# LAIKIPIA UNIVERSITY COLLEGE

# DIBM 0213: BUSINESS STATISTICS

# COURSE OBJECTIVE

As a business person, employee or a researcher, one is confronted with situations where a decision has to be made. Some decisions require a pure exercise of judgment gained from experience. Other decisions need to be based on hard facts over and above intuition. The course focuses on the latter decisions and aims to enable students to apply statistics in decision making, especially in a research and work environment.

After going through the course the student should be able to;

* Use appropriate tools to collect and summarize data.
* Make decisions based on the data collected and summarized.

The following topics will be covered.

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|  | Topic |
| Part 1 | 1. Exploring data: Variables and distributions |
|  | * Picturing distributions with graphs |
|  | * Describing distributions with numbers |
|  | * Normal distributions |
|  | 1. Exploring data: Relationships |
|  | * Scatter plots and correlation |
|  | * Regression |
|  | * Two way tables |
|  | Exploring data: Part 1 review |
| Part 2 | From exploration to inference |
|  | 1. Producing data |
|  | * Producing data: Sampling |
|  | * Producing data: Experiments |
|  | 1. Probability and sampling distributions |
|  | * Introducing probability |
|  | * Sampling distributions |
|  | * General rules of probability |
|  | * Binomial and poisson distributions |
|  | 1. Introducing inference |
|  | * Introduction to inference |
|  | * Thinking about Inference |
|  | From exploration to inference: Part 2 review |
| Part 3 | Inference about variables |
|  | * Inference about a bout a population mean |
|  | * Two sample problems |
|  | * Inference about a population proportion |
|  | * Comparing two proportions |
|  | * Inference about variables: Part 3 review |
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**References:**

The key text, is

Moore, David S. (2010). The Basic Practice of Statistics, 5th edition.W. H. Freeman and Company

New York.

However any other text in statistics should satisfactorily cover the course.

**Evaluation**

Two CATs will be administered on dates to be agreed upon. A take away assignment will also be given. The total CAT and assignment mark is 30. The final exam will consist of one compulsory question and two optional. The total mark will be 70.

**Notes:**

A soft copy of the notes will be availed. There will be no dictation of notes in class.

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