

Probability and Statistics

Prepared by Dr. Alfaisal Hasan

STA 201
Probability and Statistics

Orientation Lecture





مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

Probability and Statistics

Orientation Lecture

STA 201

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www.midocean.ae

Chapter

Topics

- Chapter 1: Introduction To Statistics
- Chapter 2: Descriptive Statistics
- Chapter 3: Probability
- Chapter 4: Discrete Probability Distributions
- Chapter 5: Normal Probability Distributions
- Chapter 6: Confidence Intervals
- Chapter 7: Hypothesis Testing with One Sample
- Chapter 8: Hypothesis Testing with Two Samples
- Chapter 9: Correlation And Regression
- Chapter 10: Chi-Square Tests and The F -Distribution

Chapter **Assessment Method**

- Short Exam
- 80% marks
- Count of short Exam 10 (weekly)
- 8 marks for each short exam
- 20% Final examination

Chapter

Required Textbook

- Introduction to probability, statistics, and random processes

H. Pishro-Nik

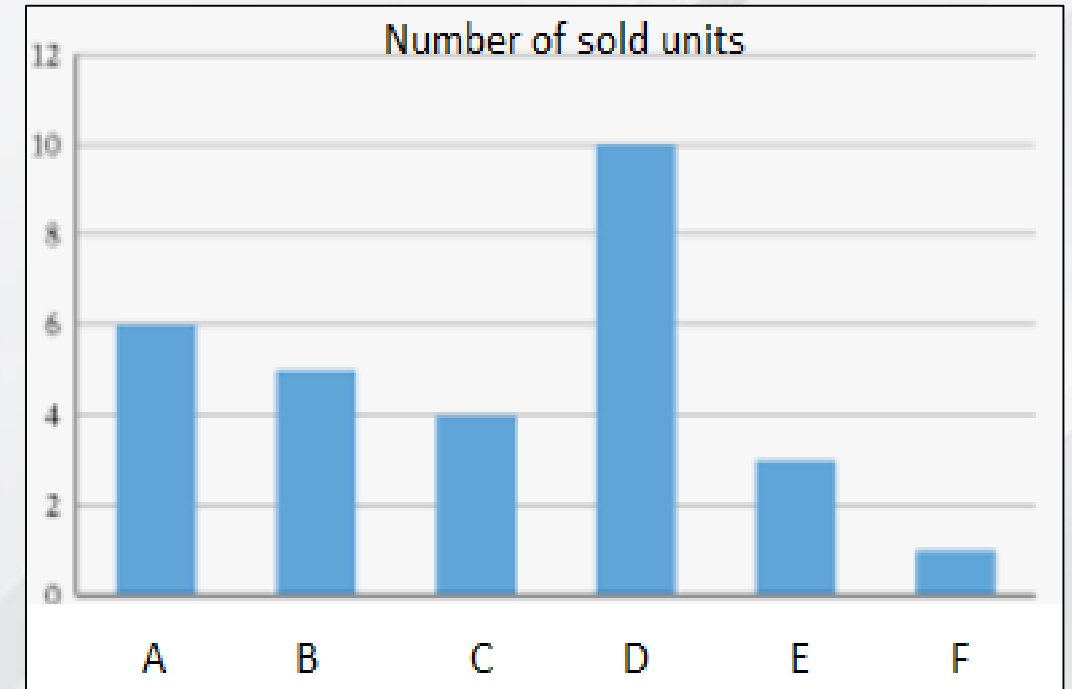
Probability and Statistics

Statistical knowledge helps you use the proper methods to collect the data, employ the correct analyses, and effectively present the results.

Statistics is a crucial process behind how we make discoveries in science, make decisions based on data, and make predictions.

Probability and Statistics

Statistics is the science of collecting, organizing, analyzing, and interpreting data in order to make decisions.



Chapter

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Topics

- Chapter 1: Mathematical preliminaries
- Chapter 2: The straight line and applications
- Chapter 3: Functions and Graphs
- Chapter 4: Limits and Continuity
- Chapter 5: Financial Mathematics
- Chapter 6: Differentiation
- Chapter 7: Methods of Differentiation
- Chapter 8: Function of several variables
- Chapter 9: Integration and applications
- Chapter 10: Linear algebra and applications



General Tips For Studying Statistics

- 1: LISTEN During Lecture
- 2: Take Good Notes
- 3: Ask Questions
- 4: Listen When Others Ask Questions
- 5: Review Notes After Class
- 6: Do More Homework
- 7: Practice, Practice, Practice
- 8: Don't Forget Your Textbook.
- 9: Seek Help If You Need It
- 10: Have the Proper Attitude

In order to get something out of the class you need to listen while in class. Often this can be difficult to do but it is very important. Sometimes important ideas will not be written down on the board, but instead just spoken by the lecturer.

**01**

LISTEN During Lecture

Try to write down everything that lecturer puts on presentation. It may seem easy when watching the lecturer, but it often is not so easy when it comes time for you to do it. A good set of notes will help remind you how to do these problems.

**02**

Take Good Notes

If you don't understand something then ask your lecturer. Chances are you are not the only one who doesn't understand.



03

Ask Questions

When other students ask questions make sure you listen to both the question and the answer. It may be that the student asking the question thought of something that you didn't think of.



04

LISTEN When Others Ask Questions

After each class you should review your notes. Note the topics that you found confusing and formulate questions that you can ask your lecturer to help you understand the topic.



05

Review Notes After Class

Do not limit yourself to just the homework that your lecturer assigns. The more problems that you work the better off you'll be.



06

Do More Homework

In order to get something out of the class you need to listen while in class. Often this can be difficult to do but it is very important. Sometimes important ideas will not be written down on the board, but instead just spoken by the lecturer.

**07****Practice, Practice, Practice**

If you get stuck on a topic that was discussed in class do not forget that you do have a textbook. Often the text book will contain examples not worked in class and/or a different approach to a problem.



08

Don't Forget Your Textbook

If you are having trouble with your math class you have many options open to you and you should take advantage of them.



09

Seek Help If You Need It

Always do the best that you can. Do not try to do just enough to get by. You should always do the best that you can and strive for the best grade that you can possibly get.



10

Have the Proper Attitude



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Thank You

