



**UNIVERSITI TEKNOLOGI MARA**

**BCT582: RESEARCH METHODOLOGY**

<b>Course Name (English)</b>	RESEARCH METHODOLOGY <b>APPROVED</b>
<b>Course Code</b>	BCT582
<b>MQF Credit</b>	2
<b>Course Description</b>	This course will provide an understanding of the research process, and the theory and methods used in the collection and analysis of data. The topics include issues to consider when choosing research subjects, indentifying research problems, problems formulation, preparin the research proposal, literature review, research methodology, research design, construct questionnaires, conducting surveys and production of the dissertation. The research methodology elaborates on data collection and various data analysis and interpretation techniques including statistical or non-statistical data analysis techniques.
<b>Transferable Skills</b>	<ol style="list-style-type: none"> <li>1. Gain "social responsibility" as shown in the written report and presentation of the interpretation of the research principles, methodology and process in the construction industry.</li> <li>2. Ability to emphasize "professionalism" through written report on the differences of the most appropriate data collection procedures in construction industry.</li> <li>3. Ability to emphasize "Information Management" through written report and presentation of the integration of various statistical techniques in data analysis for development of research proposal.</li> </ol>
<b>Teaching Methodologies</b>	Lectures, Computer Aided Learning
<b>CLO</b>	<p>CLO1 Demonstrate self-confidence and social responsibility related to research project.</p> <p>CLO2 Demonstrate the ethics and proffessionalism in data collection procedures</p> <p>CLO3 Integrate information management in the development of research proposal through research methodology</p>
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Introduction to Research</b>	
<ol style="list-style-type: none"> <li>1.1) Definition, concept and classifications</li> <li>1.2) Research philosophy and theory</li> <li>1.3) Research paradigm</li> </ol>	
<b>2. Research Process</b>	
<ol style="list-style-type: none"> <li>2.1) Developing research ideas</li> <li>2.2) Research topic and questions</li> <li>2.3) Source of research information</li> </ol>	
<b>3. Problem Statement, Objectives and Hypthesis</b>	
<ol style="list-style-type: none"> <li>3.1) Developing research problems statements</li> <li>3.2) Developing research objectives and hypothesis</li> <li>3.3) Scope of research</li> </ol>	
<b>4. Theory and Literature</b>	
<ol style="list-style-type: none"> <li>4.1) Literature review</li> <li>4.2) Assembling the theoretical framework</li> <li>4.3) Source of of research information, citing and referencing</li> </ol>	
<b>5. Writing the Research</b>	
<ol style="list-style-type: none"> <li>5.1) Research contents</li> <li>5.2) Research guidelines</li> <li>5.3) Limitation of research</li> </ol>	

<b>6. Research Methodology</b> 6.1) Choosing appropriate research methodology 6.2) Identifying research variables 6.3) Identifying research instrument
<b>7. Research Analysis</b> 7.1) Descriptive statistics and exploratory data analysis 7.2) Mean, median and mode 7.3) Frequency distribution, variance and standard deviation
<b>8. Information Technology</b> 8.1) Introduction to appropriate software for research writing and statistical analysis 8.2) Organising and presenting data
<b>9. Research Findings</b> 9.1) Results and inferences 9.2) Reporting the results of the research
<b>10. Research Conclusion and Recommendations</b> 10.1) Developing research conclusion 10.2) Presenting research recommendations
<b>11. Presentation</b> 11.1) Contents and presentation of the research 11.2) Developing well structured and appropriate writing style 11.3) Following standard format of referencing 11.4) Avoiding plagiarism

Assessment Breakdown		%	
Continuous Assessment		100.00%	

  

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment 1 - Individual	20%	CLO1
	Assignment	Assignment 2 - Individual	20%	CLO2
	Assignment	Assignment - Group	40%	CLO3
	Presentation	Presentation - Group	20%	CLO3

  

Reading List	Recommended Text
	<ul style="list-style-type: none"> <li>• Andrew Booth, Anthea Sutton &amp; Diana Papaioannou 2016, <i>Systematic Approaches to a Successful Literature Review</i>, Second edition Ed., SAGE Publications Ltd [ISBN: 9781473912458]</li> <li>• Bob Algozzine, Dawson Hancock 2016, <i>Doing Case Study Research</i>, Teachers College Press [ISBN: 9780807758137]</li> <li>• Charles Lipson, <i>How to Write a Ba Thesis, Second Edition</i>, University of Chicago Press [ISBN: 9780226430911]</li> <li>• Dr. Prakash Divakaran Achari 2014, <i>RESEARCH METHODOLOGY</i>, Horizon Books ( A Division of Ignited Minds Edutech P Ltd) [ISBN: 9789384044077]</li> <li>• Emily E. Anderson, Amy Corneli 2018, <i>100 Questions (and Answers) About Research Ethics</i>, SAGE Publications, Incorporated [ISBN: 9781506348704]</li> <li>• Meredith Zozus 2017, <i>The Data Book</i>, CRC Press [ISBN: 9781351647731]</li> <li>• Pagadala Suganda Devi 2017, <i>Research Methodology</i>, Notion Press [ISBN: 9781947752849]</li> <li>• Richard F. Fellows, Anita M. M. Liu 2015, <i>Research Methods for Construction</i>, John Wiley &amp; Sons [ISBN: 9781118915745]</li> <li>• David Gough, Sandy Oliver, James Thomas 2017, <i>An Introduction to Systematic Reviews</i>, Second edition Ed., SAGE Publications Ltd [ISBN: 9781473929432]</li> <li>• Peter Farrell 2016, <i>Writing Built Environment Dissertations and Projects</i>, John Wiley &amp; Sons [ISBN: 9781118921920]</li> <li>• Vian Ahmed, Alex Opoku, Zeeshan Aziz 2016, <i>Research Methodology in the Built Environment</i>, Routledge [ISBN: 9781317534242]</li> <li>• Abu Hassan Abu Bakar, Ruhizal Roosli, Ernawati Mustafa Kamal, Zul Zakiyuddin Ahmad Rashid, <i>A Complete Guide to Academic Research In Built Environment and Engineering (Penerbit USM)</i>, Penerbit USM [ISBN: 9789674612535]</li> <li>• Elzbieta Danuta Niezabitowska 2018, <i>Research Methods and Techniques in Architecture</i>, Routledge [ISBN: 9781138055988]</li> <li>• Raymond Lucas 2016, <i>Research Methods for Architecture</i>, Laurence King Publishing [ISBN: 9781780677538]</li> </ul>
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources