**Lingnan University**  
**Department of Philosophy – MA in Practical Philosophy Programme**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Philosophy of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Code</td>
<td>PHI 528</td>
</tr>
<tr>
<td>Recommended Study Year</td>
<td>-</td>
</tr>
<tr>
<td>No. of Credits/Term</td>
<td>3</td>
</tr>
<tr>
<td>Mode of Tuition</td>
<td>Lecture and Tutorial</td>
</tr>
<tr>
<td>Class Contact Hours</td>
<td>2 hours lecture per week, 1 hour tutorial per week</td>
</tr>
<tr>
<td>Category in Major Programme</td>
<td>Philosophical Thinking</td>
</tr>
<tr>
<td>Prerequisite(s)</td>
<td>-</td>
</tr>
<tr>
<td>Co-requisite(s)</td>
<td>-</td>
</tr>
<tr>
<td>Exclusion(s)</td>
<td>-</td>
</tr>
<tr>
<td>Exemption Requirement(s)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Brief Course Description**

In this course, we will explore a number of the central issues in contemporary philosophy of science: How should we understand the progress of science? How are scientific theories tested or confirmed? Does social bias affect the content of science? Do scientific theories aim at revealing the deep reality of the world? Moreover, the students will be made acquainted with the views of some 20th century classics in philosophy of science (Carnap, Popper, Hempel, Kuhn, Feyerabend) as well as with the more recent developments in the field.

**Aims**

To enable students to better understand the logic of scientific reasoning and thereby also put students in the position to make more informed decisions about controversial issues involving scientific claims and expert knowledge.

**Learning Outcomes**

On successful completion of the course, students will be able to:
1. better understand the nature and definition of science
2. familiar with the important proposals about the demarcation between science and non-science
3. describe various theories of scientific rationality
4. explain the nature of scientific explanation and prediction
5. evaluate the different explanatory models of scientific progress
6. engage in the debate between scientific realists and instrumentalists and the nature of scientific methodology and main issues in philosophical analysis of scientific activity

**Indicative Content**

1. The distinction of science and pseudo-science; scientific rationality; different historical episodes of scientific progress.
2. The nature of scientific explanation: Hempel, Kitcher, Salmon, Van Fraassen, etc.
3. Testing of scientific theories
4. Scientific realism and instrumentalism.

**Teaching Method**

Class activities will include lectures and in-class group discussions and presentations on special topics.

**Measurement of Learning Outcomes**

1. Students will give oral presentations on assigned readings. They are expected to summarize, paraphrase and respond critically to the arguments in these texts.
2. Students will write philosophical essays, the topics of which correspond to the contents of the lectures. They are expected to present their interpretations and criticisms effectively.
3. The term-end paper will assess students’ basic knowledge of theories of philosophy of science.

**Assessment**

Group presentation and essays: 40%
Written assignments: 60%

**Required Readings**


**Supplementary Readings**