Specification for Bacteriology, Immunology and Mycology course 2019/2020

A-Affiliation

1.	**Relevant program**	Bachelor of Veterinary Medical Science (BVMSc)
2.	**Department offering the course**	Bacteriology, Immunology and Mycology

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**	Bacteriology, Immunology and Mycology
2.	**Course code**	309 (B) II
3.	**Level**	3rd year
4.	**Semester**	Second semester
5.	**Total hours**	4
6.	**Lecture hours**	2
7.	**Practical hours**	2

C-Professional Information

1- Course learning objectives

- Provide all the needed information on bacteria as causative agents of animal diseases, toxicity and/or allergy.
- Gain accurate diagnosis of bacterial infections.
- Provide recent information on the recent techniques used in the diagnosis of microbial infections and to familiarize students with basic principles of molecular biology and biotechnology methods.

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- Define and classify bacteria involved in causing diseases and important infections.

a2- Tabulate and classify bacteria causing economic losses in farm animals.

a3- Describe host- parasite relationship and microbial pathogenesis.

a4- Mention different measures of prevention and control including chemotherapeutic agents as well as treatment and vaccination of bacterial and fungal pathogens

b- Intellectual skills

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

b1- Design a systematic approach for laboratory diagnosis of common infections and clinical conditions and select the most appropriate and cost-effective tool leading to the identification of the causative agent.

b2- Interpret results of microbiological, serological and molecular tests.

b3- Choose the scientific approach for prevention , control and suggestion of treatment for microbial infections

c- Professional and practical skills

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

c1- Practice on sample collection for isolation of bacteria and fungi.

c2- Choose suitable media for trials of isolation of different organisms.

c3- Apply the equipment and chemicals in the microbiology laboratory.

c4- Perform different methods for identification of bacteria and fungi.

c5-Discover problems during isolation.

C6- Apply recent techniques used for identification of bacteria and fungi

d- General and transferable skills

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

d1- Presentation skill.

d2- Searching skill.

d3-Communication skill

d4- Working in team skill

3- Course contribution in the program ILOs:

Course ILOS		Program ILOS
A	**Knowledge and understanding**	a7,9
B	**Intellectual skills**	,b6,7
C	**Professional and practical skills**	$c^{4,13}$
D	**General and transferable skills**	$d^{1,5,6}$

3.1- Course contents:

Topic	**Lecture hours**	**Practical hours**
Different Bacteria of Medical Importance	**30**	**-**
Methods for diagnosis of bacterial and fungal diseases and different techniques for isolation and identification.	**-**	**30**
Total	**30**	**30**

The midterm and practical exams are included during the semester

3.2- ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Different Bacteria of Medical Importance	**a1, a2,a3, a4**	**b1, b2, b3**	**C1, c2, c3, c4, c5, c6**	**d1, d2,d3,**
Methods for diagnosis of bacterial and fungal diseases and different techniques for isolation and identification.	**a1,a2,a3,a4**	**b1, b2, b3**	**C1, c2, c3, c4, c5, c6**	**d1, d2,d3,d4**

4- Teaching, learning and assessment methods:

ILOs		Teaching and Learning methods						assessment method				
		L	P&M	D	P	Ps	Bs	semester	midterm	oral	practical	written
and understandi	a1	x	x	x	**0**	**0**	x	x	x	x	**0**	x
	a2	x	x	x	**0**	**0**	x	x	x	x	**0**	x
	a3	x	x	x	**0**	**0**	x	x	x	x	**0**	x
	a4	x	x	x	**0**	**0**	x	x	x	x	**0**	x
Intellec ual skills	b1	x	x	x	x	x	x	x	x	x	**0**	x
	b2	x	x	x	x	x	x	x	x	x	**0**	x
	b3	x	x	x	x	x	x	x	x	x	**0**	x
Professional and practical skills	c1	**0**	x	x	x	x	**0**	x	**0**	x	x	**0**
	c2	**0**	x	x	x	x	**0**	x	**0**	x	x	**0**
	c3	**0**	x	x	x	x	**0**	x	**0**	x	x	**0**
	c4	**0**	x	x	x	x	**0**	x	**0**	x	x	**0**
	c5	**0**	x	x	x	x	**0**	x	**0**	x	x	**0**
	c6	**0**	x	x	x	x	**0**	x	**0**	x	x	**0**
General skills	d1	**0**	x	**0**	**0**	**0**	**0**	x	**0**	x	**0**	**0**
	d2	x	**0**	x	**0**	**0**	**0**	x	**0**	x	**0**	x
	d3	x	**0**	**0**	x	x	x	x	**0**	x	**0**	**0**
	d4	**0**	**0**	x	x	**0**	**0**	x	**0**	x	**0**	**0**

L **:Lecture,** P&M**: Presentations & Movies,** D&S: **Discussions & Seminars PT: Practical,** Ps: **Problem solving,** Bs: **Brain storming**

5- Assessment timing and grading:

Assessment method	timing	grade
Semester work	Around semester	15
oral exam	End of semester	
Mid-term exam	6th week	15
Practical exam	14th week	20

Written exam	End of semester	50
total		100

6- List of references

6.1- Course notes:

General bacteriology, Immunology and Mycology: summarized integrated course for 3rd grade students

6.2- Essential books (text books)

- Marjorie Kelly Cowan (2016) Microbiology Fundamentals
- Dr. R.C. Dubey (2014) Practical Microbiology
- Michael J Day (2011) Veterinary Immunology
- Don J. Brenner (2005) Bergy"s Manual of Systematic Bacteriology
- B. S. Malik (2002) Veterinary Bacteriology & Mycology

6.3- Recommended books

- **Course note**.
- Marjorie Kelly Cowan (2016) Microbiology Fundamentals
- Michael J Day (2011) Veterinary Immunology
- Don J. Brenner (2005) Bergy"s Manual of Systematic Bacteriology
- B. S. Malik (2002) Veterinary Bacteriology & Mycology.

6.4- Periodicals, Web sites, ……etc

- Journal of Veterinary Microbiology.
- Vaccine
- http://www.bact.wisc.edu/Bact330/330Lecturetopics
- http://www.microbelibrary.org
- www.ekb.eg .

7- Facilities required for teaching and learning

- Teaching hall.
- A laboratory of microbiology.
- Teaching hospital
- Teaching farm

Course coordinator: Prof. Dr. ASHRAF AWAD ABD EL-TAWAB.

Head of department Prof. Dr. ASHRAF AWAD ABD EL-TAWAB

Signature ……

Date…1/10/2019