



**NATIONAL BOARD FOR TECHNICAL
EDUCATION (NBTE)**

COURSE MATERIAL

FOR

**Course Code & Title: COM 114 STATISTICS FOR
COMPUTING**

**Programme: NATIONAL DIPLOMA IN
COMPUTER SCIENCE**

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First published 2021 in Nigeria.

ISBN: XXXXXXXXXXXX

Published and printed in Nigeria by:
Gamji Press & Publishers Ltd,
Kaduna, Nigeria.

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COURSE STUDY GUIDE

i. Course Information

Course Code: **COM 114**

Course Title: **Statistics for Computing**

Credit Units: 2 Credit Units

Year of Study: one

Semester: First

ii Course Introduction and Description

Introduction to Statistics for computing class introduces you to the meaning, definition, principles and evolution of Statistics concepts as well as their applications to all aspects of computer process.

Statistics is the lingua franca of modern science, including computer. It is also of ever greater importance in daily life, as data of all sorts are now ubiquitous. Statistical literacy is hence of great value, both for academic purposes and for our daily routines. This course offers a solid foundation in statistical reasoning and its uses in the quantitative computing.

Learning statistics can be a daunting experience. There is a plethora of statistical concepts to master and many of them come with a hefty dose of mathematical notation. The goal of the present course is to develop a clear path through the conceptual forest and to explain each concept both in its narrow meaning and as a part of the larger enterprise of statistical reasoning. Mathematical skills are not taken for granted; instead, we shall review the necessary mathematical tools so that you will not get stuck on this aspect.

The field of statistics is divided into descriptive and inferential statistics, with probability theory forming a bridge between the two. In this course, we start out descriptively, by considering different ways in which we can learn from data. We then delve into the subject of probability theory, to end with a discussion of statistical inference. The emphasis in this part is on learning how to draw conclusions about populations with the help of data from a sample. By the end of this course, you should have a good feeling for descriptive statistics, statistical inference, and probability theory. You should also understand the interplay of these elements in the broader enterprise of statistical reasoning. And you should feel more comfortable reading about statistics and using them in your own work.

iii Course Prerequisite:

Student should have general knowledge on O, level Mathematics with not less than credit in WAEC/NECO

iv Course Books

Aliyu Usman (2011) Statistical Methods for Biometric and Medical Research. Millenium Printing and Publishing Company Limited, Kaduna.

Abdulazeez S.A (2016): Fundamental of Statistics. Eskodhab Ventures, Kaduna, Nigeria

Howard M. Reid (2013): Introduction to Statistics: Fundamental Concepts and Procedures of Data Analysis.

Arthur Wayne Hafner (2007): Descriptive Statistics Techniques For Librarians

v Course Outcomes

After studying this course, you should be able to:

1. Explain the meaning, uses, types, scope and evolution of Statistics,
2. Understand the procedures for collection of statistical data
3. Describe methods of data compilation
4. Discuss the methods of data presentation
5. Discuss the concept of set and set operation
6. Understand the concept of permutations and combination as used in probability,
7. Understand the basic concept of probability.

vi Activities to Meet Course Objectives

The Course Material is written in a simple, clear and concise manner that will assist and enable you to understand this course very well. Statistics is an area where many people want to study because it is multidisciplinary in nature and it cut across so many disciplines. Relevant sites and standard references have been provided for you. There is going to be a lot of chatting and online interaction in this class through Zoom, WhatsApp, Facebook and Instagram. There will be individual assignments and group assignments. All assignments are due at the times slated. No late assignment will be entertained or accepted from you and hence, be very serious with your study. Completion and timely submission of assignments will also serve as part of your assessment. You are expected to read this course material thoroughly and understand very well. You are also expected to have software applications on your mobile phones like WhatsApp, Facebook and Instagram, a working email address and a phone number so that you can chats,

interact and share ideas with each other. Please do not hesitate to contact me through my email addresses, phone numbers and social media platforms. I will like you to succeed in this class and also in your future endeavor. Thank you and God bless.

Please Contact NBTE for the Complete Courseware