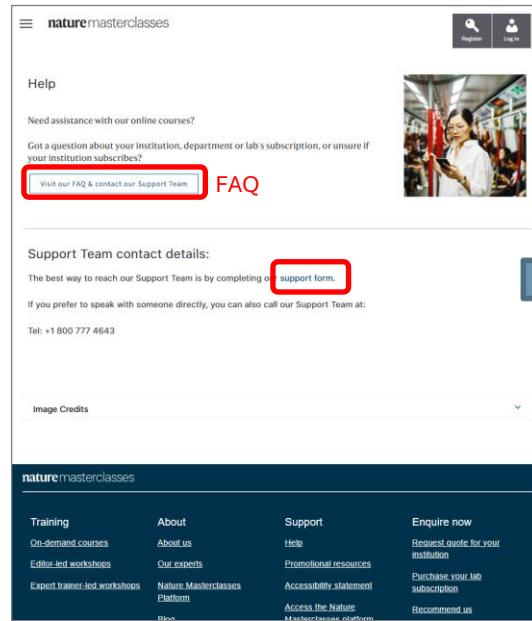
Select “Help” from the menu.



**nature masterclasses**

- Training**
  - On-demand courses
  - Live expert trainer-led workshops
  - Live editor-led workshops
- About**
  - About us
  - Our experts
  - Nature Masterclasses Platform
- Support**
  - Help** (highlighted with a red box)
  - Promotional resources
  - Accessibility Statement
  - Access the Nature Masterclasses platform through Research4Life
  - Additional services

Help



**nature masterclasses**

## Help

Need assistance with our online courses?

Got a question about your institution, department or lab's subscription, or unsure if your institution subscribes?

[Visit our FAQ & contact our Support Team](#) **FAQ**

**Support Team contact details:**

The best way to reach our Support Team is by completing our [support form](#). (highlighted with a red box)

If you prefer to speak with someone directly, you can also call our Support Team at:

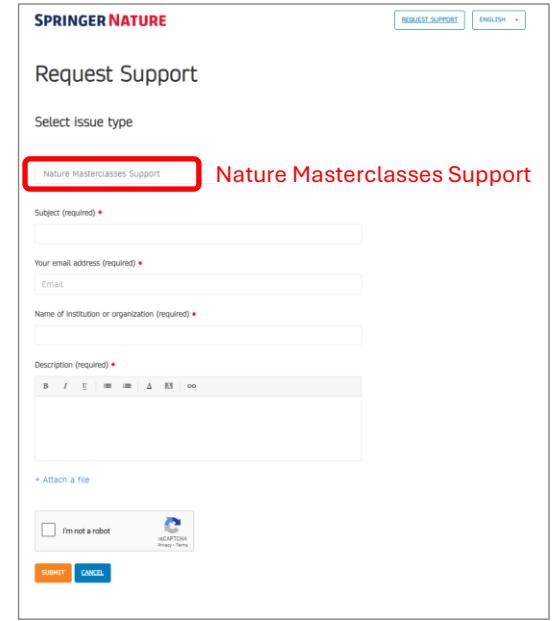
Tel: +1 800 777 4643

**Image Credits**

**nature masterclasses**

- Training**
  - On-demand courses
  - About us
  - Our experts
  - Nature Masterclasses Platform
- About**
  - About us
  - Our experts
  - Nature Masterclasses Platform
- Support**
  - Help (highlighted with a red box)
  - Promotional resources
  - Accessibility statement
  - Access the Nature Masterclasses platform
  - Recommend us
- Enquire now**
  - Request quote for your institution
  - Purchase your lab subscription
  - Recommend us

