

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Probability Theory
Course number	STAT2307
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

- 1 - Knowing the probability
- 2 - Knowing the multi variate distribution and marginal distribution
- 3 - Knowing the Moment Generating functions and Conditional expectations
- 4 - Knowing special probability distributions
- 5 - Knowing special probability densities

Intended Learning Outcomes

Knowledge and Understanding	<ul style="list-style-type: none"> <li>* Learning how to find probability , conditional probability and independent events</li> <li>* The probability distribution for discrete random variable</li> </ul>
Intellectual Skills	<ul style="list-style-type: none"> <li>* Knowing the multi variate distribution</li> <li>* Knowing how to find marginal distribution</li> </ul>
Professional Skills	<ul style="list-style-type: none"> <li>* Finding the conditional distribution</li> <li>* Knowing special densities</li> <li>* Special Probability Distributions</li> </ul>
General Skill	<ul style="list-style-type: none"> <li>* Finding Moment Generating Functions</li> <li>* Finding Moments of Linear Combination of random variables</li> <li>* Finding Conditional Expectations</li> </ul>

Course Contents

- 1 - Probability
- 2 - Probability distributions and probability densities
- 3 - Mathematical Expectation
- 4 - Special Probability Distributions
- 5 - Special Probability Distributions
- 6 - Special Probability Densities

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**Teaching and Learning Methods**

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| 1 - Lectures                                |
| 2 - Solving different examples and problems |
| 3 - Giving some homework                    |

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**Teaching and Learning Methods for the Disabled Students**

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| 1 - Is not applied |
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**Students Assessment**

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
First midterm	middle of the semester	30
attendance and discussion	during the semester	5
Homework	during the semester	5
Final	at the end of the semester	60

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**Books and References**

Course note	Explanation on the board
Essential books	JOHN E. FREUND Mathematical Statistics , Fifth Edition