

# Winter 2022 Online Courses FAQs

Oxford Study Abroad Programme

Online Courses Winter 2022

17<sup>th</sup>-29<sup>th</sup> January 2022

**Course 1: Artificial Intelligence and Machine Learning**

**Course 2: Business and Management - Entrepreneurship and Leadership**

Note:

OSAP online courses have been organised in response to the COVID-19 pandemic. The goal of these online courses 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. This is consistent with the recommendations made by leading health officials on how to limit the spread of COVID-19 and is consistent with similar decisions made by a number of our peer institutions.

## [1. What are Online Courses like?](#)

Online courses are similar to classroom courses, except that the delivery of learning (lectures, homework, quizzes, readings) and interaction with students and instructors is all online. The 12-day programme of modules includes intensive online lectures and tutorials, followed by a period for assignment work. Attendance on the modules is required in order to complete the course.

Most days start with a lecture delivered by the instructor, which is complemented with a seminar for Q&A, discussions, and feedback. Workshops, tutorials, and group work are followed to consolidate the students' learning on the course. Case studies are used to illustrate real-world examples and develop the students' knowledge and understanding of the subject.

A certificate of participation and grade (letter) will be awarded to each participant for their constructive contributions in lectures, seminars, discussions, exercises and assignments for the duration of the course.

## [2. Outlines for the Online Courses Winter 2022 \(Two Courses\)?](#)

### **Course 1: Artificial Intelligence and Machine Learning (40 contact hours in total)**

#### **Course Plan**

All sessions start with a look at the wider implications of artificial intelligence on society, the economy and the world, and follow with the technical sessions.

### **3. Pre-requisites:**

#### **1.1 Mathematics**

Students should develop some skill and familiarity with the mathematical topics below. Knowledge of these topics may be acquired by the students before the course starts.

## Mathematical Topics

- Matrices
  - What a matrix is: Matrix representation of data-sets
  - Matrix operations: Addition (+), Subtraction (-), Multiplication (.), Transpose (T)
  - The link between algebra and matrices: Expressing systems of algebraic equations in matrix form
- Probability
  - What is a 'probability'?
  - Different views of what a probability represents: Bayesian Vs. Frequentist view
  - Operations on probabilities: 'AND' and 'OR'
  - Definitions: 'Statistical distribution', 'Sample Space', 'Random Variable'
  - Discrete Vs. Continuous Random Variables and the relationship between them
  - Expectation: Definition and use in valuing options

## 1.2 The course programming language is Python

Python Programming Language

- You do not need to be highly skilled at Python before starting the course
- The majority of activities will require you to read and replicate existing code, but not to write new programmes

## Course Outline (40 contact hours in total)

### Part 1: Artificial intelligence on society, the economy and the world (10 contact hours)

### Part 2: Technical Sessions (20 contact hours)

- Model Building
- Unsupervised learning
- Model Fitting
- Beyond linear models: Polynomial and logit fits
- Classic ML Algorithms
- Gaussian Mixture Models
- Natural Language Processing
- Deep Learning
- Reinforcement Learning

### Part 3: Public Lectures (8 contact hours)

- The Future of Work
- AI and Big Data
- The Application of AI
- The Secrets of Creativity from Big Data

### Part 4: Sharing Sessions (2 contact hours)

What is My Life Like in Oxford by Two PhD students of Oxford University?

### Final Assessment:

An individual project is required by the instructor for the final assessment.

## **Course 2: Business and Management-Entrepreneurship and Leadership (40 contact hours in total)**

### **Course Outline (40 contact hours in total)**

#### **Part 1: Entrepreneurship (18 contact hours)**

- The Entrepreneurial Process
- Corporate Entrepreneurship
- Forms of Finance & The Financial Model
- Intellectual Property
- Business Models

#### **Part 2: Leadership Module (12 contact hours)**

- From 'start-up' to 'grown-up': Scaling organisations through design (Google/ Alphabet case study)
- Power and Influence: Leading with and without Authority (I'll write a new role play for this session on the Sherpa at Mount Everest)
- Organisational culture and inclusion in the technology industry (#MeToo: Susan Fowler's very strange year at Uber)
- Self-organising through technology (Zappos Case Study)

#### **Part 3: Public Lectures (8 contact hours)**

- The Future of Work
- AI and Big Data
- The Application of AI
- The Secrets of Creativity from Big Data

#### **Part 4: Sharing Sessions (2 contact hours)**

- What is My Life Like in Oxford by Two PhD students of Oxford University?

#### **Final Assessment:**

A business plan is required to be presented in small groups on the last day of the course.

\*Note: The content of this statement is subject to change as a result of new information, changes in process requirements and the availability of resources.

### **3. Entry Requirements?**

#### **Eligibility**

1 year of undergraduate study and aged 18 or above, i.e., undergraduate and postgraduate (including MSc students and PhD students)

#### **GPA requirement**

At the time of joining the OSAP programme you will normally be able to demonstrate an average grade, or equivalent academic experience, of:

- 2.8/4.0 GPA (US scale) or 70/100 Percentage Grade Level or 2:2 (UK scale)

#### **Notes:**

\* 1st-year undergraduates from some partner universities do not need to submit academic results. For more details, please contact your home institution.

\* Please note that for the AI and ML course, there are additional pre-requisites. Please see individual course pages for details or contact us at [apply@oxfordstudyabroad.org.uk](mailto:apply@oxfordstudyabroad.org.uk).

### English language requirement

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. Otherwise, you will need to demonstrate proficiency by providing us with a recognised qualification.

The majority of modules normally require a level of minimum IELTS 5.5 or equivalent. Please find more details below:

### English proficiency

- (1) IELTS: minimum 5.5 for 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 500 (applicable to Chinese university applicants only)

\* For 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 will be assessed through a virtual-interview by the programme officer.

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

## 4. Course Dates and Time:

**Course Dates: 17th-29th January 2022**

### Contact Hours Per Day Monday to Saturday

- **Artificial Intelligence and Machine Learning Module:**

13:00-16:30 China Time | 5:00-8:30 UK Time Monday-Friday

- **Entrepreneurship and Leadership Module:**

17:00-22:00 China Time | 9:00-14:00 UK Time Monday-Friday

- **Public Lectures**

17:00-21:00 China Time | 9:00-13:00 UK Time Saturday (22<sup>nd</sup> and 29<sup>th</sup> January 2022)

\*Note: The schedules are subject to slight change as a result of new information and the availability of resources

## 5. 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, namely, £1, 150 Pounds for each participant from partner universities.

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

## **6. Merit Scholarships**

A limited number of Merit Scholarships (normally for university students) is available for those participants who demonstrate a competitive performance during the programme and in their home institution, which will cover about 10% of all participants.

Application Deadline: Varies

Amount: Varies from £100 Pounds to Full-Tuition

Scholarship judging criteria consist of:

- a GPA of minimum 3.5 on a 4.0 scale or equivalent, and/or your ranking in your home university;
- the academic performance in the final assessment on the course;
- other factors may also be considered for the scholarship election process, such as following the programme rules with good manners; your college and university rankings etc.

Please note that the programme officer will ask you to submit the relevant documents to apply for the scholarship after the course ends.

The namelist of the Merit Scholarship winners will be announced via emails within about 2 months after the Deadline for collecting all applications.

## **7. Time vs. Pace**

One of the benefits of doing an online class is that you can complete the work and the readings at any time of the day or night and at your own pace. Online classes do have deadlines for assignments, which are due towards the end of the course, and the instructors/examiners will let you know more details including the DDL for the assignments.

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.

Please note that no lectures will be recorded on video to protect intellectual property, so please try to make sure you attend as many sessions as possible in order not to miss out on the course content.

## **8. I am going to be in another country during the course schedule. Can I still take an online course? How do I take my final exam in another country?**

Yes, as long as you have a smooth Internet connection, you can participate fully in the online course at home or abroad.

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

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

The course support officer will deliver you all the essential course materials, course schedule 1-2 weeks before the course starts. If your course lists additional texts or reading materials, you may choose to purchase them by yourself.

Within 1-2 months after the course ends, the certificate and grade (letter) will be delivered to your home institution.

### **10. How do students interact in an online class?**

Students may communicate with other participants through discussion forums and social media, in particular during group work, during video conferencing, as well as by phone and emails.

Discussion time allocated during or after each session is your opportunity to apply what you have learnt and interact with your classmates to discuss your ideas. Participation in discussions is a vital part of the courses, and students are encouraged to actively participate throughout by asking questions to the instructor and discussing ideas with your fellow students.

Online learners interact with instructors in a similar way, though they may need to be more proactive than on-campus to develop strong relationships. This may involve introducing yourself to the instructors and to the other students on the course before lectures or discussions start. Please note that a few minutes before each lecture ends, or after the explanation for one point is completed, the instructor will ask if anyone has questions or comments relevant to the course or the mentioned point. The participants are expected to take this opportunity to ask questions and make comments.

Students on the online courses are encouraged to have their video on when they speak, so that the instructor can engage with them more easily. Students can turn the video off when the instructors are giving their lectures in order to improve their online connection functions.

### **11. What are typical assignments on the 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 questions posed by the professor in a discussion.

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

The final assignments for the two courses are listed in **2. Outlines for the Online Courses Winter 2022 (Two Courses)?**

## **12. Platform and Technology Requirements?**

The online courses are held on Zoom for the videoconferencing.

You need access to a computer (desktop or laptop) and a reliable internet connection for the duration of the course.

Web camera and microphone (most laptops have them built-in), to interact with the instructors and students.

Email access to communicate with the course programme staff of any absence or issues.

No advanced technology or additional software is needed.

## **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.

## **14. Application Procedure**

**Step 1:** Complete and submit the Application Form according to the instructions from your home institution.

**Step 2:** Confirm the Acceptance Letter and Invoice.

Please check your email. You'll receive the Acceptance Letter 10-30 days after you submit the Application Form if you are offered a place in the course; the tuition fee invoice will also be attached. Please note that we may receive your Application Forms three or more weeks after your document submission, as it may take a long time to collect and pass on the Application Forms among different departments of your home universities after the application deadline. The fee payment will be due within 10-14 days after the invoice is sent to you via email.

**Step 3:** After enrolling for an online course by completing the payment, you will receive an email confirmation that your payment has been received from the programme officer. Usually, the overseas transfer reaches our bank account not instantly but a few days later.

A few days before the classes begin, the course support officer will email instructions to your email account.

When you enroll on a class, you will get an email from the faculty (not automatically or immediately). They will message you closer to when the classes begin. If you see that you're enrolled in your email, you can be confident that you are, in fact, on the course.

Courses are hosted on Zoom. You will need to sign up for an account, login with your username and password, which will be guided online by the course support officer 1-2 weeks prior to your course starts.

## **15. Course Evaluations**

Course Evaluations will be 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.

## **16. 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 go to your home institution or send emails to [apply@oxfordstudyabroad.org.uk](mailto:apply@oxfordstudyabroad.org.uk).