ARTS2388. Science: Good, Bad & Bogus
Semester 2, 2015

1. Course Staff and Contact Details
2. Course Details
3. Learning and Teaching Rationale
4. Teaching Strategies
5. Course Assessment
6. Extension of Time for Submission of Assessment Tasks
7. Attendance
8. Class Clash
9. Academic Honesty and Plagiarism
10. Course Schedule
11. Course Resources
12. Course Evaluation and Development
13. Student Support
14. Grievances
15. Other Information
1. Course Staff and Contact Details

Course Convenor, Lecturer & Tutor

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor Peter Slezak</td>
<td>(02) 9385 2422</td>
<td><a href="mailto:p.slezak@unsw.edu.au">p.slezak@unsw.edu.au</a></td>
</tr>
</tbody>
</table>

Room 315 Morven Brown Bldg.

Consultation Time: By appointment

2. Course Details

Units of Credit (UoC) 6

Course Description
What is knowledge? What is truth? What is science? How does science differ from other belief systems and other forms of inquiry? Is ESP real? Why are astrology and 'creationism' widely considered to be pseudo-sciences? Are there other, equally valid forms of knowledge besides the scientific one? Is there a conflict between science and religion? Was the Church of the 17th Century wrong in condemning Galileo? Questions such as these will be raised in this course because they provide an interesting vehicle for raising some of the central problems of epistemology and the philosophy of science. These problems include the nature of observation and evidence, theories and laws, explanation and prediction, among others.

In this course we will look at a series of major philosophical views concerning the nature of knowledge and justified belief, and the demarcation between science and non-science – pseudo-science or 'metaphysics'.

A central consideration will be the nature of rational thought and the place of critical inquiry in life including broader implications of a 'scientific outlook' in our lives – especially in the political and moral spheres.

Course Aims

1. - to provide an understanding of the basic concepts, arguments and issues in the philosophy of science such as scientific evidence, explanation, scientific method and scientific change. A key to understanding science is to see it in historical perspective through episodes such as the 17th Century Scientific Revolution and the 'Galileo Affair' which help raise the question of what makes an inquiry “scientific” by contrast with others such as astrology, parapsychology, creationism and religion.

2. - to consider the nature of various special sciences and their differences such as physics, biology, linguistics, psychology, social sciences and economics.

3. - to give students an understanding of the main controversies surrounding science concerning issues such as realism, instrumentalism, rationality and social constructivism.

Student Learning Outcomes

1. At the completion of this course students will be able to:
In this course you will learn about the long tradition of answers to the question: What is science? You will learn about philosophical approaches to the nature of observation and evidence, theories and laws, explanation and prediction, among others such questions concerning the nature of science. In addition, you will learn about the history of the ‘demarcation’ issue - from the early Greeks through the Scientific Revolution and on to the twentieth century, in the context of issues surrounding the nature of knowledge and science. You will learn to understand these in historical context: from the Pre-Socratics, to Hume, Kant, The Enlightenment, and the twentieth-century philosophers Wittgenstein, Popper and the ‘Logical Positivists’, as well as ‘post-positivist’ developments with Kuhn, Feyerabend and others. Recently a variety of ‘social constructivist’ views have also been hotly debated and giving rise to the so called ‘Science Wars’ and the notorious Sokal Hoax in the popular literature; these will also be discussed in the course.

Through exploring the central issues in philosophy of science, you will also learn to engage better in critical thinking, rational argument, debate and intellectual disputation concerning theories, explanations and evidence.
3. Learning and Teaching Rationale

The course approaches its core questions concerning science by directly engaging students in critical thinking through debate and discussion in lectures and small-group tutorials. You are encouraged to think critically about the issues presented in lectures and reading material in order to understand the force of arguments, evidence and explanation. That is, you will be encouraged to “do” philosophy and not just learn about it by rote. We will discuss the many controversial issues concerning scientific theories and the case for and against particular views of science. This means that disagreement and debate are encouraged as an inherent part of an open, critical approach to intellectual issues. The approach to teaching resembles the ‘Socratic Method’ involving dialogue and argument. Accordingly, there is no attempt to avoid disagreement or controversy but, on the contrary, rather the concern is to provoke it as a means of reaching a better understanding of the issues. More generally, the critical approach to learning and teaching is offered as a model for rational thinking about theories, explanations and evidence in any domain.

4. Teaching Strategies

The approach to learning and teaching in this course is the traditional method of lectures and tutorials. Tutorials provide a forum for structured discussion and debate by means of prescribed articles concerning central, important issues and views.

