



## UNIVERSITI TEKNOLOGI MARA

### DSC790: DATA SCIENCE PROJECT

<b>Course Name (English)</b>	DATA SCIENCE PROJECT <b>APPROVED</b>
<b>Course Code</b>	DSC790
<b>MQF Credit</b>	9
<b>Course Description</b>	In this course, students will investigate, analyze and provide data science solutions to real-world analytic problems in various areas. Students will develop their problem solving and analytic skills and have an appreciation of real-world analytics problems, as well as be able to offer practical and sound solutions. Students are expected to conduct research based on the principles of good professional ethics in conducting research in related area of data science. At the end of course, students will present their project's findings and submit a project report.
<b>Transferable Skills</b>	Problem solving skills developed through projects, and presentations
<b>Teaching Methodologies</b>	Discussion, Supervision
<b>CLO</b>	CLO1 Build new data science methods or technology to solve industry problems or for new application CLO2 Assess the proposed research data science methods or technology to solve industry problems or for new application CLO3 Complete a project report with good ethics CLO4 Present and defend research project in a professional way
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Problem Background</b> 1.1) Problem Formulation 1.2) Problem Background 1.3) Problem Statement 1.4) Research Questions 1.5) Research Objectives 1.6) Research Scope 1.7) Research Significance	
<b>2. Literature Review</b> 2.1) Research Framework/Model 2.2) Research Design	
<b>3. Research Methodology</b> 3.1) Development Methods 3.2) Data Collection Methods 3.3) Data Analysis Methods 3.4) Testing Method	
<b>4. Thesis Writing</b> 4.1) Structuring Your Contents 4.2) Checking Your Grammar 4.3) Checking for Plagiarism 4.4) Formatting Your Report	

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Final Project	Final Report	70%	CLO3
	Presentation	Progress report	10%	CLO1
	Presentation	Present Final Project	10%	CLO4
	Written Report	Progress Report	10%	CLO2

Reading List	Recommended Text	<ul style="list-style-type: none"> <li>• Dawson, C. 2009, <i>Projects in Computing and Information Systems: A Student's Guide</i>, Pearson Education Canada</li> <li>• Germano, W. 2013, <i>From Dissertation to Book</i>, University Of Chicago Press</li> </ul>
	Reference Book Resources	<ul style="list-style-type: none"> <li>• Belcher, W. L. 2009, <i>Writing Your Journal Article in Twelve Weeks: A Guide to Academic Publishing Success</i>, 1st edition Ed. [ISBN: 978-14129570]</li> <li>• Cresswell, J. W. 2014, <i>Research Design: Qualitative, Quantitative, and Mixed Methods Approaches</i>, 4th edition Ed., Sage Publication Inc [ISBN: 978-145222610]</li> <li>• Fink, A. G. 2013, <i>Conducting Research Literature Reviews: From the Internet to Paper</i>, 4th Edition Ed., SAGE Publications, Inc [ISBN: 978-145225949]</li> <li>• Goodson, P. 2012, <i>Becoming an Academic Writer: 50 Exercises for Paced, Productive, and Powerful Writing</i>, 1st Edition Ed., SAGE Publications, Inc [ISBN: 978-145220386]</li> <li>• Graustein, J. S. 2014, <i>How to Write an Exceptional Thesis Or Dissertation: A Step-by-step Guide from Proposal to Successful Defense</i>, Atlantic Publishing Company</li> <li>• Joyner, R. L., Rouse, W. A. &amp; Glatthorn, A. A. 2012, <i>Writing the Winning Thesis or Dissertation: A Step-by-Step Guide</i>, Corwin.</li> <li>• Paulus, T., Lester, J. N. &amp; Dempster, P. 2013, <i>igital Tools for Qualitative Research</i>, 1st Edition Ed., SAGE Publications Ltd. [ISBN: 978-144625607]</li> <li>• Ridley, D. 2012, <i>The Literature Review: A Step-by-Step Guide for Students</i>, 1st Edition Ed., SAGE Publications Ltd. [ISBN: 978-141293425]</li> <li>• Rocco, T. S. &amp; Hatcher, T. 2011, <i>The Handbook of Scholarly Writing and Publishing</i>, Jossey-Bass</li> <li>• Swales, J. M. 2012, <i>Academic Writing for Graduate Students, 3rd Edition: Essential Tasks and Skills</i>, University of Michigan Press/ELT</li> <li>• Turabian, K. L. 2013, <i>A Manual for Writers of Research Papers, Theses, and Dissertations</i>, University Of Chicago Press</li> <li>• Wallace, M. &amp; Wray, A. 2011, <i>Critical Reading and Writing for Postgraduates</i>, 2nd Edition Ed., SAGE Publications Ltd [ISBN: 978-184920562]</li> </ul>
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	