



MBIOL BIOLOGY

(C100)

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Biology is the science of the 21st century and affects all corners of our lives. Most of the challenges we currently face are biological: antibiotic resistance, pandemics, climate change, and the sixth mass extinction. By studying with us, you will learn more about the fundamental science that underpins these and other challenges, while learning transferable skills that will equip you for a whole range of careers.



Image: Kristiina Visakorpi

ABOUT BIOLOGY AT OXFORD

All students begin by registering for the MBiol, and you will have the chance to decide during Year 3 if you want to continue to the MBiol or leave with a BA. In Year 4 you will pursue an independent research project, subject to obtaining at least an upper second-class degree in the BA.

The course covers all areas of biology from molecules to ecosystems, and includes both fundamental science and its real-world applications. Taught by more than 70 staff from the Department of Biology, you will have direct access to world-class academics throughout the course. [Our staff have contributed to managing the recent COVID pandemic, helped to establish new protected areas around the world, and are working to engineer better crops to tackle food shortages.](#)

Most of our academic staff are willing to take fourth-year project students (although there are limits on the number that each can take), giving

you the opportunity to join research groups at the forefront of their field.

Oxford is the oldest university in the country, and all students belong to a college with at least one dedicated biology tutor. The college system provides care and support throughout your degree.

The course strongly emphasises research skills through lab practicals, computer programming, analysis, and the reading and discussion of scientific papers, helping students to develop skills beyond essay-writing. We offer amazing opportunities for students to hone and extend their skills through intensive courses in Year 2, which involve overseas and UK fieldwork or immersive lab practice. In recent years, these options have included residential field courses in Tanzania, Tenerife, and Northern Ireland.

WHAT QUALIFICATIONS WILL I NEED?

A-level Biology (or equivalent) is required and a second A-level (or equivalent) must be in Chemistry, Physics, or Mathematics. The general entry requirements for this course for A-level students is A*AA.

For subjects in which an A* grade is accepted, please visit the [University Biology admissions pages](#) and select the admissions requirements tab.

- **Advanced Highers:** AA/AAB
- **International Baccalaureate:** a total score of at least 39 points including core points. Biology and either Chemistry, Physics, or Mathematics are required with 7 at the Higher level in Mathematics or a science.

For other international qualifications, please visit the [University international qualifications page](#)

WILL I GET AN INTERVIEW?

Given the very strong competition for places, we are unable to interview all applicants. Interviews take place in December. You are not asked to sit a test beforehand, nor do you need to send in written work. A panel of Biology Admissions Tutors looks carefully at all applications and makes recommendations to colleges about which applicants should be interviewed, taking into account academic and contextual information provided on the UCAS applications. All applicants who are invited to interview will have two interviews, one with their first-choice or allocated college and one with a second allocated college. [See here for an example of a Biology interview.](#)



Images: Dave Wilson

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This course has extended my knowledge of the natural world beyond what I could have imagined at A-Level. There are so many opportunities to learn more in Oxford, widen my interests in biology, and develop myself both educationally and recreationally. Throughout this course you will have the opportunity to learn from leading researchers, but also hear about the diversity of career directions this subject can take you.

First year biology student

Applying is one of the best decisions I have ever made, the range of opportunities is vast and I wouldn't change it for anything!

Second year biology student

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WHAT ARE THE TUTORS LOOKING FOR?

We are looking for students from any background who we think will thrive on our course. In particular we are looking for students who:

- Share our passion for biology
- Can describe and discuss a biological topic
- Can engage in problem solving
- Can present a reasoned argument
- Demonstrate academic potential

During the interview we assess candidates against these criteria, giving them an opportunity to show their ability and potential through discussion with tutors.

Interview questions are designed to inspire applicants to think out loud, with no 'trick' questions. It's quite likely that you will be asked to think about biological problems you may not have encountered before, but it isn't about knowing the 'right' answer.

Instead, we want to see how you think and engage with the question and the tutor. Try to apply the knowledge you have from your studies and tell your interviewer what you are thinking – does this problem remind you of something similar that you do know about? Or are there some fundamental principles that you can apply?

If you have expressed an interest in a particular aspect of biology on your personal statement, then you should be prepared to talk about it in the interview. You might also be asked to discuss science that has recently been in the news or to express opinions on new scientific developments.



