



Boston University Study Abroad London

Boston University Study Abroad London Evolution, Genes and Genomes CGS NS 201 (CGS) Fall 2014

Instructor Information

A. Name Dr Rachel Hope

Course Overview

The aim of this course is to deepen your understanding of genes, genomes and evolution by considering four important questions:

- Are we shaped by nature or the environment?
- Can we end hunger?
- Are we still evolving?
- Can we end disease?

How we act on our findings has far reaching consequences for the way we live our lives.

Further aims of the course are to reflect on the scientific approach to problem solving and consider the influence of personality, culture and place on scientific endeavour.

Over the next five weeks your time on NS201 will be organised as follows:

Monday	09.30 – 10.00	Quiz
	10.00 – 12.30	Lecture/Class Activity
Tuesday	9.30 – 16.30	Field Trip
Wednesday	09.30 – 12.30	Lecture, Briefing and Guided Research
Thursday	09.30 – 12.30	Tutorials and Guided Research

You are expected to have read the set articles **before** Monday lectures.

Course Book

Swain, Harriet editor(2002). *Big Questions in Science*. Vintage. London

Additional reading may be found on Blackboard: <https://lms.bu.edu>

Assessment

4 short quizzes will account for 30% of the course grade (the best 3 marks will count).

1 short assignment (the “timeline” project) focused on personality, culture and place will account for 20% of the course grade.

Group power point presentation (the “connections” project) will account for 20% of the course grade.

1 short paper (<2000 words), based on **one** of the 4 important questions addressed by the course, will account for 30% of the course grade.

Excellent attendance, punctuality and engagement will be used to moderate final grades in borderline cases.

Grading

Please refer to the Academic Handbook for detailed grading criteria and policies on plagiarism: <http://www.bu.edu/london/current-semester>

**Final Grades are subject to deductions by the Academic Affairs Office due to unauthorised absences.*

Attendance Policy

Classes

All Boston University Study Abroad London Programme students are expected to attend each and every class session, tutorial, and field trip in order to fulfill the required course contact hours and receive course credit. Any student that has been absent from two class sessions (whether authorised or unauthorised) will need to meet with the Directors to discuss their continued participation on the programme.

Authorised Absence:

Students who expect to be absent from any class should notify a member of Academic Affairs and complete an Authorized Absence Approval Form 10 working days in advance of the class date (except in the case of absence due to illness, for which students should submit the Authorised Absence Approval Form with the required doctor’s note as soon as possible). **Please note: Submitting an Authorised Absence Approval Form does not guarantee an authorised absence**

Students may apply for an authorised absence only under the following circumstances:

- Illness, supported by a local London doctor’s note (submitted with Authorised Absence Approval Form).
- Important placement event that clashes with a class (verified by internship supervisor)
- Special circumstances which have been approved by the Directors (see note below).

The Directors will only in the most extreme cases allow students to leave the programme early or for a significant break.

Unauthorised Absence:

Any student to miss a class due to an unauthorised absence will receive a **4% grade penalty** to their final grade for the course whose class was missed. This grade penalty will be applied by the Academic Affairs office to the final grade at the end of the course. As stated above, any student that has missed two classes will need to meet with the Directors to discuss their participation on the programme as excessive absences may result in a ‘Fail’ in the class and therefore expulsion from the programme.

Lateness

Students arriving more than 15 minutes after the posted class start time will be marked as late. Any student with irregular class attendance (more than two late arrivals to class) will be required to meet with the Assistant Director of Academic Affairs and if the lateness continues, may have his/her final grade penalised.

Course Chronology

Tuesday 2nd September

9.30 – 10.15	Introductions	Course Overview: Genes, Genomes and Evolution.	
10.15 – 10.45	Assessment Briefings	Quizzes, Timelines and Short Paper.	
11.00 – 12.00	Lecture	Cells and DNA	
12.00 – 12.30	Briefing	Field Trip	Science Museum
14.00 – 16.00	Field Trip	Science Museum	Who am I?

