



EvoS-2

Evolutionary Studies - applying evolutionary thinking outside the biology realm

Teacher: Filipa Vala (cE3c-FCUL)

Calendar: May 4-14 2020

Duration: 36 hours

Schedule: 13h-17h 5 days per week (4 hours may be replaced by attendance of symposia at a congress or conference cycle)

Objectives

Evolutionary theory provides a framework for understanding all living systems. Nevertheless, throughout the 20th century, with a few exceptions, evolutionary biologists have “avoided” using evolution to address problems related to our own species. EvoS is a program created by David Sloan Wilson at the University of Binghamton, and later adopted at other faculties that have joined into the EvoS international consortium. EvoS aims at turning evolutionary theory into a common language to areas that pertain to the natural world, including human affairs. This advanced course is part of the EvoS programme at the University of Lisbon.

General Plan

- Quick review of basic concepts in Evolutionary Biology: patterns and processes in evolution, micro and macro-evolutionary processes, speciation.
- Evolutionary biology as a means to solve problems in our societies – two classical examples: Darwinian medicine, conservation biology.
- The history of human societies viewed as an environmental adaptation process: biological evolution, cultural evolution, and gene-culture co-evolution.
- Evolutionary biology applied to humans in an historical perspective: eugenics, sociobiology’s “bad name”, evolutionary psychology.
- A recap of the Nature versus Nurture debate viewed in its socio-political context: the ideological

- debate of the 70's-80's (Darwin versus Marx)
- The Nature versus Nurture debate revisited: different theories of the mind; language as an example that “solves” the debate.
 - The evolution of “Selfishness” and “Altruism”: the unit of selection, Multilevel Selection Theory
 - “Darwinian behavior” in humans – where’s Darwin? the classic example: incest avoidance; a counter example, nepotism
 - “Darwinian behavior” in humans – the importance of evolving in groups, new examples: religion, examples from Behavioral Economics (*Homo sapiens versus Homo economicus*).
 - Development of short individual dissertations on topics of student choice
 - Presentations of case studies by the students (last 6 hours)

This course can have a recognition of 6 ECTS for FCUL PhD students enrolling in it as part of their first doctoral year. For students only requiring 5 ECTS recognized in their specific PhD programmes the last 6 hours of the course are not mandatory and the certificate will be on 'Topics in EvoS-2'.

Location: Departamento de Biologia Animal, FCUL

Nº (min, max) students: 5 - 16

Minimum formation: ‘Licenciatura’ (bachelor) in Biology or related areas

Directed to: PhD or MSc students in Biology, Evolution, Ecology or related areas, and postdocs and other professionals working in related topics.

Fee: free for 1st year PhD students in the Doctoral program in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV FCUL/FCUP) and Biology and Ecology of Global Changes (BEAG UL/UA) when the course counts credits for their formation, in which case the delivery of a final report done after the course is mandatory; 50 € for other PhD students from cE3c, 80 € for PhD students from institutions of the PEERS network (CFE-Coimbra); 125 € for FCUL Master students and unemployed; 180 € for BTI, BI and other PhD students; 250 € for Professional and postdocs.

When the maximum number of students is reached 10 vacancies will be available for non-paying 1st year PhD students mentioned above, being, by order of preference: 1) cE3c students; 2) BIODIV students (not from cE3c); 3) FCUL students (not from cE3c); 4) BEAG students (not from FCUL).

Deadline for applications: April 6 2020

Candidates should send a short CV and a motivation letter to Filipa Vala at the following email address: fdvala@fc.ul.pt) explaining why they are interested in the course. The cv and letter should be named as *1st-lastNAME-CV.pdf* and *1st-lastNAME-ML.pdf* (that is personalize the name of each file with your first and last name).

In the email please add the following information:

Full Name:

E-mail:

Phone:

Professional activity: Professional/Postdoc, BTI, BI (or other non-post-doc research grant), PhD student (with/ without scholarship), Lic. (Bachelor)/Master student

Academic formation:

PhD student of the 1st year of Doctoral programme BIODIV (FCUL/FCUP), Biologia (FCUL) or BEAG (FCUL or UA)?:

If yes to the above question, PhD student doing the Course to count credits for 1st year?:

PhD student of cE3c or CEF (Centro de Ecologia Funcional):?

If PhD student from another programme/centre, which: