UNIVERSITI TEKNOLOGI MARA

ADS651: FUNDAMENTALS OF RESEARCH AND DATA ANALYSIS

Course Name (English)	FUNDAMENTALS OF RESEARCH AND DATA ANALYSIS APPROVED
Course Code	ADS651
MQF Credit	3
Course Description	The course focuses on the fundamental approach to empirical research. The formulation of a research proposal starts from the generation of an idea to the eventual write up of the proposal. The course covers research designs, sampling strategies, sample size selection, measurement issues, developing conceptual framework and hypothesis. Basic descriptive and inferential statistics will be covered with the use of the SPSS software package.
Transferable Skills	a) Tech savy b) Independent and Critical Thinker c) Solution Provider
Teaching Methodologies	Lectures, Tutorial, Project-based Learning
CLO	CLO1 Apply methodological assessment using scientific approaches on corporate administration and governance issues; CLO2 Demonstrate effective leadership skills in developing research proposal to address corporate administration and governance issues; CLO3 Demonstrate managerial skills in identifying appropriate statistical technique for corporate administration and governance issues.
Pre-Requisite Courses	No course recommendations

Topics
1. Types of Research 1.1) Qualitative research 1.2) Quantitative research
2. The Research Objective 2.1) Setting objectives and questions 2.2) Interconnections between research objectives and conceptual framework
3. The Literature Review 3.1) What is it and why? 3.2) Metric method of literature review 3.3) Tracking the reviews
4. Conceptual/Research/Theoretical Framework 4.1) Concepts, constructs, theories and models 4.2) Theoretical framework 4.3) Types of variables; independent, dependent, moderating and mediating
5. Research Designs 5.1) Sample surveys 5.2) Cross sectional study 5.3) Longitudinal study 5.4) Single case study
6. Sampling 6.1) Why sample? 6.2) Sampling frame 6.3) Sampling methods 6.4) Sample size

7. Measurement/Instrumentation 7.1) Types of data; nominal, ordinal, interval and ratio 7.2) Developing measures/instruments 7.3) Scaling techniques
8. Data Collection 8.1) Types of Observation 8.2) Types of Interviews 8.3) Questionnaire; telephone, mailed or directly administrated
9. Data Analysis 9.1) Data entry 9.2) Data cleaning 9.3) Descriptive statistics
10. Basic Inferential & Non-inferential Statistics 10.1) Correlations 10.2) T-test 10.3) Chi-square 10.4) Cross-tabulations
11. Hypothesis Testing 11.1) Significance levels 11.2) Effect sizes
12. Analyzing Qualitative Data 12.1) Establishing decision rules 12.2) Classification of data 12.3) Inter-rater agreement 12.4) Data reduction 12.5) Data display 12.6) Drawing conclusions 12.7) Reliability and validity in qualitative research

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Lab Exercise	Tutorial SPSS	30%	CLO1
Test	Test	20%	CLO1
Written Report	Research Proposal	20%	CLO3
Written Report	Research Proposal	30%	CLO2

Reading List

Recommended Text

- **Hazman Shah Abdullah & Yarina Ahmad 2016, *Research Method Guide; Bachelor of Administrative Science***
- **Coakes, S. J 2013, *SPSS version 20.0 for Windows, Analysis without Anguish*, John Wiley & Sons Australia, Ltd.**

Reference Book Resources

- **Merriam, B. S, and Tisdell, J. Elizabeth 2015, *Qualitative Research: A Guide to Design and Implementation*, John Wiley & Sons**
- **Miles, M.B, Huberman, M and Saldana, J. 2013, *litative Data Analysis: A Methods Sourcebook*, Sage Publication**
- **Sekaran, U. & Bougie, R. 2013, *Research methods for business. A skill building approach*, Prentice-Hall**
- **Tachachnik and Fidel 2013, *Multivariate statistics*, New York: The Free Press**

Article/Paper List: This Course does not have any article/paper resources

Other References: This Course does not have any other resources