

**Research Methodology  
(UANP0010)  
Session I Semester 2017/2018  
Lecturer: Dr Rosmah Ali/ Associate Prof Dr Norzairah/ Dr Rasimah**

Day	LECTURE TOPIC	ASSIGNMENT
Module 1	<p><b>INTRODUCTION:</b></p> <ul style="list-style-type: none"> <li>- What is research?</li> <li>- Types of research</li> <li>- Purposes of research</li> <li>- Level of research; Master or PhD</li> <li>- Research Process</li> </ul> <p><b>PROBLEM FORMULATION AND OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>- What is research problem?</li> <li>- How to identify the research problem?</li> <li>- Steps in formulating research problem</li> <li>- Formulation of Problem Statement</li> <li>- Research objectives</li> <li>- Research questions and / or hypothesis</li> <li>- Expected outcome of research</li> </ul>	<p>Reading: Chapter 1 – 2</p> <p><b>Assignment #1 (10%): Formulating Problem Statement, Research Objectives, Research Questions</b></p> <p>Text: Page 109 - 116</p> <p><b>Bonus Assignment #1 (5%): Analyzing Problem Statements</b></p>
Module 2	<p><b>LITERATURE REVIEW</b></p> <ul style="list-style-type: none"> <li>- Rationale for literature review</li> <li>- Approaches of literature review</li> <li>- Framework of literature review</li> <li>- How to look for literature</li> <li>- Writing a critical review</li> <li>- Managing reading material</li> <li>- Making proper referencing</li> </ul> <p>UTM Thesis Format: Citation and References</p>	<p>Reading: Read Chapter 3 - 6</p> <p><b>Bonus Assignment #2 (5%): Conceptual Framework</b></p> <p><b>Bonus Assignment #3 (5%): Critical Literature Review</b></p>
Module 3	<p><b>RESEARCH METHODOLOGY AND DESIGN</b></p> <ul style="list-style-type: none"> <li>- Relationship between methodology &amp; design</li> <li>- Purpose of research design</li> <li>- Developing conceptual and operational framework</li> <li>- Types of research design (Theory building/ testing/extension; Inductive/deductive)</li> <li>- Steps in Research Design</li> </ul> <p><b>RESEARCH DESIGN...CONTD</b></p> <ul style="list-style-type: none"> <li>- Variables and measurement</li> <li>- Selecting and developing research instruments</li> <li>- Quantitative vs. qualitative research design</li> <li>- Mixed-method designs</li> <li>- Gantt Chart and milestone</li> </ul>	<p>Reading: Chapter 7 – 8 and 14</p> <p><b>Assignment #2 (10%):</b></p> <p><b>Text: Page 163 - 166</b></p>

Day	LECTURE TOPIC	ASSIGNMENT
Module 4	<p><b>DATA COLLECTION PROCEDURES (QUANTITATIVE / QUALITATIVE)</b></p> <ul style="list-style-type: none"> <li>- Types of data: <ul style="list-style-type: none"> <li>• primary vs secondary</li> <li>• qualitative and quantitative</li> </ul> </li> <li>- Sampling techniques and design</li> <li>- Methods and tools for data collection</li> </ul>	<p>Reading: Chapter 9 – 12</p> <p><b>Assignment #3 (10%): Choose 1</b></p> <p>Page 222 – 224</p> <p>OR page 250 - 252</p>
Module 5	<p><b>DATA ANALYSIS</b></p> <ul style="list-style-type: none"> <li>- Types of Data Analysis</li> <li>- Steps in Data Analysis</li> <li>- Connecting research objective to data analysis</li> <li>- Quantitative <ul style="list-style-type: none"> <li>• Statistical analysis</li> <li>• Descriptive and Inferential</li> <li>• Parametric/non-parametric analysis</li> <li>• Survey to experimentation and data analysis</li> </ul> </li> <li>- Qualitative analysis <ul style="list-style-type: none"> <li>• Thematic Analysis/ Grounded Theory</li> <li>• Data Coding</li> </ul> </li> </ul>	<p>Reading: Chapter 15 - 16</p>
Module 6	<p><b>RESEARCH PROPOSAL PREPARATION AND THESIS PREPARATION</b></p> <p>Research Proposal</p> <ul style="list-style-type: none"> <li>• What is Research Proposal</li> <li>• Types of Research Proposal</li> <li>• Component of Research Proposal</li> <li>• Assessment of Research Proposal</li> <li>• How to defend Research Proposal</li> </ul> <p>Thesis</p> <ul style="list-style-type: none"> <li>• Structure of thesis</li> <li>• Thesis format and styles</li> <li>• How to start writing a thesis</li> <li>• Planning and timeline for writing a thesis</li> <li>• Types of Thesis <ol style="list-style-type: none"> <li>i. Conventional</li> <li>ii. Compilation of paper <ul style="list-style-type: none"> <li>• Role of student and supervisor in thesis preparation</li> <li>• Submission regulation</li> <li>• Assessment of thesis</li> <li>• Viva Viva-voce Preparation of thesis</li> <li>• Ethics and codes of publications</li> <li>• Plagiarism</li> <li>• Referencing</li> </ul> </li> </ol> </li> </ul>	<p>Reading: Chapter 13</p> <p><b>RESEARCH MANAGEMENT</b></p> <ul style="list-style-type: none"> <li>- Roles of student and supervisor and examination panels (Chairman, Internal / External Examiner)</li> <li>- GOT</li> <li>- Rules and regulation</li> <li>- Ethics of doing research</li> <li>- Funding for research</li> <li>- Project planning</li> <li>- Safety and health issues</li> <li>- Managing conflict</li> <li>- Maximizing research output</li> <li>- <ol style="list-style-type: none"> <li>a. Intellectual Property</li> <li>b. Commercialization (Copyright, Patent)</li> <li>c. Publications</li> <li>d. Exhibition</li> </ol> </li> <li>- Examination process (VIVA-VOCE)</li> </ul>

Courtesy of Dr Rosmah Ali 2017