Assessment:

Written Assignment: Timelines on British Scientist (hand in date Wednesday 17th September)

Reading:

Watts, Geoff (2002). Are we shaped by nature or by the environment? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp 92-95

Rutter, Michael (2002). Are we shaped by nature or by the environment? In Harriet Swain, ed. *Big Questions in Science*. Vintage. London. pp 96-102

Wednesday 3rd September (George & Peto Room, 1st Floor, 43 Harrington Gardens)

9.30 – 10.30	Lecture and Briefing	Nature or Nurture
10.30 – 12.30	Guided Research	Nature or Nurture

Thursday 4th September

9.30 – 10.00	Group A	TUTORIAL	When not in tutorial, carry out individual research on Timeline or Guided Research on “Nature or Nurture.”
10.15 – 10.45	Group B	TUTORIAL	
11.00 – 11.30	Group C	TUTORIAL	

Monday 8th September

9.30 – 10.00	Quiz 1	
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09.30 – 12.30	Lecture/Class Activities	Are we still evolving? Evolution of Life/Evolution of Humans
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Assessment:

Quiz 1

Reading:

Buchanan, Mark (2002). Are We Still Evolving? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp188 – 191

Ruse, Michael (2002). Are We Still Evolving? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp192 – 197

Tuesday 9th September

9.30 – 10.00	Lecture	Briefing for Field Trip	
10.30 – 14.00	Field Trip	Natural History Museum	‘From the Beginning’ ‘Our Place in Evolution’
15.30 – 16.20	Field Trip	Attenborough Studio Darwin 2 Centre (NHM)	Who do you think you really are?

Wednesday 10th September

9.30 – 10.30	Lecture and Briefing	Are we still evolving?
10.30 – 12.30	Guided Research	‘Are we still evolving?’

Thursday 11th September

9.30 – 10.00	Group A	TUTORIAL	When not in tutorial, carry out individual research for the Timelines or Guided Research on “Are we still evolving?”
10.15 – 10.45	Group B	TUTORIAL	
11.00 – 11.30	Group C	TUTORIAL	

Monday 15th September

9.30 – 10.00	Quiz 2	
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10.00 – 12.00	Lecture/Class Activities	Can we end hunger? Biodiversity and Food lecture
12.00 -12.30	Briefing	Kew Trip

Assessment:

Quiz 2

Reading:

Hinde, Julia (2002). Can we end hunger? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp176 – 179

Heap, Brian (2002). Can we end hunger? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp180 - 185

Tuesday 16th September

10.00 – 14.00	Field Trip: Groups A	Kew Gardens: World Heritage Site
11.30 – 15.30	Field Trip: Group B	
13.00 – 17.00	Field Trip: Group C	

Wednesday 17th September

9.30 – 10.30	Lecture and Briefing	GM Crops and Connections Project
10.30 – 12.30	Guided Research	GM Crops

Hand in **Timelines** on a British Scientist **Wednesday 17th September**

Thursday 18th September

9.30 – 10.00	Group A	TUTORIAL	When not in tutorial, carry out Guided Research on “GM crops.”
10.15 – 10.45	Group B	TUTORIAL	
11.00 – 11.30	Group C	TUTORIAL	

Monday 22nd September

9.30 – 10.00	Quiz 3	
09.30 – 12.30	Lecture/Class Activities	Can We End Disease? Health and Disease

Assessment:

Quiz 3

Reading:

Garner, Mandy (2002). Can We End Disease? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp154 – 158

Sulston, John (2002). Can We End Disease? In H. Swain ed. *Big Questions in Science*. Vintage. London. pp159 – 163

Tuesday 23rd September

9.30 – 10.00	Lecture	Briefing for Field Trip
10.30 – 16.00	Field Trip	Chelsea Physic Garden

Wednesday 24th September

9.30 – 10.30	Lecture and Briefing	Malaria
10.30 – 12.30	Guided Research	Visit to DW2 and Malaria

Thursday 25th September

9.30 – 10.00	Group A	TUTORIAL	When not in tutorial, carry out Guided Research on “Malaria.”
10.15 – 10.45	Group B	TUTORIAL	
11.00 – 11.30	Group C	TUTORIAL	

Monday 29th September

9.30 – 12.30	Connections Project	Art Gallery Visit (Group Work)
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Tuesday 30th September

9.30 – 17.00	Field Trip	Down House	The Role of Time, Place and Culture on Scientific Endeavour
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Wednesday 1st October

9.30 -10.00	Quiz 4	
09.30 – 12.30	Library/Prince Consort Room	Work on Connections Project

Assessment:

Quiz 4

Thursday 2nd October

9.30 – 10.30	Group 1	Connections Project: Group Presentations
11.00 – 12.00	Group 2	

Assessment:

Presentation of Connections Projects

Hand in ‘Short Paper’

END OF COURSE
