

Specification for Biostatistics course

2019/2020

A-Affiliation

1.	Relevant program	Bachelor of Veterinary Medical Science (BVMSc)
2.	Department offering the course	Animal Wealth Development

Date of specification approval: ministerial decree No. 1727 on 26/4/2017
(Approved in this template by the department council on 1/10/2019)

B-Basic information

1.	Course title	Biostatistics
2.	Course code	110(B) I
3.	Level	1 st year
4.	Semester	2 nd semester
5.	Total hours	2hour/week
6.	Lecture hours	1hour/week
7.	Practical hours	1hour/week

C-Professional Information

1- Course learning objectives

This course aims to:

- 1 - Provide the students by the different types of data and how to organize and display it.
- 2 - Provide the students by the concepts of central tendency, dispersion, Regression and Correlation and how to calculate them
- 3 - Give the students a simple introduction in the theory of probability.
- 4 - Provide the students by some discrete and continuous distributions such as Binomial, Normal and t distributions
- 5 - Apply the methods of estimation and testing of hypotheses techniques.

2- Intended learning outcomes of the course (ILOs):

a- Knowledge and understanding

After successful completion of the course the students should be able to:

- a1- Organize and display the data as a simple/grouped frequency table according to its type.
- a2- describe the basic probability concepts, the measures of central tendency, dispersion , Regression and Correlation.
- a3- explain the methods of estimation of the population parameters.
- a4- describe the testing of hypotheses techniques

b- Intellectual skills

After successful completion of the course the students should be able to:

- b1 - Distinguish between the different types of data.
- b2 - Apply the statistical tables such as standard normal and t tables.
- b3 - Construct the confidence interval for the unknown population parameters
- b4- Design the suitable test statistic for testing a statistical hypotheses about one or two population parameters

c- Professional and practical skills

After successful completion of the course the students should be able to:

- c1 -Critically calculate the measures of central tendency, dispersion, Regression and Correlation.
- c2- Design and interpret the confidence interval for the unknown population parameters
- c3- Critically apply the testing of hypotheses techniques about the population parameters

d- General and transferable skills

After successful completion of the course the students should have the following skills

- d1- Solve problems on a scientific basis

3- Course contribution in the program ILOs:

Course ILOS	Program ILOS
A Knowledge and understanding	a ¹
B Intellectual skills	-
C Professional and practical skills	-
D General and transferable skills	d ^{1,6}

3.1- Course contents:

Topic	Lecture hours	Practical hours
Organizing and displaying data	2	2
Measures of Central tendency	1	1
Measures of dispersion	1	1
Regression and Correlation	2	2
Basic probability concepts	2	2
Probability distributions	2	2
Sampling distributions	1	1
Estimation of parameters for one and two Populations: Mean and Proportion	2	2
Testing of hypotheses about parameters of one and two populations: Mean and proportion	2	2
Total hours	15	15

3.2- ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Organizing and displaying data	a1	b1	c1	d1
Measures of Central tendency	a2,	,b2,b3	c1	d1
Measures of dispersion	a2,	,b2,b3	c1	d1
Regression and Correlation	a2,	,b2,b3	c1	d1
Basic probability concepts	,a2	,b2,b3	c1,c2	d1
Probability distributions	a2,	,b2,b3	c1,c2	d1
Sampling distributions	a1, a3	,b2,b3	c1,c2	d1
Estimation of parameters for one and two Populations: Mean and Proportion	a3	,b2,b3	c2	d1
Testing of hypotheses about parameters of one and two populations: Mean and proportion	a4	,b4	c3	d1

4- Teaching, learning and assessment methods:

ILOs	Teaching and Learning methods				assessment method			
	L	P&M	Ps	Bs	practical	midterm	oral	written
Knowledge and understanding	a1	X	X	X	X	X	X	X
	a2	X	X	X	X	X	X	X
	a3	X	X	X	X		X	X
	a4	X	X	X	X		X	X
Intellectual skills	b1	X	X	X	X	X	X	X
	b2	X	X	X	X	X	X	X
	b3	X	X	X	X		X	X
	b4	X	X	X	X		X	X
Professional and practical	c1	X	X	X	X		X	X
	c2	X	X	X	X		X	X

	c3	x	x	x	x	x		x	x
General skills	d1	x	x	x	x	x	x	x	x

L :Lecture, P&M: Presentations & Movies, Ps: Problem solving, Bs: Brain storming

5- Assessment timing and grading:

Assessment method	timing	grade
Mid-term exam and semester work	6 th week	15
Practical exam	14 th week	20
oral exam	End of semester	15
Written exam	End of semester	50
total		100

6- List of references

6.1- Course notes: Notes approved by Department

6.2- Essential books (text books)

- N.A. Hasabelnaby Elementary Biostatistics with Applications from Saudi Arabia. King Saud University, 1996

6.3- Recommended books

- N.A. Hasabelnaby Elementary Biostatistics with Applications from Saudi Arabia. King Saud University, 1996.

6.4- Periodicals, Web sites, . etc

- <http://en.wikipedia.org/wiki/Biostatistics>.
- <http://www.hsph.harvard.edu/departments/biostatistics>.
- www.ekb.eg

7- Facilities required for teaching and learning

- Data show.
- White board.

Course coordinator: Prof. Dr. EMAN RAMDAN.

Head of department Prof. Dr. EMAN RAMDAN

Date 1/10/2019