

COURSE OUTLINE

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Course Code: UANP0010 Course Name: Research Methodology Total Contact Hours: 42	Semester: 1 Academic Session: 2017/2018

Lecturer : Assoc. Prof. Dr. Nor Zairah binti Ab. Rahim,
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Synopsis : This course discusses the principles of research methodology which include a general introduction to postgraduate research, its methodologies and organization. It is designed to support postgraduate students in developing their research proposal and to guide students through a range of issues and considerations which should inform their general approach to research. Students will learn to plan, organize and conduct their research independently, as well as to communicate their findings.

LEARNING OUTCOMES

By the end of the course, students should be able to:

No.	Course Learning Outcome	Programme Outcome	Taxonomies (C, P, A)	Weightage (%)	Assessment Methods
CO1	Formulate the research problem, objectives, questions and hypothesis.	PO1	C5	10	A = 10%
CO2	Organize and critique relevant literature using research management tool.	PO2	C5 CTPS1-3	10	A = 10%
CO3	Select the research design.	PO2	C5	10	A = 10% A = Assignment
CO4	Prepare the research proposal.	PO6	C6 LL1-LL2	40	PR= 40% PR = Project Report
CO5	Defend the research proposal.	PO5	A4 CS1 - CS8	30	Pr = 25%; CP = 5% Pr = Presentation CP = Participation

Prepared by: Dr Rosmah Ali Name: Signature: Date:	Certified by: (Program Coordinator) Name: Dr. Nilam Nur Signature: Date:
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STUDENT LEARNING TIME (SLT)

Teaching and Learning Activities	Student Learning Time (hours)
1. Face-to-Face Learning	
a. Lecturer-Centered Learning	
i. Lecture	21
b. Student-Centered Learning (SCL)	
i. Laboratory/Tutorial	
ii. Student-centered learning activities- Active Learning, Project Based Learning	21
2. Self-Directed Learning	
a. Non-face-to-face learning or student-centered learning (SCL) such as manual, assignment, module, etc.	29
b. NALI/MOOCs/e-Learning	14
c. Revision	14
d. Assessment Preparations	10
3. Formal Assessment	
a. Continuous Assessment	10
b. Presentation	1
Total (SLT)	120

TEACHING METHODOLOGY

PO	SCHOLARSHIP OF KNOWLEDGE	LEARNING ENVIRONMENT	TEACHING AND LEARNING METHODS	ASSESSMENT CRITERIA
PO1 Advanced Knowledge	<ul style="list-style-type: none"> • Ability to demonstrate higher order thinking skill and view things in broader perspective 	<ul style="list-style-type: none"> • Involve discussions • Critique ideas • Create hypothesis • Seek opinion from others 	<ul style="list-style-type: none"> • Knowledge sharing • Cooperative learning 	<ul style="list-style-type: none"> • Significance of Research Problem to Current Issues • Clarity of Research Objectives, Questions and Hypothesis

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PO2 Research Skills	<ul style="list-style-type: none"> • Ability to apply appropriate research methodologies, techniques and tools within the discipline; • Ability to integrate existing and new ideas into established knowledge 	<ul style="list-style-type: none"> • Evaluate existing solutions • Propose better solutions 	<ul style="list-style-type: none"> • Paper Critique • Guided Lectures • Group Discussion 	<ul style="list-style-type: none"> • Comprehensiveness of Literature Review • Critical Literature Review
PO5 Communication	<ul style="list-style-type: none"> • Ability to confidently, effectively and coherently communicate information and knowledge through listening, speaking, visualizing and writing to acceptable standard; • Ability to acquire, organize, evaluate and present ideas using appropriate technology 	<ul style="list-style-type: none"> • Present ideas in structured form • Defend idea 	<ul style="list-style-type: none"> • Project based learning 	<ul style="list-style-type: none"> • Class Participation • Oral Presentation • Effective Presentation • Academic Writing
PO6 Life-long Learning	<ul style="list-style-type: none"> • Ability to conduct independent work or studies. • Possess strong enthusiasm and commitment to continuously acquire new knowledge and skills. 	<ul style="list-style-type: none"> • Independent and interdependent works • Involve the use of current e-learning technology • Authentic 	<ul style="list-style-type: none"> • Guided Lectures • Independent work • Knowledge sharing 	<ul style="list-style-type: none"> • Article Critique • Project Report • Academic publications

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WEEKLY SCHEDULE

- Week 1-2 : Introduction, Types of Research, Research Process
- What is research?
 - Types of research
 - Purposes of research
 - Research Process
- Problem Formulation and Objectives
- What is research problem?
 - How to identify the research problem?
 - Steps in formulating research problem
 - Formulation of Problem Statement
 - Research objectives
 - Research questions and / or hypothesis
 - Expected outcome of research
- Assignment 1(individual)*
- Week 3-4 : Literature Review
- Rationale for literature review
 - Systematic literature review
 - Framework of literature review
 - How to look for literature
 - Writing a critical review
 - Managing reading material
 - Making proper referencing
 - UTM Thesis Format: Citation and References
- Assignment 2 (Individual)*
- Week 5-6 : Research Methodology and Design
- Relationship between methodology & design
 - Purpose of research design
 - Developing conceptual and operational framework
 - Types of research design (Theory building/ testing/extension; Inductive/deductive)
 - Steps in Research Design
 - Variables and measurement
 - Selecting and developing research instruments
 - Quantitative vs. qualitative research design
 - Mixed-method designs
 - Gantt Chart and milestone
- Assignment 3 (Individual)*

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Week 7	:	Data Collection Procedures (Quantitative / Qualitative) <ul style="list-style-type: none"> • Types of data: • primary vs secondary • qualitative and quantitative • Sampling techniques and design • Methods and tools for data collection
Week 8	:	Semester Break
Week 9-10	:	Data Analysis <ul style="list-style-type: none"> • Types of Data Analysis • Steps in Data Analysis • Connecting research objective to data analysis • Statistical analysis • Descriptive and Inferential • Parametric/non-parametric analysis • Survey to experimentation and data analysis • Thematic Analysis/ Grounded Theory • Data Coding
Week 11-12		Research Proposal Preparation and Thesis Preparation <p style="margin-left: 20px;">Research Proposal</p> <ul style="list-style-type: none"> • What is Research Proposal • Types of Research Proposal • Component of Research Proposal • Assessment of Research Proposal • How to defend Research Proposal <p style="margin-left: 20px;">Thesis</p> <ul style="list-style-type: none"> • Structure of thesis • Thesis format and styles • How to start writing a thesis • Planning and timeline for writing a thesis • Types of Thesis <ul style="list-style-type: none"> ○ Conventional ○ Compilation of paper • Role of student and supervisor in thesis preparation • Submission regulation • Assessment of thesis • Viva-voce Preparation of thesis • Ethics and codes of Publication • Plagiarism • Referencing

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Technical Report and Publication (TRP)

- What is TRP?
- Types of TRP
- Component of TRP

- Week 13-14 : Research Management
- Roles of student and supervisor and examination panels (Chairman, Internal / External Examiner)
 - GOT
 - Rules and regulation
 - Ethics of doing research
 - Funding for research
 - Project planning
 - Safety and health issues
 - Managing conflict
 - Maximizing your research output:
 - Intellectual Property
 - Commercialization (Copyright, Patent)
 - Publications
 - Exhibition
 - Examination process (VIVA-VOCE)
 - Viva slides preparation

Week 15 : Proposal Presentation

Week 16 : Study Break

REFERENCES :

1. Ranjit Kumar, Research Methodology: A Step-by-Step Guide for Beginners. Sage Publications Ltd; Third Edition, 2011. ISBN 978-1-84920-300-5, ISBN 978-1-84920-301-2 (pbk).
2. Larry B. Christensen, R. Burke Johnson and Lisa A. Turner, Research Methods, Design, and Analysis. Pearson; 12th edition, 2013. ISBN-13: 978-0205961252
3. John W. Creswell. A Concise Introduction to Mixed Methods Research. Sage Publications Inc. 2015. ISBN-13: 978-1483359045
4. Wayne C. Booth, Gregory G. Colomb and Joseph M. Williams. The Craft of Research. University of Chicago Press; Third Edition, 2008. ISBN-13: 978-0226065663
5. Yvonne N. Bui. How to Write a Master's Thesis. Sage Publications Inc. Second Edition, 2014. ISBN-13: 978-1452203515

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GRADING:

(Provide details on the allocation of marks and the time schedule for all quizzes, tests, assignments, etc.)

	Assesment	Number	% each	% total
1.	Assignment (Individual)	3	10	30
2.	Research Proposal	1	40	40
3.	Proposal Presentation	1	25	25
4.	Class & e-Forum Participation	1	5	5
	Total			100

To obtain a **passing grade**, a student must fulfill the following conditions:

1. Achieve a minimum total course mark of 60; **AND**
2. Attend 80% of meetings inclusive of medical leave. Thus, a student can only be absent once within the semester, otherwise it would be advisable for the student to withdraw from the course. A medical certificate must be submitted **within one week** of the date of absence.