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SCIENTIFIC WRITING (TECHNOLOGY)

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HAFIZOAH KASSIM

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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 discusses scientific writing covering what is scientific writing, and how to prepare, write and publish scientific papers. The module contains six topics namely Topic 1: Importance of Scientific Writing explains the needs and purpose of writing a scientific article in research and academic field; Section 2: Types of Scientific Writing discusses several common types of scientific papers; Section 3: Structure of a Good Scientific Manuscript outlines the attributes and characteristics of a good scientific manuscript; Section 4: Style of Language explains the use of correct and appropriate English language expressions and structures in writing scientific papers; Section 5: Ethics in Scientific Writing reflects the common ethical issues in writing scientific papers, and Section 6: Getting the Scientific Manuscript Published highlights the proper process of journal submission and publication.

MODULE OUTCOME

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

- 1) Identify the needs and purpose of scientific writing,
- 2) Differentiate the types of scientific writing,
- 3) Outline the structure of a good scientific manuscript,
- 4) Apply correct and appropriate language discourse, functions and expressions in writing scientific manuscript,
- 5) Avoid unethical issues in preparing, writing and publishing scientific writing, and
- 6) Consider suitable factors in submitting the scientific manuscript and getting it published.

MODULE OUTLINE

- Topic 1: Importance of Scientific Writing
- Topic 2: Types of Scientific Writing
- Topic 3: Structure of a Good Scientific Manuscript
- Topic 4: Style of Language
- Topic 5: Ethics in Scientific Writing
- Topic 6: Getting the Scientific Manuscript Published
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