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Length</th>
<th>Weight</th>
<th>Learning Outcomes Assessed</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essay</td>
<td>3,000 words</td>
<td>30%</td>
<td>Critical, analytical thinking, theory &amp; writing</td>
<td>Friday Oct 30</td>
</tr>
<tr>
<td>Tutorial Journals</td>
<td>800-1,000 words</td>
<td>30%</td>
<td>Critical reading, understanding, theory</td>
<td>Weekly</td>
</tr>
<tr>
<td>Take-Home Test</td>
<td>1,000 words</td>
<td>2 x 20%</td>
<td>Critical, analytical understanding</td>
<td>Week 7 &amp; 13</td>
</tr>
</tbody>
</table>

Please Note: The Arts and Social Sciences Protocols and Guidelines state:

A student who attends less than 80% of the classes/activities and has not submitted appropriate supporting documentation to the Course Authority to explain their absence may be awarded a grade of UF (Unsatisfactory Fail).

The Attendance Guidelines can be found in full at: https://www.arts.unsw.edu.au/current-students/academic-information/Protocols-Guidelines/

Grades

All results are reviewed at the end of each semester and may be adjusted to ensure equitable marking across the School.
The proportion of marks lying in each grading range is determined not by any formula or quota system, but by the way that students respond to assessment tasks and how well they meet the objectives of the course. Nevertheless, since higher grades imply performance that is well above average, the number of distinctions and high distinctions awarded in a typical course is relatively small. At the other extreme, on average 6.1% of students do not meet minimum standards and a little more (8.6%) in first year courses. For more information on the grading categories see: https://student.unsw.edu.au/grades

Submission of Assessment Tasks

Assignments which are submitted to the School Assignment Box must have a properly completed School Assessment Coversheet, with the declaration signed and dated by hand. The Coversheet can be downloaded from https://hal.arts.unsw.edu.au/students/courses/course-outlines/. It is your responsibility to make a backup copy of the assignment prior to submission and retain it.

Assignments must be submitted before 4:00pm on the due date. Assignments received after this time will be marked as having been received late.

Late Submission of Assignments

The Arts and Social Sciences late submissions guidelines state the following:

- An assessed task is deemed late if it is submitted after the specified time and date as set out in the course Learning Management System (LMS).

The Late Submissions Guidelines can be found in full at: https://www.arts.unsw.edu.au/current-students/academic-information/Protocols-Guidelines/

The penalty may not apply where students are able to provide documentary evidence of illness or serious misadventure. Time pressure resulting from undertaking assignments for other courses does not constitute an acceptable excuse for lateness.

5. Extension of Time for Submission of Assessment Tasks

The Arts and Social Sciences Extension Guidelines apply to all assessed tasks regardless of whether or not a grade is awarded, except the following:

1. any form of test/examination/assessed activity undertaken during regular class contact hours
2. any task specifically identified by the Course Authority (the academic in charge of the course) in the Course Outline or Learning Management System (LMS), for example, Moodle, as not available for extension requests.

The complete Arts and Social Sciences Extension Guidelines can be read here.

If you wish to request an extension for submission of an assessment task, first consult your lecturer/convener, and you may need to do so via myUNSW using the Special Consideration section. You will need to submit documentary evidence in support of your request.

A student who missed an assessment activity held within class contact hours should apply for Special Consideration via myUNSW.
6. Attendance

The Arts and Social Sciences Attendance Guidelines state the following:

- A student is expected to attend all class contact hours for a face-to-face or blended course and complete all activities for a blended or fully online course.

- If a student is unable to attend all classes for a course due to timetable clashes, the student must complete the Faculty of Arts & Social Sciences Permitted Timetable Clash form (see information at Item 8 below). A student unable to attend lectures in a course conducted by the School of Education can apply for “Permission to Participate in Lectures Online”.

- Where practical, a student’s attendance will be recorded. Individual course outlines/LMS will set out the conditions under which attendance will be measured.

- A student who arrives more than 15 minutes late may be penalised for non-attendance. If such a penalty is imposed, the student must be informed verbally at the end of class and advised in writing within 24 hours.

- If a student experiences illness, misadventure or other occurrence that makes absence from a class/activity unavoidable, or expects to be absent from a forthcoming class/activity, they should seek permission from the Course Authority, and where applicable, should be accompanied by an original or certified copy of a medical certificate or other form of appropriate evidence.

- Reserve members of the Australian Defence Force who require absences of more than two weeks due to full-time service may be provided an exemption. The student may also be permitted to discontinue enrolment without academic or financial penalty.

- If a Course Authority rejects a student’s request for absence from a class or activity the student must be advised in writing of the grounds for the rejection.

- A Course Authority may excuse a student from classes or activities for up to one month. However, they may assign additional and/or alternative tasks to ensure compliance.

- A Course Authority considering the granting of absence must be satisfied a student will still be able to meet the course’s learning outcomes and/or volume of learning.

- A student seeking approval to be absent for more than one month must apply in writing to the Dean and provide all original or certified supporting documentation.

- The Dean will only grant such a request after consultation with the Course Authority to ensure that measures can be organised that will allow the student to meet the course’s learning outcomes and volume of learning.

- A student who attends less than 80% of the classes/activities and has not submitted appropriate supporting documentation to the Course Authority to explain their absence may be awarded a final grade of UF (Unsatisfactory Fail).

- A student who has submitted the appropriate documentation but attends less than 66% of the classes/activities will be asked by the Course Authority to apply to discontinue the course without failure rather than be awarded a final grade of UF. The final decision as to whether a student can be withdrawn without fail is made by Student Administration and Records.

Students who falsify their attendance or falsify attendance on behalf of another student will be dealt with under the Student Misconduct Policy.
7. Class Clash

Students who are enrolled in an Arts and Social Sciences program (single or dual) and have an unavoidable timetable clash can apply for permissible timetable clash by completing an online application form. Students must meet the rules and conditions in order to apply for permissible clash. The rules and conditions can be accessed online in full at: https://www.arts.unsw.edu.au/media/FASSFile/Permissible_Clash_Rules.pdf

For students who are enrolled in a non-Arts and Social Sciences program, they must seek advice from their home faculty on permissible clash approval.

8. Academic Honesty and Plagiarism

Plagiarism is presenting someone else’s thoughts or work as your own. It can take many forms, from not having appropriate academic referencing to deliberate cheating.

In many cases plagiarism is the result of inexperience about academic conventions. The University has resources and information to assist you to avoid plagiarism.

The Learning Centre assists students with understanding academic integrity and how to not plagiarise. Information is available on their website: https://student.unsw.edu.au/plagiarism. They also hold workshops and can help students one-on-one.

If plagiarism is found in your work when you are in first year, your lecturer will offer you assistance to improve your academic skills. They may ask you to look at some online resources, attend the Learning Centre, or sometimes resubmit your work with the problem fixed. However, more serious instances in first year, such as stealing another student’s work or paying someone to do your work, may be investigated under the Student Misconduct Procedures.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in an Honours thesis) or even suspension from the university. The Student Misconduct Procedures are available here: http://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf
### 9. Course Schedule

*To view course timetable, please visit: [http://www.timetable.unsw.edu.au/](http://www.timetable.unsw.edu.au/)*

<table>
<thead>
<tr>
<th>Week [x]</th>
<th>Commencing:</th>
<th>Topic &amp; Lecture Content</th>
<th>Tutorial Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>[7] Mon Sept 7</td>
<td></td>
<td>Scientific Realism</td>
<td>S. Psillos L. Laudan</td>
</tr>
</tbody>
</table>

- **Mon Sept 28** Mid-Semester Break


### 10. Course Resources

**Texts:**
All required readings for tutorials are available on the course Moodle website

**Essays:**
Suggested essay topics are available on the course Moodle website
11. Course Evaluation and Development

Courses are periodically reviewed and students’ feedback is used to improve them. Feedback is gathered using various means including UNSW’s Course and Teaching Evaluation and Improvement (CATEI) process.

12. Student Support

The Learning Centre is available for individual consultation and workshops on academic skills. Find out more by visiting the Centre’s website at:
http://www.lc.unsw.edu.au

13. Grievances

All students should be treated fairly in the course of their studies at UNSW. Students who feel they have not been dealt with fairly should, in the first instance, attempt to resolve any issues with their tutor or the course convenors.

If such an approach fails to resolve the matter, the School of Humanities and Languages has an academic member of staff who acts as a Grievance Officer for the School. This staff member is identified on the notice board in the School of Humanities and Languages. Further information about UNSW grievance procedures is available at:
https://student.unsw.edu.au/complaints

14. Other Information

myUNSW

myUNSW is the online access point for UNSW services and information, integrating online services for applicants, commencing and current students and UNSW staff. To visit myUNSW please visit either of the below links:
https://my.unsw.edu.au
https://my.unsw.edu.au/student/atoz/ABC.html

OHS

UNSW’s Occupational Health and Safety Policy requires each person to work safely and responsibly, in order to avoid personal injury and to protect the safety of others. For all matters relating to Occupational Health, Safety and environment, see
https://www.ohs.unsw.edu.au/

Special Consideration

In cases where illness or other circumstances produce repeated or sustained absence, students should apply for Special Consideration as soon as possible.

The application must be made via Online Services in myUNSW. Log into myUNSW and go to My Student Profile tab > My Student Services channel > Online Services > Special Consideration.
Applications on the grounds of illness must be filled in by a medical practitioner. Further information is available at:  
https://student.unsw.edu.au/special-consideration

**Student Equity and Disabilities Unit**

Students who have a disability that requires some adjustment in their learning and teaching environment are encouraged to discuss their study needs with the course convener prior to or at the commencement of the course, or with the Student Equity Officers (Disability) in the Student Equity and Disabilities Unit (9385 4734). Information for students with disabilities is available at:  
http://www.studentequity.unsw.edu.au/

Issues that can be discussed may include access to materials, signers or note-takers, the provision of services and additional examination and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.