Image: Owen Lewis



Image: Tim Guilford

WHAT IS THE ROLE OF THE COLLEGE?

All students who come to the University of Oxford are associated with an Oxford college. There are 21 colleges that currently offer Biology. Each has its own history, ethos, and architecture, as well as providing students with accommodation, food, and a wealth of social activities. Although your lectures, practicals, field courses, and exams will be organised by the Department of Biology, the college will be responsible for organising small group teaching known as tutorials. First-year tutorials are often with your own college tutors, but in

later years, students receive tutorials from staff across the Department.

Check which colleges offer the Biology course by [visiting our website](#). You can name a college at the application stage (your "first-choice" college), but this is not essential. Due to the large numbers of applicants at certain colleges, you might be interviewed or offered a place at a different college.

HOW IS THE COURSE STRUCTURED?

BA BIOLOGY	FIRST YEAR	ORIENTATION LECTURES AND PRACTICALS COMPUTING SKILLS RESIDENTIAL FIELD COURSE	In Year 1 you receive an introduction to themes that recur through the course, along with scientific methods and essential research skills. Lectures, practicals and synthesis sessions come from three interwoven themes: • Diversity of life • Building a phenotype • Evolution and ecology
	SECOND YEAR	LECTURES AND PRACTICALS IN AT LEAST 6 MODULES COMPULSORY STATISTICS EXTENDED SKILLS TRAINING COURSE POSTER PRESENTATION	You will choose at least six modules from four different themes: 1. Cell and Developmental Biology 2. Ecology and Evolution 3. Genomics and Host-microbe Interactions 4. Organisms – Behaviour and Physiology
	THIRD YEAR	SPECIALIST MODULES: CHOOSE AT LEAST 4 FROM 8 JOURNAL CLUB ORAL PRESENTATION COMPUTING SKILLS RESEARCH PROPOSAL	You will choose at least four modules from eight. Currently these are: • Advanced Cell Biology • Advanced Ecology & Evolution • Animal Behaviour & Physiology • Biology of Infectious Disease • Ecosystems, Conservation & Sustainable Development • Evolution & Development • Genome Diversity & Evolution • Green Grand Challenges
MBIOL	FOURTH YEAR	OPTIONAL MBIOL YEAR RESEARCH PROJECT AND SPECIALIST SKILLS TRAINING	An optional 4th year if you achieve 2:1 or above in your BA. This year includes a long research project, supported by some optional advanced research skills training.

You will typically attend 8 hours of lectures per week, with additional research skills, such as lab practicals, computing, and synthesis sessions. Most of the time, you will have one tutorial per week in addition to the departmental teaching.



ADDITIONAL COURSE INFORMATION

Year 1

Year 1 begins with a four-week Orientation period, designed to help you settle into Oxford. Key goals are: learning the scientific method, discovering Oxford's unique facilities such as the Natural History Museum, the Botanic Garden, the Arboretum, the Herbarium, and Wytham Woods; and learning key research skills.

All sessions in Year 1 are compulsory. There are lectures, lab practicals, computing sessions, synthesis sessions (in which you discuss topics in depth), and a week-long residential field course in the UK.

Year 3

In Year 3 you choose 4 from 8 specialist modules. All combinations are possible and some modules contain a small number of practicals.

Your computing skills are developed and assessed, and you choose a topic to research and present orally. Journal club provides training in how to read and critique scientific papers.

In the summer term (Trinity Term), you work on a research proposal in conjunction with an academic supervisor. This is assessed as part of the BA and forms the basis of the fourth-year project for those who continue to Year 4.

Year 2

In Year 2 the depth of material increases and you begin to specialise. There are 8 modules (grouped into 4 themes) and you must select at least 6 modules from 3 themes. It is possible to attend the lectures in all modules, and all modules contain both lectures and practicals.

You receive compulsory training in statistics and quantitative methods, and can join an extended skills course. There are many exciting options, including intensive lab training and overseas or UK-based residential field courses. In previous years, options have included residential field courses in Tanzania, Tenerife and Northern Ireland.

You will make and present a scientific poster based on some aspect of your extended skills course.

Year 4

In Year 4 you complete an independent research project, and receive additional training in statistics and scientific writing.

You will choose three potential projects, and the Department allocates students to projects in the fairest way possible. Topics vary widely; some students engage in extensive fieldwork, some work in the lab, while others analyse data sets, sometimes provided by partner organisations.

Image: Prasad Abnave

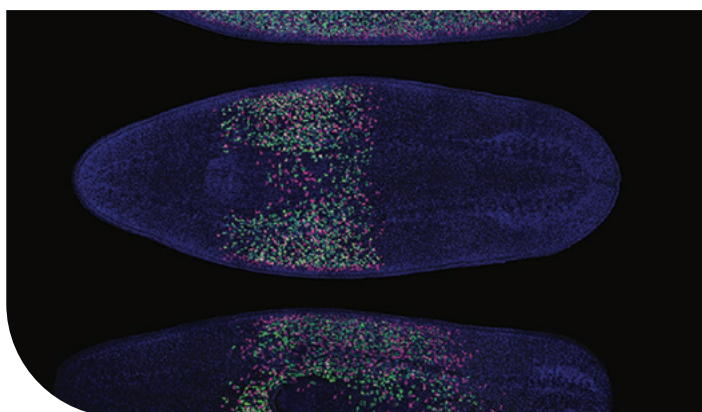


Image: Owen Lewis



TEACHING AT OXFORD

Biology is taught using a mixture of lectures, skills training (including field courses), classes, and tutorials. Lectures are designed to tell you about the important issues, theories, and research in biology, while skills training gives you the tools you need to become a modern biologist. We also use small group teaching for experimental design and quantitative data analysis. Extra reading is encouraged, and this should increase as the course progresses.

Oxford University's greatest asset is the tutorial system. This system means that you are likely to receive much more personal tuition and greater pastoral support than other universities can offer. The tutorial usually consists of a one-hour meeting, once a week, between the tutor and two/three students.

The tutorials are beneficial to students as they help develop key transferable skills, particularly evidence-based communication, critical thinking, and problem solving. The skills developed during tutorial teaching are indispensable for a number of diverse careers. Tutorials can vary in style but often, before the tutorial, your tutor will set you an essay to write and provide you with a reading list. You then hand in the essay before the tutorial, which is read and commented on by your tutor, and handed back at the start of the tutorial.

The discussion during the tutorial goes beyond the original topic, giving you a chance to talk about your own ideas and opinions. Most first-year tutorials take place in your college with your college tutors. In later years, most students have tutorials with a wide range of tutors, depending on their interests.

SKILLS TRAINING

You will be required to perform a range of lab, field, and computer-based investigations in the first three years of the biology course. These provide essential practical skills and knowledge to prepare you to engage with your own research in the optional MBiol year. Most lab practicals include a pre-lab session that must be completed before you enter the lab. In the first year, there are a small number of carefully selected dissections that have been designed with animal welfare and conservation principles in mind.

For the second-year skills courses, you choose from the different courses on offer — though due to limitations on the number of places, we cannot guarantee that you will get your first-choice course.

CAREER OPPORTUNITIES

Biology is a highly suitable foundation for all sorts of professions that require observation, communication, critical thinking, and intellectual skills.

Some of our students continue to postgraduate research at Oxford or further afield. Others use their skills and knowledge to establish careers in a variety of sectors, which may or may not have direct connections to biological topics. These vary from charity and not-for-profit, law, energy and the environment, financial services, consultancy, health and social care, government and public services, and media, marketing and publishing. [Read our course career case studies.](#)

GET IN TOUCH

For more information on applying to Oxford, search 'Oxford admissions'. The MBiol Biology course website provides more information on the course and advice on applying, as well as information about the Department itself and its excellent, award-winning research.

If you have any further questions regarding studying Biology at Oxford please get in touch:

Email: undergraduate.enquiries@biology.ox.ac.uk

Website: www.biology.ox.ac.uk



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OPEN DAYS

There's no better way to find out what Oxford is really like than to visit us. Many colleges and departments welcome arranged visits throughout the year but our [University Open Days](#) remain the most popular time to visit. Explore colleges and departments and talk directly to tutors and students to help you make your decisions.



Image: Dave Wilson

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