



SAMBALPUR



UNIVERSITY

EC-41
Acd-I.

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No. 252 /PGS

Date.06.12.2023

To

The Controller of Examinations
Sambalpur University

Subject: Submission of syllabus for MOOC course's alternative.
Ref: Your notification no.6043/Acd-I, Dt.18.10.2023.

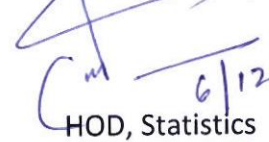
Sir,

With reference to your letter on the subject cited above, I am sending herewith the syllabus for MOOC course's alternative of the Department of Statistics.

This is for your kind information and necessary action at your end.

Encl: As above.

Yours faithfully


6/12/2023

HOD, Statistics

Head
P.G. Department of Statistics
Sambalpur University
Jyotivihar, Odisha

Course Code: MSC- 517 (3CH)

Course Name: MATHEMATICAL METHODS &
BASICS OF COMPUTER (MOOC Course)

Prerequisite: None

Co requisite: Compulsory

Programme Education Objectives

PEO1 Understand the nature and basic concepts of MOOC Course

Relating to the MA/M.Sc. Degree in Statistics

PEO2 Analyse the relationships among different concepts

PEO3 Perform procedures as laid down in the areas of study

PEO4 Apply the Basic Concepts learned to execute them

UNIT-I

Permutation, combination, Binominal theorem for positive Integral Index.

UNIT-II

Logarithm Series, Exponential Series, Determinant.

UNIT-III

Matrices; Type of matrices (Orthogonal matrix and idempotent matrix) Operation on matrices (including inverse), Singular and non-singular Matrices, Rank of a matrix, Row rank, Column Rank.

UNIT-IV

Introduction of World of Computer, The system unit, Processing and memory system unit. CPU Storage- storage system, Magnetic and Optical disks, Input and Output, Keyboard, Pointing devices Scanners, Display devices, Operating System.

Course Outcomes

CO-1 Remember and understand the basic concepts/Principles of a **Mathematical Methods & Basics of Computer.**

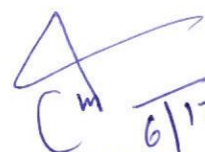
CO-2 Analyse the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/create the Project or field assignment as per the knowledge gained in the course

Suggested Readings:

1. Intermediate Algebra: Dr. Ghanashyam Samal
2. A text book of matrices: Shanti Narayan.
3. Fundamentals of Computers: Morles and Parker.
4. Computer Fundamentals and office: Sanjay Saxena.


6/12/2023
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