

2020 Program:

# Disease, Drugs, and DNA: Science Fact and Science Fiction in the 20<sup>th</sup> Century

*Taught by*

Dr. Matt Cabeen  
and  
Dr. Tim Murphy

ENGL 3170

MICR 4990

HONR 3000

3 credit hours

**August 1-15, 2020**

*This is a fall semester course*

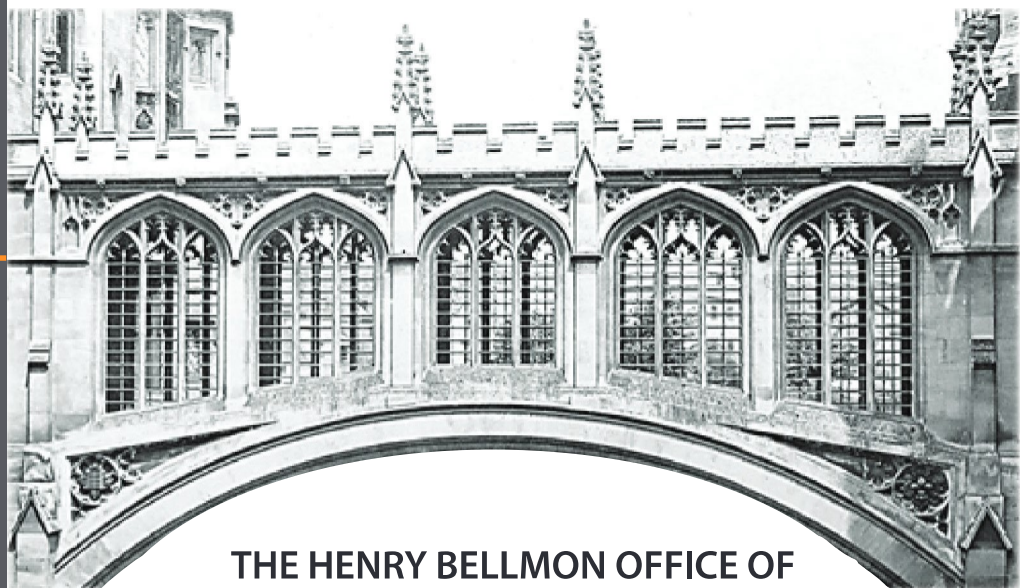
*Program hosted at*

Magdalene College,  
Cambridge UK



COLLEGE OF ARTS AND SCIENCES

# Outreach



THE HENRY BELLMON OFFICE OF  
Scholar Development and Undergraduate Research

## *Cambridge Scholars Program*

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**.

## 2020 Course Description

Two world-changing scientific discoveries took place in England during the mid-20<sup>th</sup> 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.

### Contact

Scholar Development  
334 Student Union  
405.744.7313

[jessica.sullins@okstate.edu](mailto:jessica.sullins@okstate.edu)  
[okstate.edu/scholars](http://okstate.edu/scholars)

### Apply by

**January 24, 2020**

FLIP FOR  
APPLICATION INSTRUCTIONS



# 2020 Cambridge Scholars Program Application

## Course Description

This course will lead students through the history of two of the most important scientific achievements of the mid-20<sup>th</sup> 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 20<sup>th</sup> 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 \$3600, however, all students accepted who participate in the course will receive substantial scholarship support (\$1500) bringing the cost down to \$2100. 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 *excludes* 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. Tuition and applicable program fees, along with the scholarship support you receive, will appear on your Bursar account at the beginning of the fall semester (August 2020) with the exception of a \$200 deposit billed at time of registration. This course is not eligible for OSU tuition waivers. Note: **April 1, 2020** 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:	
Street address:		
City:	State:	Zip:
Email:	Phone:	
Major(s):	GPA:	Current Classification:

1. All students must submit this form to Arts and Sciences Outreach (**213 Life Sciences East**).

2. Attach to this form:

- Essay** : "The reason for my interest in taking this course in Cambridge, what I can contribute, and how I expect to benefit from the experience." (max. 500 words)
- Official OSU transcript**
- Resume, CV, or list of activities**
- Letter of Recommendation** from an OSU faculty member or advisor supporting your application.
- Optional: Statement of Financial Need** (max. 400 words) listing all current scholarships.

Note: An additional \$500 in scholarship support may be available to students with exceptional need.

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

Signature:

Date: