

Research Methodology (MSU4113)

Course Code	MSU4113								
Course Name	RESEARCH METHODOLOGY								
Credit Hour	3								
Prerequisite Course	None								
Contact Hours	Lecture:	3	units	(3 hour(s) per week)					
	Tutorial:	0	unit	(0 hour(s) per week)					
	Laboratory:	0	unit	(0 hour(s) per week)					
Rationale for the Inclusion	To equip students with basic knowledge of conducting the research particularly in the field of industrial applied mathematics.								
Course Objective	This course aims to expose students how to prepare, present a research proposal and conduct the research accordingly.								
Course Synopsis	This course provides an introduction to a variety of research methods used in industrial applied mathematics field. Students are taught on how to conduct research which includes the methodology, literature reviews, sampling, data collection, analysis, and interpretation of results using mathematical approaches and tools to solve applied problems. At the end of this course, students are required to prepare and present a research proposal.								
Program Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	/	/		/				/	
Soft Skills	Code		CTPS	CS	TS	LL	ES	EM	LS
	KIM		1	1				2	
Course Outcomes	By the end of semester, students should be able to:								
	CO1	Construct a problem statement and research objectives.							
	CO2	Organise the research proposal by including the research elements accordingly.							
	CO3	Practise ethical and professional values in proposal report and presentation.							
	CO4	Organise ideas coherently and structured manner.							
Assessment Methods	Methods		Weighting		CO1	CO2	CO3	CO4	
	Report		80%		/	/			
	Presentation		20%		/		/	/	
	Total		100%						

Learning References	1	Kate L. Turabian, Wayne C. Booth, Gregory G. Colomb and Joseph M. Williams, " A Manual for Writers of Research Papers, Theses, and Dissertations, Chicago Style for Students and Researchers (Chicago Guides to Writing, Editing, and Publishing)", University Of Chicago Press, 2013 (Main Reference)
	2	Randy L. Joyner, William A. (Arthur) Rouse and Allan A. Glatthorn , "Writing the winning thesis or dissertation: A step by step guide, 3rd edition", Corwin, 2012
	3	Uwe Flick, "Introducing Research Methodology: A Beginner's Guide to Doing a Research Project", SAGE Publication, 2013
	4	Centre of Graduate Studies UMP. UMP Thesis Guidelines, 2009 (latest version)
	5	C. Robson.Real World Research. Wiley-Blackwell, 2011.