

## Planning and Quality Assurance Affairs

Form (A)

### Course Specifications

#### General Information

Course name	Advanced Statistical Analysis
Course number	STAT4316
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

#### Course Objectives

- 1 - Access to the students ability to distinguish among the statistical inference approaches and grasp the characteristics of those approaches

#### Intended Learning Outcomes

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|-----------------------------|--|
| Knowledge and Understanding | * Understand and grasp the characteristics of different schools of statistical inference |
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#### Course Contents

- 1 - Introduction to Advanced Statistical inference
- 2 - Goals of Statistical inference
- 3 - Classical school
- 4 - Bayesian School
- 5 - Comparison between the schools of statistical inference
- 6 - Solving practical applications

#### Teaching and Learning Methods

- 1 - Lectures
- 2 - Solving applications & Homework
- 3 - Prove some statistical theories

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

- 1 - do not apply

## Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
Midterm exam	Two hours	30
Homework and participation	5 hours	10
Final exam	Two hours	60

## Books and References

Course note	Marrison	Statistical Inference
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## Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
Introduction and the objectives of the statistical inference					
Classical approach					
Bayesian approach					
Comparison between the two approaches					
Prove some theories					
Solve practical problems					
Estimation					
Testing hypothesis					
Confidence limits					