

EBA2203 Probability & Statistics**COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
EBA1204	2	3	2	2	0	3

COURSE AIM

- Use statistical methodology and tools in the problem-solving process.
- Compute and interpret descriptive statistics using numerical and graphical techniques.
- Understand the basic concepts of probability, random variables, probability distribution, and joint probability distribution.
- Compute point estimation of parameters, explain sampling distributions, and understand the central limit theorem.

COURSE WEEKLY CONTENTS

- 1 An introduction to statistics and statistical analysis on data observation.
- 2 Statistical measurements.
- 3 Elementary Probability- Probability theorems.
- 4 Conditional probability --Independent and dependent events.
- 5 Total probability rule – Bayes’ Theorem and applications.
- 6 Discrete probability distribution – probability mass function.
- 7 Continuous probability distribution – probability density function. 7th week exam.
- 8 Mathematical expectation, mean and variance.
- 9 Special discrete distribution: Bernoulli , Binomial, Hypergeometric and Poisson distributions.
- 10 Special continuous distribution: Uniform and exponential distribution.
- 11 Special continuous distribution: normal distribution.
- 12 Normal distribution.
- 13 Discrete joint probability distribution.
- 14 Continuous joint probability distribution.
- 15 Final Revision.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	←		30	MARKS		→	30
8 to 12	←		20	MARKS		→	20
1 to 15	←		10	MARKS		→	10
16 or 17	40	Final					40

REFERENCES

Textbook Ronald E. Walpole and Raymond H. Myers, Probability & Statistics for Engineers & Scientists , Person.