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PREFACE

The rebranding of 8 modules has been approved by the UMP Senate in February 2016. The 8 modules comprise:

i. Philosophy of Science and Ethics in Research
ii. Research Overview
iii. Literature Review
iv. Methodology
v. Data Collection and Analysis
vi. Scientific Writing
vii. Preparation for viva-voce
viii. Conceptual Paper

8 modules are one of the Institute of Postgraduate Studies (IPS) initiatives in helping students to understand ways and means to carry out research at Master's and PhD level. There are 2 sets of 8 modules provided by IPS in accordance with the technology and engineering cluster. These 8 modules are intended to help students in conducting systematic research owing to its utmost importance in determining the effectiveness and efficiency of the research process. The 8 modules shall help students to understand the research problem and identify the areas of research. The modules also assist students on how to write a literature review in order to understand how other researchers approach, define or manage the problem to keep the research pertinent to what is current in the field. In addition, 8 modules also facilitate students to understand the methods of collecting data in an organized and controlled way to achieve valid results, analyze the data according to the considered problem and make conclusions. Therefore, IPS hopes that these modules will be able to provide some insights and benefit students in conducting research at Master's and PhD level.

INSTITUTE OF POSTGRADUATE STUDIES
UNIVERSITI MALAYSIA PAHANG

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MODULE DESCRIPTION

This module provides an overview concerning the philosophy of science and how it relates with the purpose of knowledge development process through education. It introduces the concept of philosophy and its underlying questions. It is crucial to understand this concept because knowledge development through R&D occurs intensively at higher education level. Therefore, this module will discuss the reality of existence, epistemology of knowledge, ethics and aesthetic and the inter-connection between the topics. Knowledge or science development process that is not properly guided or fails to consider ethical issues will result in making it worthless. Therefore, this module also integrates lessons in understanding ethics in quantitative and qualitative research. This module is developed for post graduate students in higher education institutions, in particular UMP to produce scientists who are able to contribute their findings in science and technology significantly and ethically to the society as well as the civilization process of this country.

MODULE OUTCOMES

At the end of this module, user should be able to:

1. Explain the concept of philosophy
2. Summarize the concept of knowledge
3. Explain the key questions behind a philosophy
4. Demonstrate ability to consider ethical issues in research

MODULE SUBTOPICS

- TOPIC 1 INTRODUCTION
- TOPIC 2 THE REALITY OF EXISTENCE
- TOPIC 3 THE TRUTH AND THE EPISTEMOLOGY OF KNOWLEDGE
- TOPIC 4 GOOD OR BAD; AESTHETIC AND ETIQUETTE VALUE
- TOPIC 5 ETHICS IN RESEARCH
- CONCLUSION