

# Philadelphia University

*Faculty:* .....

*Department:* .....

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## Module Syllabus

**Module Name: Scientific Methods**      **Module Number: 111160/61**

*Level:* .....

*Credit Hours: 3 Hours*

*Prerequisite / Co-Requisite:* .....

**Lecturer (Name, Academic Rank) Dr. Towfic Shomar (Assistant Prof.)**

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*Office Hours:*

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### Aims (Module Purpose):

This course aims to give the students solid grounds in doing scientific research. It discusses the methodology of scientific research highlighting various scientific methods and to discuss the development of methods.

### Teaching Methods:

- Lecturing
- Course work: work sheets
- Visiting the library
- Discussions
- Practical examples

### Learning Outcomes:

*At the end of this module, student will be able to:*

- Conduct scientific research properly.
- Demonstrate good knowledge of different scientific methods.
- Understand and demonstrate good knowledge in research methodology.

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**Module Outline:**

Week	Date	Subject
(1)		<ul style="list-style-type: none"> <li>• Research methodology:</li> </ul>
(2)		<ul style="list-style-type: none"> <li>- Research procedures: Choosing a research subject; choosing theoretical and methodological perspective; collecting data; analyzing data, drawing conclusion.</li> <li>- Methods of collecting data: surveys; questionnaires; participants' observation</li> </ul>
(3)		<ul style="list-style-type: none"> <li>• quantitative method</li> </ul>
(4)		<ul style="list-style-type: none"> <li>• qualitative methods</li> </ul>
(5)		<ul style="list-style-type: none"> <li>• Scientific methods vs. <b>The</b> scientific method</li> </ul>
(6)		<ul style="list-style-type: none"> <li>• Deduction (Logic)</li> </ul>
(7)		<ul style="list-style-type: none"> <li>• Deduction (Logic)</li> </ul>
(8)		<ul style="list-style-type: none"> <li>• Critiques: Kant</li> </ul>
(9)		<ul style="list-style-type: none"> <li>• Experimentalism: Bacon.</li> </ul>
(10)		<ul style="list-style-type: none"> <li>• Scepticism: Descartes</li> </ul>
(11)		<ul style="list-style-type: none"> <li>• Induction: the problem of Induction</li> </ul>
(12)		<ul style="list-style-type: none"> <li>• Popper's alleged solution to the problem of induction</li> </ul>
(13)		<ul style="list-style-type: none"> <li>• Falsification</li> </ul>
(14)		<ul style="list-style-type: none"> <li>• Analytical method</li> </ul>
(15)		<ul style="list-style-type: none"> <li>• Positivism (logical) and empiricism</li> </ul>
(16)		<ul style="list-style-type: none"> <li>• Wittgenstein: language-game</li> </ul>

**Modes of Assessment:**

Modes of Assessment	Score	Date
<b>First Exam</b>	<b>15%</b>	<b>23/11/2008</b>
<b>Second Exam</b>	<b>15%</b>	<b>21/12/2008</b>
<b>Assignment / Seminar / Project / Quizes / Totorial</b>	<b>20%</b>	<b>first week of January</b>
<b>Final Exam (Comprehensive written exam).</b>	<b>50%</b>	<b>As will be set from R</b>

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► Make-up exams will be offered for valid reasons only with consent of the Dean. Make-up exams may be different from regular exams in content and format.

## Attendance Policy:

Lecture attendance is mandatory. Student is allowed maximally 15% absence of the total module hours.

More than this percentage, student with an excuse will be drawn from the module. Otherwise, student will be deprived from the module with zero mark assigned.

## Expected Workload:

*On average you should expect to spend at least (8) hours per week on this module.*

## References:

*Students will be expected to give the same attention to these references as given to the Module textbook(s)*

- Baugh, L., How to write term papers and reports, 2<sup>nd</sup> edition, VGM, Illinois 1997.
- Black, J & D. Champion, Methods and issues in social Research, Wiley, New York 1976.
- Leedy, P., Practical Research, 4<sup>th</sup> edition, Macmillan, New York 1989.