



**UNIVERSITY OF JOS**  
**Faculty of Management Sciences**  
**Department of Business Administration**

**Course Syllabus (BUS 111: Business Mathematics 1)**

**General Information**

COURSE LECTURER: **Samuel O. OLUTUASE**  
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**Course Description**

This is a three-credit unit core course that aims at introducing students of Business to the fundamental mathematical concepts and models with applicable relevance to business practice i.e. business decision-making. BUS 111 covers: Mathematics and Symbolic Logic; Inductive and Deductive Systems of reasoning; theory of set; Matrix and Determinants; Discrete and Continuous variables; Relations and functions; functions and Simple sequences and series.

**Learning Outcomes**

Upon successful completion of this course, students would be able to:

- Apply the principles of logical reasoning to solving decision making problems
- Utilise Matrix operations in solving practical business problems
- Apply functions to solving business and economic problems
- Use the theoretical concepts of set and series to solving simple real life business cases

**Course materials**

This course is practical-oriented and highly interactive. Owning or gaining access to a desktop, laptop or palm-top will give a student lot of advantage. Your system should however run minimally on Windows vista and be equipped with Microsoft office suite, Adobe Acrobat reader, web browser (Internet explorer, Chrome, etc), internet access.

**Communication**

Communication is critical to learning. Students are therefore encouraged to contact the course lecturer via email or blog site with any questions or concerns. Students will also have the opportunity to discuss course related issues in the classroom and discussion forum on samolutuase.com. The instructor will post announcements on the course homepage as well as send periodic emails. You are therefore advised to check course site and your inbox regularly.

**Evaluation**

The course evaluation is structured as follows:

<u>NO.</u>	<u>ITEMS</u>	<u>WEIGHT</u>
1.	Quiz 1	15%
2.	Quiz 2	15%
3.	Semester exam	70%
	<b>TOTAL</b>	<b>100%</b>

**Grading**

<u>SCORE RANGE</u>	<u>GRADE</u>	<u>GRADE POINT</u>	<u>REMARK</u>
70 – 100	A	5	PASS
60 – 69	B	4	PASS
50 – 59	C	3	PASS
45 – 49	D	2	PASS
40 – 44	E	1	PASS
00 – 39	F	0	FAIL

**Methodology**

Students are required to attend classes punctually and regularly. They are also required to participate in all course activities. While it is highly encouraged to ask questions in the class for the purpose of understanding, students will be required to do all exercises given as well as other relevant exercises to further deepen understanding of each topic, concept and principle. Collaboration and teamplaying is very encouraged.



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Course Outline	TOPICS	DETAILS
	<b>Topic 1: Logic and Reasoning</b>	Meaning, Statement, Connectives, Operations, Truth values and Tables, Deductive and Inductive Reasoning, Laws, Application
	<b>Topic 2: Set Theory</b>	Description, elements, notation, types, operations, Venn diagrams, laws
	<b>Topic 3: Matrices</b>	Definition of a matrix, types, operations, determinants of order one, two and three, adjoint of a matrix, application
	<b>Topic 4: Relations and Functions</b>	Description of relations and functions, types of functions, linear and quadratic, application to business
	<b>Topic 5: Sequences and Series</b>	Meaning of sequences and series, AP series, GP series, sum of series, application to business problems
<b>Reading List</b>	Qazi, Z., Vijay, K. K., & Bhambri, S. K. (2009). Business Mathematics, 2nd Edition. New Delhi, India: Vikas Publishing House PVT LTD	