Support Form



**SPRINGER NATURE**

### Request Support

Select issue type

**Nature Masterclasses Support** (highlighted with a red box) **Nature Masterclasses Support**

Subject (required) \*

Your email address (required) \*

Email

Name of Institution or organization (required) \*

Description (required) \*

**Attach a file**

I'm not a robot 

**SUBMIT** **CANCEL**

# 4

## Appendix: Available Courses

# Available courses

## Number of modules and learning time

	Course	Number of modules	Learning time
<b>Design Research</b>	Experiments: From Idea to Design	4	8.5
<b>Secure Funding</b>	Persuasive Grant Writing	3	7.5
	Finding Funding Opportunities	1	3.5
<b>Experiment and Analyse</b>	Data Analysis: Planning and Preparing	2	4.0
	Data Analysis: Conducting and Troubleshooting	3	5.0
	Interpreting Scientific Results	1	3.5
	Managing Research Data	4	10.0
<b>Write and Publish</b>	Choosing the Best Journal for Your Paper	3	4.0
	Writing a Research Paper: 2nd Edition	5	14.5
	Publishing a Research Paper: 2nd Edition	3	6.0
	Writing and Publishing a Review Paper: 2nd Edition	17*	4.0
	Focus on Peer Review	4	3.5
	Research Integrity: Publication Ethics	3	8.0
<b>Share and Disseminate</b>	Advancing Your Scientific Presentations	4	10.0
	Creating Successful Research Posters	1	4.5
	Effective Science Communication	1	6.5
	Maximising the Impact of your Paper	8*	1.5
	Narrative Tools for Researchers	3	8.5
<b>Develop your Career</b>	Building a Strong Online Researcher Profile	5*	1.0
	Getting an Academic Research Position	4	9.5
<b>Work with Others</b>	Networking for Researchers	4	8.0
	Introduction to Collaboration	1	2.5
	Participating in a Collaboration	1	5.0
	Leading a Collaboration	3	11.5

\* Short lessons (Microlearning courses)

# Available courses

## Recommended courses by career stage

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



# Experiments: From Idea to Design

Enhance your skills in developing, planning, and refining impactful experiments

PhD students	Postdocs
✓	

## About this course

This course equips you with the right tools to help develop, plan and refine robust, impactful experiments. You will cover all the core concepts of experimental design and discover strategies to complete the full process of developing a research motivation, formulating hypotheses, assembling an experimental plan and utilising it.

## Course details

- For researchers in the natural sciences who want to develop their experimental design skills
- 9 experts in experimental design including experienced researchers and Nature Portfolio Journal Editors
- 8.5 hours of learning, 10-30-minute bite-sized lessons, 4-module course with certificate

## Modules

- Foundations of experimental design (1h 30m)
- Developing your motivation, assumptions, and hypotheses (2h)
- Assembling your experimental plan (3h)
- Utilising your experimental design (2h)

Design  
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and AnalyseWrite and  
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Others

# Persuasive Grant Writing Popular!

Discover narrative tools and how you can use them to write convincing grant applications

PhD students	Postdocs
✓	✓

## About this course

This course explains how to use narrative tools to create grant applications that resonate with the audience - your chosen funder. In the course, you will discover how narrative tools can improve the quality of your grant applications, how understanding your funder will help you align your research question with their objectives and how to apply narrative tools across your grant applications to make them more informative and persuasive.

## Course details

- For researchers in the natural sciences who want to use narrative tools to improve the quality of their grant applications to make them more informative and persuasive
- 9 experts in grant writing, including researchers, programme officers from funding bodies, and the Chief Editor of the *Nature Research Editing Service*
- 7.5 hours of learning, 15-minute bite-sized lessons, 3-module course with certificate

## Modules

- Before starting your grant application (2h)
- Targeting your audience (2h)
- Creating a narrative (3h 30m)



# Finding Funding Opportunities

Explore the funding landscape to identify the best funding opportunities for you

PhD students	Postdocs
	✓

## About this course

This course provides researchers with the skills needed to identify their professional and personal circumstances as well as research needs, and to find and prioritise funding opportunities that best fit their requirements and expertise.

## Course details

- For researchers in the natural sciences who want to find and prioritise funding opportunities to fit their needs or mentor others through the process
- 5 experts in obtaining research funding, including a former programme director at a major funder, experienced researchers, and a research management consultant
- 3.5 hours of learning, 10-30-minute bite-sized lessons, 1-module course with certificate

## Module

- Finding Funding Opportunities (3.5h)



# Data Analysis: Planning and Preparing

Maximise the outputs of your data and avoid time-consuming mistakes

PhD students	Postdocs
✓	

## About the course

This course introduces the essential elements of robust data analysis during a research project. In this course, you will discover how planning and preparing for data analysis will avoid time-consuming and costly mistakes, benefitting your immediate research and ultimately your reputation and career.

## Course details

- For researchers in the natural sciences who want to develop their data analysis skills or mentor others through the process
- 10 experts in data analysis, including experienced statisticians and data scientists, *Nature Portfolio* journal Editors and early career researchers
- 4 hours of learning, 15-minute bite-sized lessons, 2-module course with certificate

## Modules

- Introduction to data analysis and the importance of planning (2h)
- Preparing your data for analysis (2h)



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# Data Analysis: Conducting and Troubleshooting

Develop your data skills for more effective results

PhD students	Postdocs
✓	

## About this course

This course introduces the key concepts, processes and methodologies of effective data analysis during research projects. In this course, you will discover how conducting effective data analysis will benefit your research and career, and learn how to implement best practices in order to maximise the outputs of your research.

## Course details

- For researchers in the natural sciences who want to develop their data analysis skills or mentor others through the process
- 10 experts in data analysis, including experienced statisticians and data scientists, *Nature Portfolio* journal Editors and early career researchers
- 5 hours of learning, 15-minute bite-sized lessons, 3-module course with certificate

## Modules

- Introduction to data analysis (1h 30m)
- Exploring your data and reviewing your analysis plan (1h 30m)
- Analyzing your data (2h)



# Interpreting Scientific Results

Explore the best techniques for interpreting your scientific results

PhD students	Postdocs
✓	✓

## About this course

This course is aimed at all researchers in the natural sciences who want to develop their skills in adequately interpreting results. It provides the knowledge, life-long practical skills and confidence required to address their scientific question, contextualise their findings to understand the bigger picture, as well as what they bring to their scientific field, and write an interpretation with a focus on their key message.

## Course details

- For researchers in the natural sciences who want to interpret their scientific findings with more confidence, or mentor others through the process
- 5 experts in interpreting results, including a *Nature Portfolio* journal Editor and experienced researchers, statisticians and data scientists
- 3.5 hours of learning, 10-20-minute bite-sized lessons, 1 module course with certificate

## Module

- Interpreting scientific results (3h 30m)



# Managing Research Data

Explore the foundations of effective data management

PhD students	Postdocs
✓	

## About this course

This course covers the key elements of effective data management during research projects. In this course you will discover how good data management will benefit your research and career, and learn how to implement best practices in research data management in order to maximise the outputs of your research.

## Course details

- For researchers in the natural sciences who want to develop their data management skills or mentor others through the process
- 10 experts in data management, including researchers, funders, data publishing and institutional data management specialists
- 10 hours of learning, 15-minute bite-sized lessons. 4-module course with certificate

## Modules

- Welcome and Introduction (2h)
- Creating and maintaining your data management plan (DMP) (1h 30m)
- Managing data in the short and long term (3h 30m)
- Sharing your data (3h)

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# Choosing the Best Journal for Your Paper

Navigate the decisions and considerations to choose the right journal for your work

PhD students	Postdocs
✓	

## About this course

With thousands of journals available and some disreputable ones to avoid, selecting the best one to showcase your hard-earned results can be challenging but crucial. But what does ‘best’ mean? Readership, quality, prestige, and publication cost are key factors. It’s also important not to overlook factors like article access and editorial services. In this course, you will learn a step-by-step process for choosing the most appropriate scholarly journals to target for your paper, and how to prioritise which journal to submit your paper to first.

## Course details

- For researchers in the natural sciences who want to identify the best journal for their research
- 12 researchers and experts in journal selection and academic publishing
- 4 hours of learning, 5-20-minute lessons, 3-module course with certificate

## Modules

- Preparing to publish in a journal (30m)
- How to choose a journal (3h)
- Key takeaways and knowledge check (30m)



# Writing a Research Paper: 2nd Edition **Popular!**

Learn the detailed processes of writing a research paper

PhD students	Postdocs
✓	✓

## About this course

Writing research papers allows you to contribute to the scientific record, and is critical for advancing your career. To ensure that the findings you have invested so much effort in have an impact on your scientific community, it is pivotal that the paper you write is effective. This course will introduce you to powerful narrative tools and principles of scientific writing to help you write effective research papers.

