

# HPSCGA26 – Models and Facts in Science

## Course Syllabus

2013-14 session | Brendan Clarke | b.clarke@ucl.ac.uk

This course explores two key themes in philosophy of science: models and facts. Models have a complicated role in scientific practice, but a simple and cohesive treatment in the philosophical literature. On the other hand, while it is hard to think of anything in science more basic than facts, the philosophical literature is disparate, and scattered. This course therefore aims to ground students in two core topics in philosophy of science, while developing their analytical skills in two very different styles of philosophical enquiry.

This course involves three elements: attendance at weekly seminars, topic presentations at these seminars, and written coursework.

**Seminars:** each seminar will be based on a particular philosophical topic. Each seminar will contain a short lecture, giving a schematic overview of a topic, a student presentation (see below), and a group discussion. Seminar topics will be decided during framing sessions during the first and sixth seminars of term. Seminars will be supported by a reading list on Moodle.

**Seminar presentation:** students will lead group discussions in the seminars. Topics to be chosen at the week one seminar

**Coursework:** students will complete three pieces of written work for this module. The first of these will be a short literature review of 1000 words, setting out the important philosophical contributions to a topic of your choosing drawn from the module. This exercise, and the feedback on it, will set the scene for a more substantial analytic essay of 3000 words on your topic. The final piece of coursework will be a short summary of one of your seminar presentations. Fuller instructions on coursework will be given during the course of the term.

## Course Information

### Basic course information

Moodle Web site:	Search for HPSCGA26 – Models and Facts in Science
Assessment:	1000 word literature review; 3000 word essay; 1000 word seminar presentation write-up
Timetable:	<a href="http://www.ucl.ac.uk/sts/hpsc">www.ucl.ac.uk/sts/hpsc</a>
Prerequisites:	No pre-requisites
Required texts:	No required texts, although we will use Bailer-Jones, D. 2009. <i>Scientific Models in Philosophy of Science</i> . University of Pittsburgh Press to as a central reference text during the first half of the term.

Course tutor(s):	Brendan Clarke
Contact:	<a href="mailto:b.clarke@ucl.ac.uk">b.clarke@ucl.ac.uk</a>   t: 020 7679 7132
Web:	<a href="http://www.ucl.ac.uk/silva/sts/staff/clarke">www.ucl.ac.uk/silva/sts/staff/clarke</a>
Office location:	22 Gordon Square, Room 2.1
Office hours:	Tuesday 12.00-13.00; Friday 12.30-13.30 and by appointment

## Schedule

UCL Week	Topic	Date	Activity
6	Framing session for models	17-01-14	Please read Bailer-Jones 2002 (available on Moodle)
7	These four sessions will deal with the philosophy of models: details of topics to be discussed in each will be available on Moodle.	24-01-14	For general reference, Bailer-Jones 2009 will be most useful. Specific readings to be made available on Moodle.
8		31-01-14	
9		07-02-14	
10		14-02-14	
10	Literature review deadline	17-02-14	
11	<b>Reading Week</b>	21-02-14	
12	Framing session for facts	28-02-14	
13	These four sessions will deal with the philosophy of facts: details of topics to be discussed in each will be available on Moodle.	07-03-14	Specific readings to be made available on Moodle.
14		14-03-14	
15		21-03-14	
16	Analytic essay deadline	24-03-14	
16		28-03-14	
18	Seminar presentation write-up deadline	11-04-14	

## Assessments

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### Summary

	Description	Deadline	Word limit
	Literature review	11.59 pm, Monday 17 <sup>th</sup> Feb 2014	1000
	Analytic essay	11.59 pm, 24 <sup>th</sup> Mar 2014	3000
	Seminar presentation write-up	11.59pm, 11 <sup>th</sup> Apr 2014	1000

### Assignments

Essays must be submitted via Moodle. In order to be deemed 'complete' on this module students must attempt all three.

### Criteria for assessment

The departmental marking guidelines for individual items of assessment can be found in the STS Student Handbook.

### Aims & objectives

#### Aims:

- To develop an understanding of two key philosophical issues: models and facts
- To develop a sense of the connections that these issues have with other aspects of philosophy of science (theories, realism, laws of nature, empiricism)
- To place the shifting discourse surrounding each concept in the broader history of philosophy of science (HoPoS) context
- To relate these (often highly abstract) philosophical discussions to simple historical or practical cases

#### Objectives:

By the end of this module, students should have:

- gained experience in doing philosophical work
- written three essays, each emphasizing different aspects of philosophical work
- developed substantial expertise on the topics of models and facts in science

### Reading list

For the first seminar, you should have read:

Bailer-Jones, D. 2002. Scientists' Thoughts on Scientific Models. *Perspectives on Science*. **10**(3): 275-301. Available from [publisher](#).

For the models section of the course, an extremely useful resource is:

Bailer-Jones, D. 2009. *Scientific Models in Philosophy of Science*. University of Pittsburgh Press

Specific readings will be made available in advance via Moodle.

### **Course expectations**

As well as submitting coursework, students are expected to attend, and participate in, weekly seminars.

### **Important policy information**

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Details of college and departmental policies relating to modules and assessments can be found in the STS Student Handbook [www.ucl.ac.uk/sts/handbook](http://www.ucl.ac.uk/sts/handbook)

All students taking modules in the STS department are expected to read these policies.

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