

Cambridge Scholars Program

Fall 2023

The Henry Bellmon Office of
**Scholar Development &
Undergraduate Research**

Hosted at

Magdalene College, University of Cambridge

Each summer, Scholar Development partners with Arts and Sciences Outreach to offer broadly engaging general education courses and unique learning experiences led by exceptional faculty for ambitious, adventurous OSU students in any major.



Disease, Drugs, and DNA:
Science Fact and Science
Fiction in the 20th Century

ENGL 3170
MICR 4990
HONR 3000

3 Credit Hours
August 7-18, 2023

Instructors:
Dr. Matt Cabeen
Dr. Tim Murphy

Apply by
Friday, February 17, 2023

Contact
Scholar Development
334 Student Union
405-744-7313
jessica.sullins@okstate.edu
okstate.edu/scholars

2023 | Course Description

Two world-changing scientific discoveries took place in England during the mid-20th century: penicillin in London and Oxford and DNA structure in Cambridge. The first ushered in the antibiotic age, the second jumpstarted molecular genetics, and both required collaboration among talented and ambitious men and women. The cultural influence of these landmark events can be traced through science-fiction literature and film right up to the present. We will discuss the details of these discoveries, the relationships among the scientists, the scientific context at that time, and intersections with historical and cultural events.

Instructions on page 2



STUDY ABROAD
College of Arts and Sciences



2023 Cambridge Scholars Program Application



STUDY ABROAD
College of Arts and Sciences

Course Description

This course will lead students through the history of two of the most important scientific achievements of the mid-20th Century, as well as the fictions and films those discoveries inspired. Our case studies will be the discovery of penicillin, which ushered in the antibiotic age, and the discovery of DNA structure, which jumpstarted modern molecular genetics. Both of these discoveries occurred in England, with penicillin first described by Alexander Fleming in the late 1920s in London and then purified, tested, and mass-produced by a team at Oxford just before and during WWII. About a decade later, Francis Crick, Rosalind Franklin, and James Watson described the double-helix structure of DNA while working at Cambridge. Both achievements required collaboration among talented and ambitious scientists, and both feature pioneering X-ray crystallographic work performed by women.

The cultural influence of these landmark scientific events will be examined through works of science-fiction literature and film by figures such as H.G. Wells, Stanislaw Lem, Ted Chiang, Octavia Butler, and David Cronenberg. We will also discuss the scientific logic and techniques employed by the research groups together with historical aspects, including the relationships among the scientists, how research was performed in the early 20th Century, and intersections with other contemporaneous historical and cultural events. Film screenings and excursions to sites related to the case studies will be offered.

Costs and Scholarships

The actual program fee is \$4300, however, all students accepted who participate in the course will receive substantial scholarship support (\$1500) bringing the cost down to \$2800. Further, the OSU Office of Study Abroad and Arts and Sciences Outreach have additional scholarships available. The cost includes three OSU credit hours, single room and board (with free breakfast and lunch daily), a formal dinner, guest lecturers, course-related excursions, and travel insurance. Items are subject to change.

The cost does not include airfare and other travel expenses to Cambridge, miscellaneous personal expenses, additional meals, and any costs associated with travel after the course. Scholarship support is made possible by the Lew Wentz Foundation and the Henry Bellmon Office of Scholar Development and Undergraduate Research. All tuition and applicable program fees, along with the scholarship support you receive, will appear on your Bursar account. This course is considered a fall semester course. This course is not eligible for OSU tuition waivers. Note: May 1, 2023 is the deadline to drop this course with no penalty. After that date, you will be responsible for all course costs, even though it will not appear on your Bursar account until August.

This is a statement of interest and application form, not an official OSU registration form. Completion and submission of this form will allow you only to be considered for acceptance to the program.

Name:

CWID:

Address:

City:

State:

Zip:

Email:

Phone:

Major(s):

GPA:

To Apply:

- All students must submit this form to Arts and Sciences Outreach (213E Life Sciences East) with an official transcript.
- Attach to this form:
 - Essay (500 words max.) on "The reason for my interest in taking this course in Cambridge, what can I contribute and how I expect to benefit from the experience."
 - Letter of recommendation from an OSU faculty member or advisor supporting your application.
 - Optional: Request for Additional Need-Based Funding. If applicable, provide a statement of financial need, including a list of all current scholarships.

Signature:

Date:

I confirm the accuracy of this information and wish to apply for this course.