## Course details

- For researchers in the natural sciences looking to write effective research papers
- With insights from 12 experts in scientific writing, including *Nature Portfolio* Editors
- 14.5 hours of learning, 10-50-minute lessons, 5-module course with certificate

## Modules

- Understanding the elements of an effective research paper (2h)
- Applying narrative tools to your research paper (3h)
- Using the principles of scientific writing style for your research paper (2h)
- Writing your research paper section by section (5h 30m)
- Finalising your research paper for submission (2h)



# Publishing a Research Paper: 2nd Edition **Popular!**

Learn how to navigate the editorial and publishing process

PhD students	Postdocs
✓	✓

## About this course

Publishing a scientific paper is an essential stage in the research process. Whether you are new to academic publishing or seeking to improve your publication success, this course offers a comprehensive overview of how to navigate the editorial process, including submissions, peer review and revisions.

## Course details

- For researchers in the natural sciences seeking to improve their chances of successfully publishing research papers
- 12 experts in scientific publishing, including *Nature Portfolio* Editors and prominent researchers
- 6 hours of learning, 10-30-minute lessons, 2-module course with certificate

## Modules

- Submitting your paper (2h 30m)
- From submission to publication (3h 30m)



# Writing and Publishing a Review Paper: 2nd Edition

Prepare yourself to write a great review paper

PhD students	Postdocs
	✓

## About this course

Review papers are critical for advancing scientific knowledge. They bring together recent literature and provide critical analysis on specific topics, helping researchers explore future directions and challenges in the field. In this course, you will learn approaches, techniques and skills important for writing a strong review paper as you are guided through the writing and publishing process.

## Course details

- For researchers in the natural sciences looking to build or refine their review writing skills
- With insights from seven experts in reviews, including four *Nature Portfolio* Chief Editors
- 4 hours of learning, 5-25-minute lessons, 17-lesson course with certificate

## Lessons

- What are review papers? (16m)
- Why publish a review paper? (10m)
- What makes a great review paper? (11m)
- Editors' favourite review papers (3m)
- Build the foundation (17m)
- The outline (12m)
- Plan the written content of your review (20m)
- Select your primary literature (24m)
- Identify your display items (21m)
- Choose your journal (5m)
- Write a compelling cover letter (12m)
- Mechanics of Writing a review (20m)
- Write your review (16m)
- Prepare for submission (20m)
- Publish your review (10m)
- Frequently asked questions (8m)
- Key takeaways (10m)



# Focus on Peer Review

Explore the role of a peer reviewer and the foundations of a good peer review

PhD students	Postdocs
	✓

## About this course

This course teaches researchers the foundations of good peer review.

## Course details

- For researchers in the natural sciences who are new to peer review or wish to refresh their skills
- 11 Nature Portfolio journal Editors and 2 active researchers
- 3.5 hours of learning, 10-minute bite-sized lessons, 4-module course with certificate

## Modules

- Your role as a peer reviewer (40m)
- The peer review report (1h 10m)
- Ethics in peer review (50m)
- Variations and innovations in peer review (50m)



# Research Integrity: Publication Ethics

Examine the ways you can handle ethical issues that can arise as you publish your research

PhD students	Postdocs
✓	✓

## About this course

This course assists researchers to master the essential steps for publishing work with the highest standards of integrity. By providing practical strategies to implement editorial policies the course serves as a toolbox, enabling researchers to navigate the whole writing and publishing process. This course supports researchers in publishing with integrity, allowing them to confidently contribute to the scientific record.

## Course details

- For researchers in the natural sciences who want to improve their understanding of how to publish research ethically and with integrity
- 7 experts in publication ethics, including a Nature Portfolio journal Chief Editor, Caltech's Chief Research Policy Officer and an elected member of the Committee on Publication Ethics (COPE) Council
- 8 hours of learning, 10-40-minute lessons, 3-module course with a course certificate

## Modules

- Preparing to publish with integrity (1h 30m)
- Publication ethics during manuscript preparation (4h 45m)
- Publication ethics after submission (1h 45m)



# Advancing Your Scientific Presentations **Popular!**

Communicate your results in an engaging and memorable way

PhD students	Postdocs
	✓

## About the course

This course teaches you how to create more memorable and engaging presentations to your scientific peers. In the course, you will discover how you can develop your research story - the foundation of your presentation - using narrative tools, how to build a slide deck that supports and enhances your presentation, and how to prepare to deliver your presentation on the day.

## Course details

- For researchers in the natural sciences who want to improve the quality of their peer-to-peer scientific presentations with both virtual and face-to-face audiences
- 10 experts who excel at presenting their work, including renowned presentation designers, and trainers and experts in narrative tools
- 10 hours of learning, 15-minute lessons, 4-module course with course certificate

## Modules

- Overcoming your research presentation challenges (2h)
- Developing the story behind your talk (2h 30m)
- Building an engaging slide deck (2h 30m)
- Preparing and navigating your talk (3h)



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# Creating Successful Research Posters **Popular!**

Create engaging and attractive posters to boost your chances of success

PhD students	Postdocs
✓	

## About this course

In today's fast-paced world of research, effective communication is key. An engaging research poster is a great way to visually share your findings concisely and broaden your professional network with other researchers. Learn how to craft great engaging research posters and prepare a handout and conversation that will captivate your audience. Whether you're a student presenting your first poster at a conference or an early career researcher seeking feedback and collaborations, this course will provide you with the knowledge, skills, and confidence and improve your chances of success.

## Course details

- For researchers in the natural sciences who would like to learn how to create and present an effective research poster
- 5 experts in science communication and research poster design and presentation
- 4.5 hours of learning, 10–35-minute lessons, 1-module course with certificate

## Module

- Creating Successful Research Posters (4h 30m)



# Effective Science Communication

Learn to communicate your findings in an engaging and impactful way

PhD students	Postdocs
	✓

## About this course

Knowing how to effectively communicate research with non-experts requires a certain skillset that can be learned and developed with practice. This course will provide researchers with the core tools and techniques to help them communicate any piece of research, published or unpublished, to a variety of different audiences. It covers the essential steps, including identifying communication goals, understanding different audiences, and crafting a key message. The course also explores the different communication methods and channels available.

## Course details

- For researchers in the natural sciences who would like to communicate their research to a broader audience
- 8 experts in science communication, science writing and editing, science outreach, engagement and presentations, and the Springer Nature press office
- 6.5 hours of learning, 10–30-minute lessons, 1-module course with certificate

## Module

- Effective Science Communication (6h 30m)



# Maximising the Impact of Your Paper

Effectively promote your paper and measure and track its impact

PhD students	Postdocs
	✓

## About this course

Publishing your research is a critical milestone, but it's only the beginning of your paper's journey. There are essential steps you can take to promote and share your research with the world and ensure maximal exposure. In this course, you will learn about the different types of impact that your published research can have, and we will explore strategies for promoting your paper and tracking its impact.

## Course details

- For researchers in the natural sciences seeking to promote and track the impact of their papers
- 8 researchers and experts in promoting papers and measuring impact
- 1.5 hours of learning, 5-15-minute lessons, 8-lesson course with certificate

## Lessons

- Welcome to this course (5m)
- What is research impact? (10m)
- How to promote your paper (12m)
- Engage with the media (10m)
- Measure your paper's reach and impact (13m)
- Article-level metrics (15m)
- Frequently asked questions (12m)
- Key takeaways and knowledge check (8m)



# Narrative Tools for Researchers

Examine the best ways you can share your research story persuasively with your peers

PhD students	Postdocs
	✓

## About this course

This course explains how to use narrative techniques to help you communicate your research to the scientific community in an effective, compelling and memorable way.

## Course details

- For researchers in the natural sciences who want to enhance their communication to their peers by using narrative tools to tell their research story
- 10 experts in using narrative techniques in scientific communication, including researchers, Nature Portfolio journal Editors and science journalists
- 8.5 hours of learning, 15-minute bite-sized lessons, 3-module course with certificate

## Modules

- Why use a story? (2h)
- Building your story (4h)
- Refining your story (2h 30m)

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and AnalyseWrite and  
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Others

# Building a Strong Online Researcher Profile

Learn to create a researcher profile that will elevate your online visibility

PhD students	Postdocs
✓	

## About this course

Being easily found and contacted online by different stakeholders such as journal editors, industry professionals, journalists and fellow researchers is crucial in fostering collaborations and advancing your career. This microlearning course aims to equip learners with the essential skills to build and optimise their online researcher profile(s).

