136-307 Philosophy of Biology (Science 3)

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus. *
Time Commitment:	Contact Hours: A 1.5-hour lecture and a 1 hour tutorial per week Total Time Commitment: *
Prerequisites:	Two second year HPS subjects.
Corequisites:	*
Recommended Background Knowledge:	*
Non Allowed Subjects:	*
Core Participation Requirements:	*
Coordinator:	Assoc Prof Helen Ruth Verran
Contact:	Assoc Prof Helen Verran hrv@unimelb.edu.au
Subject Overview:	Is biology a unique and autonomous science? Or are biological issues and theories adequately dealt with by using the epistemological and ontological framework of the physical sciences? Do Kuhnian revolutions occur in the biological sciences? How are the functionalist biological sciences that study physiology and cellular processes linked to and/or distinct from the historical or evolutionary biological sciences? These are some of the questions considered in this subject. Discussion of such general issues is interspersed with case studies which might include study of the work of Robert Brown - an early 19th century taxonomist; consideration of the procedures adopted by the mid twentieth century metabolic biochemist, Hans Krebs; and the conditions that led to the rise of molecular biochemistry and genomics in the second half of the twentieth century.
Objectives:	Students who successfully complete this subject should... # develop facility with the core concepts of evolutionary theory; # understand the philosophical issues arising out of evolutionary theory; # develop the ability to assess claims about the social significance of contemporary biological research; # understand the effects of social, ethical, and cultural context on scientific theorising.
Assessment:	An essay of 2000 words 33.3% (due mid-semester), an essay of 2000 words 33.3% (due at the end of semester) and a 2-hour exam 33.3% (in the examination period).
Prescribed Texts:	Prescribed Texts: Further readings will be available on-line through the subject LMS website What Makes Biology Unique? Considerations on the Autonomy of a Scientific Discipline (Ernst Mayr), Cambridge University Press 2004
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2009/J07)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)**

	# **Bachelor of Science (https://handbook.unimelb.edu.au/view/2009/R01)** # **Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2009/355-AA)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	# develop skills in constructing and assessing the strength of arguments, identifying theoretical assumptions, and assessing conflicting argument; # improve critical thinking and analysis skills.
Notes:	This subject is only available to science students for credit at third year level. Students enrolled in the BSc (pre-2008 degree only), or a combined BSc course (except for the BA/BSc) will receive science credit for the completion of this subject. Students who have completed are not permitted to enrol in this subject. This subject is based on 136-207 but involves additional work.