

Nature Masterclasses Online ユーザーガイド



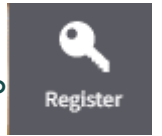
User Guide
for Nature Masterclasses Online



利用方法 How to Use

STEP1 : <https://masterclasses.nature.com/> にアクセスし、Registerアイコンをクリックします。

Please go to <https://masterclasses.nature.com/> and select the Register icon on the top right.



STEP2 : メールアドレスとパスワードを設定し、Registerボタンをクリックします。

Enter your institutional email, set a password, and click 'Register'.

* email address

メールアドレスは必ず@g.ecc.u-tokyo.ac.jpドメインのものを入力してください。
Please make sure you register with "@g.ecc.u-tokyo.ac.jp" domain.

* password

パスワードは本オンラインコース用に新たに設定してください。
Set a new password for this online course.

STEP3 : メール受信箱をご確認ください。

onlineservice@springernature.com からのメールを開き、**Confirm registration now** をクリックします。
Nature Masterclasses のweb サイトが開き、これで登録は完了です。

A message will prompt you to check your email inbox. You should have an email from Online Services. Please click on the confirmation link in the email. Once you have clicked "Confirm registration now", you will be re-directed to the Nature Masterclasses site. That's your registration done.

STEP4 : 左上MENUからアクセスしたいコースをクリックします。

You can now navigate to the course. Select the 'Menu' button in the top left corner of the Nature Masterclasses page and then click on the course name.

初回はユーザー情報の登録（分野など）が求められます。

Finally, you'll just be asked to enter a few basic details in order to complete your profile the first time you visit the course. Once this is done, you'll be taken straight to the course on all future visits to the site.



データ解析と
研究成果の発信を
中心とした
10のコースがあります
10 courses

動画視聴 (英語字幕付き)
+ クイズ

Videos with English caption

自然科学分野が
主な対象

Mainly for researchers in the natural
sciences

nature
masterclasses

Online Courses

- ① Scientific Writing and Publishing
- ② Effective Collaboration in Research
- ③ Focus on Peer Review
- ④ Managing Research Data to Unlock its Full Potential
- ⑤ Narrative Tools for Researchers
- ⑥ Persuasive Grant Writing
- ⑦ Networking for Researchers
- ⑧ Advancing Your Scientific Presentations
- ⑨ Data Analysis: Planning and Preparing
- ⑩ Data Analysis: Conducting and Troubleshooting



1 コマは10~20分!
目的に応じて
必要なところだけ
受講いただけます

Courses contain bite-size
lessons (10-20min), allowing
you to select what you want to
learn

論文の執筆・投稿を学びたい方に…

① Scientific Writing and Publishing

【コース内容】 Part 1: Writing a research paper

How to write clearly, write a great title and abstract, and structure your paper — as well as how to manage and present your data

「必要なところだけ受講する」コース設計です。
論文を書き始めたら“From introduction to conclusion”の
“Writing the xx section”だけ見てみるなど、ご活用ください。

Module	Detail
What makes a great paper? 合計：50分	Why publish your research? / Starting to write and using / Storytelling to craft your paper / What do editors look for in a great paper? / There is no magic formula to writing a great paper / Editors' favorite papers / Frequently asked questions / Module summary
Elements of writing style 合計：25分	The ABC of effective writing / Common issues in writing style / Knowledge check: Effective writing / Building a paragraph / Frequently asked questions / Module summary
Titles and abstracts 合計：40分	How to reach your audience / The value in crafting a great title / How to write effective titles / Things to avoid in titles / Knowledge check: Identify an effective title (life sciences example) / Knowledge check: Identify an effective title (physical sciences example) / Choosing keywords for your paper / How to write an abstract / Things to avoid in abstracts / Knowledge check: Improve an abstract / Module summary
From introduction to conclusion 合計：40分	Writing a paper: The big picture / Writing the introduction / Writing the methods section / Writing the results section / Data deposition / Writing the discussion section / Writing the combined results and discussion section / Writing the conclusion / Things to avoid: Overhyping your work / Knowledge check: Write a paragraph! / Frequently asked questions / Module summary
Data management 合計：50分	Managing data / Risks of data mismanagement / Creating a data management plan / The importance of sharing data / Meaningful metadata / Sharing data / Poll: How do you access and share data? / The rise of data journals / Knowledge check: Data ownership / Frequently asked questions / Module summary
Data presentation 合計：55分	Principles of data presentation / Determine your main message / Find the best format for your data / Knowledge check: Box plot or bar chart? / Organize your data / Choose a representative image / Visual clarity / Use color wisely / Frequently asked question / Module summary

論文の執筆・投稿を学びたい方に…

① Scientific Writing and Publishing

【コース内容】 Part 2: Publishing a research paper
How to select a journal for publication, submit your article, and navigate the editorial process — including how to write cover letters, the peer review process, and editorial decisions

Module	Detail
Authorship and authors' responsibilities 合計：40分	Principles of authorship / Author contributions / Authorship in collaborative teams and consortia / Knowledge check: Describe authorship / Knowledge check: Who should be an author? / Authorship disputes / Author identity and researcher identifiers / How to start a conversation on authorship / An editor's experience: Honorary authors / Frequently asked questions / Module summary
Selecting a journal for publication 合計：35分	Poll: Your criteria for selecting a journal / Key considerations for selecting a journal / Why and where to publish? / Publishing in open access journals / Avoiding predatory journals / Case study: Bohannon's sting / Frequently asked question / Module summary
Submitting your paper 合計：30分	Presubmission enquiries at scientific journals / Scientific cover letters / An editor's experience: The submission process / What constitutes a conflict of interest? / Knowledge check: Conflicts of interest / Knowledge check: Competing interests / Frequently asked question / Module summary
Understanding peer review 合計：1時間5分	A brief history of peer review / Types of peer review / The benefits and limitations of peer review / How editors select referees / When to accept or decline an offer to peer review / An editor's experience: Being a first-time peer reviewer / What makes a great peer review report? / How to think like a peer reviewer when you read a paper / How editors assess referee reports / Rewards for referees / Frequently asked questions / Module summary
Journal decisions 合計：1時間	Types of editorial decisions after peer review / Common reasons for rejection at scientific journals / Knowledge check: Editorial decisions / How to respond to peer review comments / Making an appeal / The dos and don'ts of appealing / What happens after acceptance at Nature Research journals? / Post-publication criticism / Module summary
The editorial process 合計：15分	Different editorial processes / The editorial process at top-tier journals / Knowledge check: What do editors look for? / Publishing a paper is a team effort / Frequently asked questions / Module summary
Measuring impact 合計：40分	An introduction to research metrics / Article-level metrics / Researcher-level metrics / Focus on the h-index / Institutional-level metrics / Knowledge check: Metrics / Module summary
Plagiarism and other ethical issues 合計：45分	Why some researchers behave unethically / Defining plagiarism and tools to detect it / Knowledge check: Using copyright-protected materials / Focus on duplicate submissions / Inappropriate citations / A case study of misconduct / Poll: Misconduct - what would you do? / Post-publication corrections / Retractions / Module summary

論文の執筆・投稿を学びたい方に…

① Scientific Writing and Publishing

【コース内容】

Part 3: Writing and publishing a review paper

What makes a great review paper, how to plan and write a review, and how to referee a review paper

Module	Detail
Writing and publishing a review paper 合計：1時間10分	<ul style="list-style-type: none">• What is a review paper?• What makes a great review?• Editors' favorite Nature Reviews papers• Dos and don'ts for a good review• Commissioned and unsolicited reviews• How to write the outline of a review paper• The structure of a review paper• Selecting the primary literature for your review paper• Refereeing review papers• The editorial process at Nature Reviews journals• Nature Reviews Disease Primers• An editor's experience: Submitting a review• Reflection: Remember an inspiring review• Frequently asked questions• Module summary

2021年度利用者の声

(2021年度はScientific Writing and Publishingコースのみ利用可能でした。)

- どのコンテンツも非常にまとまっていました。とくに題名の付け方は、なかなか教えていただく機会がなかったので、整理でき勉強になりました。
- The classes gave me tips from editors of a top-class academic journal, that I would not have been able to access otherwise. Additionally, some of the modules answered questions that I've had for a long time.

共同研究プロジェクトを始めたい方に…

② Effective Collaboration in Research

【コース内容】

Part 1: Introducing collaboration

Why collaborative research is becoming more prevalent

Part 2: Participating in a collaboration

The pros and cons of collaborating

Part 3: Leading a collaboration

How collaborative projects can help advance your research and career

Part	Module	Detail
1	Why collaborate? 合計：1時間	Welcome to the course / The rise of collaborations / Different types of collaboration / Benefits and challenges of collaboration / Working with industry / Use collaborations to reach your goals / Module summary
2	Being an effective collaborator 合計：1時間30分	Working in a new research team / Keeping the project on track / Tools to collaborate / Leveraging your collaborative experience / Troubleshooting tips for new collaborators / Module summary
	Initiating and leading a collaboration 合計：2時間	Do you need a collaboration? / How to choose your collaborators / How to approach potential collaborators / Effective leadership for collaborations / Setting up a collaboration framework / Establishing a code of conduct / Creating the project schedule / Planning your resources / Legislation, guidelines and policies / Funding for collaborations / Module summary
3	Running and troubleshooting a collaboration 合計：1時間40分	Maintaining engagement / Keeping the project on track / Interpersonal and personnel issues / Ethical issues / Funding and resources / Module summary
	Outputs and next steps 合計：1時間40分	Defining 'outputs', 'value' and 'impact' / Collaborative research outputs / Publishing your results: authorship and writing / Publishing your results: submission and review / The value of research outputs / Assessing and communicating impact / Ending a collaboration / Next steps / Module summary

査読者の心構えを学びたい方に…

③ Focus on Peer Review

【コース内容】

Module 1: Your role as peer reviewer

What it means to be a peer reviewer and what is expected of you once you accept a peer review assignment

Module 2: The peer review report

How to prepare a peer review report

Module 3: Ethics in peer review

The ethics of peer review and recognizing conflicts of interest

Module 4: Variations and innovations in peer review

The different types of peer review and initiatives

Module	Detail
Your role as a peer reviewer 合計：40分	The peer review process / The importance of peer review / The benefits of being a peer reviewer / Peer reviewer's responsibilities / The reasons why I peer review / Deciding whether to peer review a paper / Experiences of peer review / Routes to becoming a peer reviewer / Module summary and next steps / Useful links and further reading
The peer review report 合計：1時間10分	What do you think of this report? / Preparing to review / Review strategies / First impressions of the paper / How I approach peer review / The review: Titles, abstracts & introductions / The review: Methods / The review: Results and discussion / The tone of your report / The structure of your report / Major and minor points in a review paper / Writing a summary for a peer review report / Common problems during peer review / Frequently asked questions / Module summary and next steps / Useful links and further reading
Ethics in peer review 合計：50分	Which of these actions is ethically questionable? / Peer review ethics / Conflicts of interest in peer review / Intellectual theft and plagiarism in peer review / Implicit bias in peer review / Confidentiality in peer review / Why peer review gets a bad press / Knowledge check: Potential issues when peer reviewing / Module summary and next steps / Useful links and further reading
Variations and innovations in peer review 合計：50分	Types of peer review / Registered reports / Different journals' requirements / Variations in peer review practices / Knowledge check: Reviewing large data sets / Peer reviewing a review paper / Innovative approaches to peer review / Peer review: Where next? / Module summary and next steps / Useful links and further reading

データマネジメントを学びたい方に…

④ Managing Research Data to Unlock its Full Potential

【コース内容】

Module 1: Welcome and introduction

Why effective data management is beneficial to your research and your career

Module 2: Creating and maintaining your data management plans

How to create and maintain a data management plan

Module 3: Managing data in the short and long term

How to apply best practices for organizing, storing, archiving and quality checking your data

Module 4: Sharing your data

How to ensure that your data is understandable to yourself and others

Module	Detail
Welcome and introduction 合計：1時間	Welcome to the course / Key concepts / Why data management matters / Complying with relevant data policies / Module summary
Creating and maintaining your data management plan 合計：1時間	Introduction / Preparing to create a DMP / Creating a DMP / Module summary
Managing data in the short and long term 合計：1時間30分	Introduction / Storing data for the short term / Choosing file formats for data storage / Organising and naming your data files / Collecting rich and comprehensible metadata / Checking the quality of your data / Storing data for the long term / Module summary
Sharing your data 合計：1時間30分	Introduction / What to share, when and with whom? / Setting terms for access and use of your data / How to share your data / Sharing your data in a repository / Module summary / Course summary

自分の研究について伝える方法を学びたい方に…

⑤ Narrative Tools for Researchers

【コース内容】

Module 1: Why use a story?

The benefits of using a compelling story to communicate your research to your peers and stakeholders, such as funders or industry partners

Module 2: Building your story

How to build and combine different narrative elements that can help you create a more compelling scientific story

Module 3: Refining your story

How to refine your story by soliciting feedback and implementing edits

Module	Detail
Why use a story? 合計：1時間	<ul style="list-style-type: none">• Welcome to the course• Why use narrative tools to communicate your research?• How can stories advance your research and career?• Why are stories powerful?• What makes a story?• Module summary
Building your story 合計：1時間30分	<ul style="list-style-type: none">• Introduction• Identify your key message• Back up your key message• Choose a structure for your story• Build your characters• Help the audience along• Put the pieces together• Module summary
Refining your story 合計：1時間30分	<ul style="list-style-type: none">• Introduction• Understand your audience• Adapt to your audience• Plan for constraints• Edit your story• Module summary

グラントライティングを学びたい方に…

⑥ Persuasive Grant Writing

【コース内容】

Module 1: Before starting your grant application

How narrative tools can improve the overall quality of your grant application

Module 2: Targeting your audience

How to align your grant application with the requirements and objectives of its audience - your chosen funder

Module 3: Creating a narrative

Learn to apply narrative tools when writing your grant application to make it more informative and persuasive

Module	Detail
Before starting your grant application 合計：45分	<ul style="list-style-type: none">• Welcome to the course• Why are many grant applications not funded?• Why use narrative tools when writing a grant application?• The format of a grant application and the purpose of its sections• Module summary
Targeting your audience 合計：1時間	<ul style="list-style-type: none">• Introduction• Why should you understand your funder?• How to research your funder• Create a key message that is relevant to your funder• Module summary
Creating a narrative 合計：1時間30分	<ul style="list-style-type: none">• Introduction• Support your key message• Select the characters of your grant application• Create a narrative structure within your sections• Tell your research story throughout the entire application• Module summary• Course summary

研究者ネットワーキングを学びたい方に…

⑦ Networking for Researchers

【コース内容】

Module 1: Why network?

How to examine the different purposes, challenges and opportunities related to building your network

Module 2: Getting ready to work

How to prepare key resources to help you build an effective network

Module 3: Connect with new networking contacts

Strategies to approach and connect with potential network contacts, both in-person and online

Module 4: Nurturing and harnessing the power of your network

How to follow up on initial approaches and how to apply strategies to leverage your network that will advance your research or career

Module	Detail
Why network? 合計：45分	<ul style="list-style-type: none">• Welcome to the course• Networking challenges and misconceptions• Why network?• Networking opportunities• Module summary
Getting ready to network 合計：1時間	<ul style="list-style-type: none">• Introduction• Articulate your professional identity• Build your online presence• Do your research• Prepare your pitch and your questions• Module summary
Connect with new networking contacts - in person and online 合計：1時間	<ul style="list-style-type: none">• Introduction• Reaching out to a new contact• Crafting your communications for maximum effect• Meeting in person• Meeting online• Making the most of chance encounters• Module summary
Nurturing and harnessing the power of your network 合計：30分	<ul style="list-style-type: none">• Introduction• Harness the immediate power of your network• Nurture your network for the future• Module summary• Course summary

ピア向けのプレゼンテーションを学びたい方に…

⑧ Advancing Your Scientific Presentations

【コース内容】

Module 1: Overcoming your research presentation challenges

Identify techniques that can help to overcome the challenges that researchers commonly face when creating and delivering oral presentations

Module 2: Developing the story behind your talk

Build compelling research stories to use as the foundation for your presentations

Module 3: Building an engaging slide deck

Create professional slide decks that effectively communicate your research findings to your audience

Module 4: Preparing and navigating your talk

Apply strategies to help you deliver your presentation effectively on the day, in both virtual and face-to-face environments

Module	Detail
Overcoming your research presentation challenges 合計：1時間30分	Welcome to the course / Identify the benefits of giving effective presentations / Tailoring to your audience can focus your presentation / Use narratives tools to communicate your research story / Module summary
Developing the story behind your talk 合計：2時間	Introduction / Identify your key message / Select the evidence to support your key message / Identify your characters / Choose and use a narrative structure / Bring the elements of your story together / Module summary
Building an engaging slide deck 合計：2時間	Introduction / Create the outline of your slide deck / Set up your slide deck / Craft your components: Pitfalls, principles and text / Craft your components: Visual and interactive elements / Refine and review your slide deck / Module summary
Preparing and navigating your talk 合計：2時間	Introduction / Prepare the practicalities of your talk / Prepare and rehearse your talk / Prepare for Q&A

データ解析を学びたい方に…

⑨ Data Analysis: Planning and Preparing

【コース内容】

Module 1: Introduction to data analysis and the importance of planning

How to create a data analysis plan and get feedback

Module 2: Preparing your data for analysis

How to apply best practice to collate and merge the data you've collected

Module	Detail
Introduction to Data Analysis and the importance of planning 合計：1時間25分	<ul style="list-style-type: none">• Welcome to the course• Key concepts in data analysis• Why planning data is important• Challenges in data analysis• Challenges in preparing and planning your data analysis• Creating a data analysis plan• Module summary
Preparing your data for analysis 合計：1時間5分	<ul style="list-style-type: none">• Introduction• Collate your analytic dataset• Quality check your analytic dataset• Preliminary analysis: Explore your data• Module summary• Course summary

データ解析を学びたい方に…

⑩ Data Analysis: Conducting and Troubleshooting

【コース内容】

Module 1: Introduction to Data Analysis

Understand the importance of conducting effective data analysis

Module 2: Exploring Your Data and Reviewing Your Analysis Plan

Identify the range of analytic methods available and understand which is most suited to your data

Module 3: Analysing Your Data

Learn strategies for obtaining feedback, troubleshooting and expressing the limitations of your analysis

Module	Detail
Introduction to Data Analysis 合計：1時間	<ul style="list-style-type: none">• Welcome to the course• Key concepts in data analysis• Why is effective data analysis important?• Challenges in data analysis• Module summary
Exploring your data and reviewing your analysis plan 合計：2時間	<ul style="list-style-type: none">• Introduction• Explore your data numerically• Explore your data visually• Review your data analysis options and plan• Module summary
Analysing your data 合計：2時間	<ul style="list-style-type: none">• Introduction• Analyse your data and test your hypothesis• Confirm and troubleshoot analyses• Present your findings and express limitations• Module summary• Course summary