## BAM 1206 BUSINESS QUANTITATIVE TECHNIQUES (4 CU)

**Course Description:**

The course is designed to provide students with the ability to understand basic concepts of quantitative methods applicable to different business settings. Students will also be taught on how to use simple mathematical models such as linear programming to solve business problems.

**Course Objectives**

The course will help the students to achieve the following objectives:

1. To improve the quantitative reasoning of the students.
2. To equip the students with the quantitative techniques used in decision making
3. To appreciate the application of quantitative techniques to the solution of business problems.

**Learning Outcomes**

Students should be able to

* Apply different quantitative models in solving business problems
* Describe mathematical relations and functions used in business settings

**Intellectual, practical and transferable skills**

* Problem solving skills
* Analytical skills
* Team work
* Communication

**Teaching and Learning Patterns**

* Use of Practical examples
* class discussions
* Group presentations

**Indicative Content**

The fundamentals of BQT: Linear, quadratic and simultaneous equations. Functions and graphs, cost, revenue and profit functions. Fundamentals of differentiation and its use in business.The application of these fundamentals to personal business, management, marketing operations management and finance issues. Introduction to statistical methods: Survey of principles of data collection & classification, summarizations and visual display of data. Principles of data analysis & measurement and their applications to management problems. Elementary probability and statistical concepts: Probability theory, probability distributions, sampling distribution, statistical inference hypothesis testing. Business decision support techniques: Linear programming, Assignment problems, Network analysis, Transportation problems and Decision theory. Regression and forecasting models in business: Regression line, correlation analysis, time series analysis and forecasting. Index numbers: Computation and types of index numbers, published indices.

**Assessment Method**

The assessment method is structured to include coursework and final examination. Coursework consists of assignments, presentations and tests.

Each course in the programme shall be assessed on the basis course work and final examination represented as

Course work assessment 30%

Final Examination 70%

100%

The minimum mark required to pass is 50%, this includes course work and final examination. Each course in the programme is allowed a maximum of three hours for final examination

**Indicative Sources**

1. C. R. Kotheri (2005): Quantitative Techniques.

2. Edwin Manfield (1990): Statistics for business and economics.

3. Laurence D.Hoffmann (2004) Calculus for business, economics & the social & the life

sciences.

4. Harold D Bierman, Charles P Bonini, Warren H. Hausman( 1997) Quantitative

analysis for business decisions.

5. Thomas H. Wonnacott and Ronald J. Wonnacott (1990) Introductory statistics for

business and economics.

6. Hamdy A. Taha (2006): Operations research- an introduction.

7. Gilbert R. Gordon and Israel Pressman (1983): Quantitative decision making for

business.

8. N.D. Vohra (2008): Quantitative techniques in management.

9. Barry Render,RalphM.Stair and Michael E. Hanna (2009): Quantitative analysis for

management.

10. T. Lucy (2002): Quantitative techniques.