

Summer 2021 Online Course FAQs

Oxford International Study Abroad Programme

Internet Data Analysis and Fundamentals of Research Methods

Note:

The online summer Courses 2021 are adapted from Oxford Study Abroad On-campus Summer and Winter School @St Antony's College, University of Oxford in response to the COVID-19 pandemic.

The goal of these changes is to minimise the need to gather in large groups and spend prolonged time in close proximity with each other in spaces such as classrooms, dining halls, and residential buildings. Our actions are consistent with the recommendations of leading health officials on how to limit the spread of COVID-19 and are also consistent with similar decisions made by a number of our peer institutions.

The 2021 Summer online courses are taught by Oxford faculty online. You will not have to visit campus to complete an online course. While the online course allows students' flexibility in their schedules to some extent, they are also highly structured with clear expectations and due dates.

Students have many opportunities to practice and demonstrate what they are learning individually and in groups through discussion forums, writing assignments, projects, and video conferences.

1. Course Details

Online courses are much like classroom courses, except that the delivery of learning materials (lectures, homework, quizzes, readings) and interaction with students and instructors will be through the online system. Students may need to purchase textbooks or access materials online. Instructors and teaching assistants lead discussions and are available for feedback and questions. For courses that have a final assignment, they are taken online through the supervision of the instructors.

A certificate of participation and a final report with the grades of each participant will be awarded to participants who contribute constructively to lectures, seminars, discussions, and exercises/assignments for the duration of the course.

The modules will include 3 weeks of intensive online lectures and tutorials, followed by a period for assignment work. Attendance at modules will be a requirement for study. The course will include taught material on research skills. The taught modules will include group work, discussions, guest lectures, and interaction and feedback with tutors and lecturers. Case studies are used to illustrate real-world examples and develop the students' knowledge and understanding of the subject. A variety of teaching methods will be used in online elements of the course. The 3-week online course is roughly equivalent to 45 hours of classroom time, and please read the content below for more detailed information on the programme.

Course - Internet Data Analysis and Fundamentals of Research Methods (45 hours in total)

Course Description

The course is aimed at introducing the students with the areas of digital research and application of Big Data mining methods in Internet studies. The Internet is but one of many networks. Every network is different in its own way but there are striking similarities, whether we refer to traffic routing, infectious diseases, friendships on Facebook or gossip on Twitter. This course represents a primer in social network analysis, a longstanding approach to the generation and analysis of network data.

In this course, the instructors will introduce many of the fundamentals of social network analysis, text mining and topic modeling, in addition to the fundamentals of research design. We will work on many

examples through personal networks to newer network science approaches and advanced statistical modeling through lectures, seminars as well as group discussions with exercising tutoring.

Final Assessments:

A small group research project online presentation and an individual project.

Course Plan (45 hours)

Main Instructions on Internet Data Analysis and Fundamentals of Research Methods (32 hours)

- Introduction to Social Data Science and Data Mining
- Social Network Mining and Analysis – Basic Ideas
- Text-mining and Computational Text Analysis
- Social Network Analysis-Strength of Weak Ties and Centrality
- Data Visualization
- Netlogo and agent-based modelling
- An Introduction to Machine Learning
- Social Network Research Methods and Design

Workshops and Project Tutorials Q&A (5 hours)

Public Lectures (6 hour)

- The Future of AI and Machine Learning
- AI and Big Data
- Me, My Spouse and the Internet: Meeting, Dating, and Marriage in the Digital Age
- The Secrets of Creativity from Big Data

Sharing Session (2 hours)

What is My Life Like in Oxford by Two Ph.D. students in Oxford University?

2. What should students know before enrolling in an online course?

While the registration process for online and on-campus classes is often similar, prospective online students should review the course type and requirements before enrolling.

1) English proficiency

(1) IELTS: minimum 5.5 for the overall average

(2) TOEFL: minimum 85 for the overall score

(3) College English Test (CET)-4: minimum 425 (applicable to Chinese university applicants only.)

(4) College English Test (CET)-6: minimum 425 (applicable to Chinese university applicants only)

* For those applicants who have not taken the above tests by the time of application or have not been in a professional English-speaking environment for years, their English proficiency must be assessed through tele-interview by the programme officer.

* This requirement for proof of English proficiency is not required for applicants whose first language is English, those whose first language is not English but have been involved in a full-time degree-level academic programme at a university where English is the language of instruction, or those who have extensive experience working in a professional English-speaking environment.

* The selection panel of the Course will consider the overall qualifications of each applicant.

2) Sound academic performance

70 (on a 100 scale) at the minimum.

Requirements can be different due to different grading systems of different partner universities. For more details, please contact your home institutions.

*Basic to intermediate skills in programming in Python are required for the Internet data analysis course, and the detailed pre-requisites are followed below:

Note: Students are not required to master all the below skills when they apply for the course, instead they just need to meet the pre-requisites before the course starts.

Programming: Students should be familiar with the basics of Python 3.x.

This includes an understanding of the simple types of objects (strings, collections, integers and floats), conditional statements (if, elif, else), loops, basic functions (but not necessarily classes), file operations, and basic package management (venv and pip).

Libraries:

We will be using the following libraries. You do not need to be familiar with all of them, but you should be able to import them. They come standard with Anaconda if you are using this to run Jupyter:

The main libraries which we will use in the course include (but are not limited to): pandas, network-x, matplotlib (and possibly seaborn), scikitlearn, nltk, and numpy, although no prior familiarity with them is required at all. We will be covering each of these in class with examples.

Math and statistics

Although the math and stats will be lightweight for this course, there will be some. And we will expect rudimentary statistical knowledge:

- Math:
 - o What is a vector, what is a matrix, how do you transpose a matrix?
- Statistics:
 - o What are measures of central tendency? (mean, median, mode).
 - o What is a correlation?
 - o What is a p-value?
 - o We will be doing basic tests using one-way anovas, correlations, and t-tests.

3. Course Dates:

Orientation Day: 7th August 2021

Course Dates: 9th-27th August 2021 (3 Weeks)

Time: 15:30-19:00 China Time | 8:30-12:00 UK Time Monday-Friday

4. The tuition fee

Tuition Fee: £1, 250 Pounds

Notes:

***Each applicant from the partner universities is offered a favourable discount of £100 off the tuition fee.**

***There is no additional fee charged except the above tuition fee for this online programme.**

5. What does an online course look like?

Online courses are much like classroom courses, except that the delivery of learning materials (lectures, homework, quizzes, readings) and interaction with students and instructors will be through the online system. Students may need to purchase textbooks or access materials online. Instructors and teaching

assistants lead discussions and are available for feedback and questions. The course will have a final assignment, which is taken online through the supervision of the instructors. The course support officer will email you on the Students Orientation Guide and prior to the course start date.

6. Does my online course require a final exam or assignment?

Final exams or assignments are timed, open book, and based in written or project work, which can be taken anywhere. The final exam and assignment will be made by the instructors. The course support officer will let you know the details before the course begins, who will send you an email by providing you with some scoring information during the term.

Note: Students themselves are responsible for all arrangements connected to final exam or assignment and reading materials before the course starts.

7. I am going to be in another country during the course time. Can I still take an online course? How do I take my final exam in another country?

Yes, as long as you have a high-speed Internet connection, you can participate fully in the online course.

Note: Students themselves are responsible for all arrangements connected to final exam or assignment and reading materials before the course starts.

8. How do students interact in an online class?

Students may communicate through discussion forums, social media, and particularly for group work –videoconferencing, as well as phone and email.

Online learners interact with instructors in similar ways, though they may need to be more proactive than on-campus students to develop a strong relationship. That may involve introducing themselves to their instructor before classes start and attending discussions.

9. How do I get my course materials, course schedule, assignments, and grades?

The course support officer will deliver you all the course materials, course schedule, assignments, and grades. If your class requires you to purchase a text or accompanying materials, you may need to purchase by yourself.

10. What are typical assignments in online courses?

In general, students should expect assignments that are similar to those in on-campus programmes, such as research papers – in addition to online-specific assignments, such as responding to professor-posed questions in a discussion board.

An online course may also require group projects where students communicate virtually, as well as remote presentations. These can be challenging for online learners, who often live across various time zones.