## Course details

- For researchers in the natural sciences who would like to boost their online visibility and advance their career
- This course was developed in collaboration with 5 experts including journal editors, researchers, journalists and recruiters
- Microlearning format, 1 hour of learning, 5 bite-sized lessons with certificate

## Lessons

- What is an online researcher profile? (10m)
- Who might be searching for you online? (10m)
- Where can you build your online researcher profile? (15m)
- Which websites or platforms should you use? (15m)
- How can you make your researcher profile(s) stand out? (10m)



# Getting an Academic Research Position

Prepare yourself to take your next career step, into either a postdoc or faculty role

PhD students	Postdocs
✓	✓

## About this course

This course will show researchers how to get an academic research position that suits them perfectly. It will teach them the skills to find, select and apply to suitable roles, send tailored applications, and impress potential employers at the interview.

## Course details

- For researchers in the natural sciences seeking to take their next career step, either as a new postdoc or in a new faculty role
- 11 experts in research career development, including experienced academic researchers, *Nature Portfolio* journal Editors, and coaching and careers specialists
- 9.5 hours of learning, 10-30-minute bite-sized lessons, 4-module course with certificate

## Modules

- Exploring your values, interests, skills and career goals (2h)
- Finding a research position (2h)
- Applying for a research position (2h 30m)
- Excelling at the interview (2h 30m)

Design  
ResearchSecure  
FundingExperiment  
and AnalyseWrite and  
PublishShare and  
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Others

# Networking for Researchers

Create and nurture professional relationships for mutual benefit

PhD students	Postdocs
	✓

## About this course

This course covers the key elements needed to acquire or perfect effective professional networking skills for scientific researchers. In this course you will discover how building a professional network will benefit your research and career, and learn the skills to build and maintain networking connections in a variety of settings, both in-person and online.

## Course details

- For researchers in the natural sciences who want to gain confidence by improving their networking skills or mentor others through the process
- 10 experts in networking, including researchers, experienced academic networkers, fellows, networking consultants and communications specialists
- 8 hours of learning, 15-minute bite-sized lessons, 4-module course with certificate

## Modules

- Why network? (2h)
- Getting ready to network (2h)
- Connect with new networking contacts - in person and online (2h 30m)
- Nurturing and harnessing the power of your network (1h 30m)



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# Introduction to Collaboration

Gain an insight into research collaboration and its benefits

PhD students	Postdocs
✓	

## About the course

This course introduces the idea of research collaboration and how becoming a more effective collaborator could help to further both your research and your career. Even if you've already participated in collaborative research, this course provides a useful introduction to the topic of research collaboration, as well as valuable context and advice around the pros and cons of collaborative projects and how they can help you reach your goals.

## Course details

- For researchers in the natural sciences who wish to participate in collaborative projects
- 14 experts in collaboration, including researchers, funders, editors and professionals
- 2.5 hours of learning, 15-minute bite-sized lessons, 1-module course with certificate

## Module

- Introduction to collaboration (2h 30m)



# Participating in a Collaboration

Build your skills to make a more meaningful contribution to your collaborative projects

PhD students	Postdocs
	✓

## About the course

This course focuses on how to ensure you make a meaningful contribution when you join a collaborative project. The course will help to equip you with the knowledge and skills you need to become an effective and valuable member of the team. This course is particularly suited to researchers who have little or no experience in working collaboratively.

## Course details

- For researchers in the natural sciences who wish to participate in collaborative projects
- 16 experts in collaboration, including researchers, funders, editors and professionals
- 5 hours of learning, 15-minute bite-sized lessons, 1-module course with certificate

## Module

- Participating in a Collaboration (5h)



# Leading a Collaboration

Prepare yourself for all aspects of leading on a collaborative project

PhD students	Postdocs
	✓

## About the course

If you already have collaborative experience and are ready to initiate your own research collaboration, ‘Leading a Collaboration’ covers all aspects of setting up, leading, managing and closing down your own collaborative research project.

## Course details

- For researchers in the natural sciences who wish to lead collaborative projects
- 16 experts in collaboration, including researchers, funders, editors and professionals
- 11.5 hours of learning, 15-minute bite-sized lessons, 3-module course with certificate

## Modules

- Initiating and leading a collaboration (5h)
- Running and troubleshooting a collaboration (2h 30m)
- Outputs and next steps (4h)