UCL SUMMER SCHOOL
DARWIN AND THE HISTORY OF EVOLUTION

Key Information

Module code                ISSU0060
Taught during             Session One: Monday 1 July - Friday 19 July 2019
Module workload          45 teaching hours plus approximately 100 study hours
Module leader             Professor Joe Cain
Department                Department of Science & Technology Studies
Credit                    15 UCL credits, 7.5 ECTS, 4 US
Level                     Level 2, second year undergraduate
Pre-requisites            Standard entry requirements
Assessment                Podcast (40%), Visitor’s guide (60%)

Module Overview
Evolution is an idea at the heart of modern science and society. Everything evolves. This module explores the history of evolution as an idea, covering topics from the eighteenth century to the present. Yes, we will explore science: evolutionary biology has evolved and we’ll follow some of those changes. But there is so much more. London has been a key centre in the development of evolutionary studies. Darwin developed key ideas here. So did his predecessors, and many successors. We’ll visit locations such as Down House (Darwin’s family home), The Grant Museum of Zoology, The Natural History Museum, The Linnean Society and Oxford Museum of Natural History. We’ll explore episodes as diverse as (a) dinosaurs and deep time, (b) social Darwinism and corporate capitalism, (c) eugenics, (d) the clash in religion between fundamentalism and modernity, and (e) changing views of what it means to be human. We also explore the idea of hero worship and commemoration: for example, why does Darwin receive so much credit, and why is he buried in Westminster Abbey? There are no prerequisites: the science will be accessible to liberal arts students; the history will be accessible to science students.

Week One
- Biology before Darwin
- Darwin’s Origin of Species and its reception
- Science becomes a profession
- Social Darwinism

Week Two
- Fossils and museums
- Deep time and human evolution
- Down House and amateur science

Please note that this module description is indicative and may be subject to change.
• Scopes monkey trial
• Science and religion

Week Three
• Cathedrals to nature
• Natural theology
• Eugenics
• Anthropology of races
• Darwin and evolution today

Module Aims
As a history module, this course aims to develop skills working with original source materials: their reading, weighting, and critical assessment. It also aims to further develop analytical skills and critical interpretation. To develop knowledge of content in the history and context of evolutionary studies, this module surveys major themes, actors, and conceptual shifts – in short, what are the big ideas associated with evolution and Darwinism? It seeks to integrate broad historical themes and contexts into this survey.

As a science module, this course introduces students to some of the main arguments in evolutionary studies over the past 150 years. It is not suitable on its own as a course for evolutionary studies. Instead, it aims to introduce non-scientists to major themes and research directions in the field.

As a module using London as a learning space, this module uses site visits to localities related to Darwin and the history of evolution to reflect on the geography and locality of knowledge, its circulation, and the importance of place. One theme of this module is that location matters. It makes a difference.

Teaching Methods
Student responsibilities in this module will revolve around three components: class sessions, site visits and walking tours, and projects.

Class sessions will combine lectures and seminars. Lectures will provide context for other activities in the module. In seminars, students will reflect on course content and small reading assignments. Class sessions critically survey key content and historiography relevant to each theme. Students will have supporting reading lists of primary and secondary material should they wish to develop themes further in independent study.

The module places special emphasis on locality and geography. Some contact time will involve guided visits at sites key to the overall themes of the module. Several are locations with set-piece exhibitions. Others are locations made relevant by the module tutor through independent historical research.

Learning Outcomes
Upon successful completion of this module, students will:
• demonstrate knowledge and understanding in the history of science related to Darwin and the history of evolutionary studies
• demonstrate knowledge and understand at both the level of content and historiography (i.e., history and heritage)
• demonstrate the ability to interpret critically both primary and secondary sources
• approach new material in this module’s domain from a historical perspective and with a critical historian’s eye
• demonstrate an appreciation for the geography of knowledge

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Assessment Methods

- Individual project: 5-minute podcast (40%)
- Group project: 6-page A4 visitor’s guide (60%)

Key Texts

In preparation for the module, students should read the following:

Bryan, W. J. (1925). [speech delivered at Scopes Trial]. In Scopes Trial (ed.), The world’s most famous court trial: Tennessee evolution case (pp. 170-182) (Dayton, TN: Rhea County Historical Society)
Ask yourself: what was Bryan telling the court? What was he really talking about?

Ask yourself: how did Darwin describe “natural selection and “struggle for existence”?

Ask yourself: who decided Darwin should be buried in Westminster Abbey and what did they want it to symbolize?

In addition, students might read one of the many fine biographies of Darwin available, such as those by Janet Browne, Michael Ruse, or Charles Aydon. Other recommendations will be on the module website. If nothing else, the Wikipedia page on Darwin is a good start, but only a start.