

## Course Syllabus

offered by Department of Media and Communication  
with effect from Semester B 2016/17

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### Part I Course Overview

**Course Title:** Multivariate Analysis in Communication Research

**Course Code:** COM8007

**Course Duration:** One semester

**Credit Units:** 3

**Level:** R8

**Proposed Area:**  Arts and Humanities  
*(for GE courses only)*  Study of Societies, Social and Business Organisations  
 Science and Technology

**Medium of Instruction:** English

**Medium of Assessment:** English

**Prerequisites:** None  
*(Course Code and Title)*

**Precursors:** None  
*(Course Code and Title)*

**Equivalent Courses:** None  
*(Course Code and Title)*

**Exclusive Courses:** None  
*(Course Code and Title)*

## Part II Course Details

### 1. Abstract

The course aims to:

provide post-graduate research students with a working knowledge of the assumptions, concepts, and theories underlying the most frequently used multivariate analysis techniques in quantitative social and behavioural sciences. These techniques include, but are not limited to, multiple regression, logistic regression, exploratory and confirmatory factor analysis, path analysis, structural equation modelling (SEM), and multilevel analysis. The selection of specific topics may be tailored to students' research needs each semester. The focus will be on practical issues such as selecting the appropriate analysis, preparing data for analysis in the popular statistical packages (e.g., SPSS and AMOS), interpreting output, and presenting results of a complex nature.

The course addresses both the underlying mathematics and problems of applications. As such, a reasonable level of competence in both statistics and mathematics is needed.

### 2. Course Intended Learning Outcomes (CILOs)

No.	CILOs <sup>#</sup>	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	<b>Describe</b> the basic assumptions, concepts, theories, and applications of multivariate statistical procedures most commonly used in social and behavioural research	20%		✓	✓
2.	<b>Identify</b> and <b>select</b> the appropriate multivariate techniques to address the research question through creative research design	20%	✓	✓	✓
3.	<b>Apply</b> appropriate multivariate statistical techniques to their own research problem by using SPSS, AMOS, and other software packages	20%		✓	✓
4.	<b>Discover</b> and correctly <b>interpret</b> new knowledge from various multivariate techniques and <b>report</b> the results according to APA publication guidelines	20%	✓	✓	✓
5.	Critically <b>analyze</b> and <b>evaluate</b> articles in the literature reporting results from multivariate analyses	20%	✓	✓	✓
		100%			

### 3. Teaching and Learning Activities (TLAs)

TLA	Brief Description	CILO No.					Hours/week(if applicable)
		1	2	3	4	5	
Lecture	Students are required to attend lecture regularly and on time every week.	✓	✓				NA
Lab Tutorial–	Weekly tutorials are conducted to give students a chance to internalize course material through demonstrations and hands-on exercises	✓	✓	✓	✓		NA
Homework assignments	Students are required to use SPSS to perform an assigned multivariate technique on a chosen dataset, and translating the output into coherent narratives, tables, and figures in APA format.	✓	✓		✓		NA
Evaluation and critique of homework assignments	For each homework assignment, students are asked to evaluate and critically review the work of a randomly chosen classmate.	✓	✓	✓	✓	✓	NA

### 4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.					Weighting*	Remarks
	1	2	3	4	5		
Continuous Assessment: <u>100</u> %							
Lecture Participation	✓	✓	✓	✓	✓	10%	
Tutorial & exercises	✓	✓	✓	✓	✓	25%	
Homework Assignments	✓	✓	✓	✓		40%	
Assignment Critique				✓	✓	25%	
Examination: <u>NA</u>						100%	

**5. Assessment Rubrics**

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Adequate (C+, C, C-)	Marginal (D)	Failure (F)
Assignments	Quality of assignment	High	Significant	Moderate	Basic	Not even reaching marginal levels
Final project	Quality of final project	High	Significant	Moderate	Basic	Not even reaching marginal levels

## Part III Other Information

### 1. Keyword Syllabus

Multivariate analysis, ANCOVA, MANOVA, MANCOVA, factor analysis, multiple regression, discriminant analysis, logistic regression, path analysis, structural equations modelling

### 2. Reading List

#### 2.1 Compulsory Readings

1.	Tabachnick, B. J. & Fidell, L. S. (2001). Using Multivariate Statistics. (4th ed.). New York: Harper Collins.
2.	Cohen, J., Cohen, P., West, S., & Aiken, L. (2002). Applied Multiple Regression/Correlation for Behavioral Sciences. ( 3rd ed.). New York: Lawrence Erlbaum Associates.
3.	Berry, W.D. (1993). Understanding Regression Assumptions. Sage.
4.	Raudenbush, S. W. & Anthony S.B (2002). Hierarchical Linear Models: Applications and Data Analysis Methods. Sage.
5.	Kline, R. B. (2005). Principles and Practice of Structural Equation Modeling. Guilford.
6.	Enders, W. (2004). Applied Econometric Time Series. Wiley.