11. Technology Requirements

- The online courses rely on **Zoom or Microsoft Teams** for videos and other course materials.
- You need access to a computer (desk or laptop) and a reliable internet connection for the duration of the course.
- Web camera and microphone (most laptops have them built-in), so having a camera and microphone will help you connect with instructors.
- No advanced technology or additional software is needed.

12. Time Commitment

- You will spend about 20-30 hours each week attending lectures, reading course texts, studying for assignment, posting to the discussion forums, or working on projects with your classmates.
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13. Add/Drop/Withdraw from Course

- Online classes are bound by the same add/drop/withdraw from course deadlines, which is clearly explained in the terms and conditions of the Programme Application Form.
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14. Sections & Discussion Part in Class

- Sections and discussion time are your opportunity to apply what you learn from the lectures and reading and interact with your classmates to test your ideas.
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15. After Enrolling

- **After enrolling in an online-only class:**

Start checking your **email**.

A few days before class begins, the course support officer will email instructions to your email account. When you enroll in classes, you will get an email from the faculty (nothing automatic or immediate). They will message you closer to when class begins. If you see that you're enrolled in your email, you can be confident that you are, in fact, in the class.

Courses are hosted on **Zoom or Microsoft Teams**. You do need to sign up for an account, login with your username and password, which will be guided online by the course support officer.

16. Time vs. Pace

- One benefit of an online class is that you can often complete the online portions of the readings and discussions at any time of the day or night. Online classes do have **deadlines** for assignments, and occasionally exams are scheduled at times when students have more flexibility (e.g., early in the morning, late at night, or on weekends).

Note: The video of the teaching will be recorded for your convenience. Therefore, you may leave the virtual classroom in case of an emergency. And the final assignments are due to roughly end of the course. Enrolled students will be expected to have access to a computer with a stable internet connection throughout the full session.

17. Course Evaluations

- Done completely online at the end of class. Evaluations come to your email. Evaluations are extremely important: instructors and teaching assistants value your feedback and use it to make real change.

18. Background Information: Oxford University and Colleges

The college system is a major traditional feature of Oxford and Cambridge. This Collegiate System is different from the colleges we usually understand. According to the divisions of the majors such as "School of Science", "Business School" and "Engineering School", the Oxford College is not divided by different subjects but has a multi-community of multiple subjects and inclusive packages. The Oxford University's college is more like an independent small university, with higher autonomy, in charge of its own finances, managing students' food, clothing, housing, and transportation, and cooperating with the university's various subject teaching departments to manage student teaching. In addition to having a tutor in the department and a tutor at the college, the college provides an important place for both academic and social life.

In addition to the College, Oxford's teaching and research activities (especially the latter) are organised into 16 departments. The Faculty is not an autonomous unit within the university. Faculties are inter-academic institutions and are not affiliated with any college. However, the teachers and students of each department must first be a member of a college within Oxford. At the same time, the students of each college belong to different departments.

Oxford University does not have a tangible independent campus but is scattered throughout the city and integrated with the city, so it is described as “a city in the university”. This is due to historical reasons. Since the 11th century, scholars have spontaneously gathered here to carry out teaching research, and the University has gradually evolved with the expansion of scale, rather than in the process of unified planning and construction. Therefore, Oxford is also the only university in the world that has no anniversary of its founding, because the year and date of founding cannot be defined.

The organisational structure of Oxford University has two dimensions: one dimension is the academic level, divided into 59 Departments; the other dimension is the administrative level, divided into 38 Colleges.

Each faculty member and student are associated with one Department and one College. This system, quite unique, is called the Collegiate System. Its biggest feature is the decentralisation of power. Each college is responsible for funding, teaching, and research. The university is only responsible for integrating the colleges. The Vice-Chancellor of Oxford University also has duties such as attending University ceremonies and the organisation is very similar to the federal system of a state polity.

This system is common in large and comprehensive academic institutions, such as Cambridge University when it was first established.

If you have any additional questions or concerns, please feel free to send emails to info@oxfordstudyabroad.org.uk or apply@oxfordstudyabroad.org.uk.