CLS 109 – STATISTICS

Number of Credit Hours:	☑ 3 credits	❑ 4 credits	
Number of Lecture Hours per Week:	❑ 1 hour	❑ 2 hours	☑ 3 hours
Number of Lab Hours per Week:	❑ none	☑ 2 hours	❑ 3 hours
Number of Tutorial Hours per Week:	☑ none	❑ 1 hour	❑ 2 hours

***Catalog Description**:* This course introduces data sampling, organizing, and summarizing. Measures of central tendency and spread. Correlation and Regression. Probability and sampling distributions. Statistical inference with application from many fields.

***Prerequisites**:* ELU 106.

Prerequisites by Topics: Basic mathematics

Text book:

- Introduction to the Practice of Statistics, by David S. Moore and George P. McCabe, Recent Edition, W.H. Freeman and Company Publisher

References: None.

Assessment Plan for the Course:

Two Midterm Exams	30 %
Quizzes	10 %
Assignments	10 %
Home works	NA
Project/Report	10 %
Lab	NA
Final Exam	40 %
Other assessments	NA
Total	**100 %**

Major Topics Covered in the Course:

Unit	**Topic**	**No. of teaching hours**
1.	Data Distributions	12
2.	Data Relationships	3

3.	Randomness and Probability	9
4.	Sampling Distributions	6
5.	Introduction to Inference	7
6.	Inference for Mean	5
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Course Learning Outcomes:

Upon completion of the course, students will be able to:

C1 Carry out elementary data analysis
C2 Investigate association and relationship between variables
C3 Acquire awareness of the probabilistic/random nature of many phenomena that they deal with
C4 Learn basic probability laws and be able to apply them
C5 Make inferences about population based on information collected in a sample

Relationship between Course Learning Outcomes and Student Outcomes:

Course Learning Outcomes	**Unit of the syllabus**	**Possible artifacts**	**Level**	**Student Outcomes**
C1	1	Exams, Lab Exercises, Final Project	M	(1), (5)
C2	2	Exams, Lab Exercises, Final Project	M	(1), (5)
C3	3	Exams, Lab Exercises	L	(1)
C4	3, 4	Exams, Lab Exercises	L	(1)
C5	5, 6	Exams, Lab Exercises, Final Project	L	(1)

- Level of emphasis for an outcome is determined based on the weight as follows:
  - A CLO is ranked Low (L), if the CLO covers less than 10 % of course syllabus
  - A CLO is ranked Medium (M), if CLO covers 10 – 20 % of course syllabus
  - CLO is ranked High (H), if CLO covers more than 20 % of course syllabus

Estimate Curriculum Category Content (Semester hours)

Area	Core	Advanced	Area	Core	Advanced
Modern Programming Language			Networking and Data Communications		
Data Management			Systems Analysis and Design		
Role of IS in an Organization			Quantitative Analysis	3	
Information Systems			Others (specify *)		

Environment					

(*) Knowledge domain description

Area	Semester hours
GE	

Prepared by: Dr. Nidal Nasser and Dr. Noriah Al-Kandari
Revised by: Dr. Helala Hammadi
Revised by: ISC Curriculum committee in Oct 2019

ISC STUDENT OUTCOMES:

The program enables students to achieve, by the time of graduation:

1) *An ability to Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions*
2) *An ability to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.*
3) *An ability to communicate effectively in a variety of professional contexts.*
4) *An ability to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.*
5) *An ability to function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.*
6) *An ability to support the delivery, use, and management of information systems within an information systems environment.*