



جامعة الزقازيق
كلية الطب البيطري
وحدة ضمان الجودة

Zagazig University
Faculty of Veterinary Medicine
The Quality Assurance Unit
وحدة ضمان الجودة بكلية الطب البيطري-جامعة الزقازيق

Programme Specification
Bachelor of Veterinary Medical Sciences (BVMSc)

(2022-2023)

Faculty Council 8/ 8 /2022



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Programme Specification (2022-2023)

Zagazig University

Faculty of Veterinary Medicine

Programme specification

A. Basic information

1- Programme Title: Bachelor of Veterinary Medical Sciences (BVMSc)

2- Programme type: Single

3- Faculty Departments:

1. Anatomy and Embryology
2. Histology
3. Biochemistry
4. Physiology
5. Animal Wealth Development
6. Veterinary Public Health*
7. Behavior, Management of animal, Poultry and Aquatic animals*
8. Pathology
9. Bacteriology, Mycology and Immunology
10. Nutrition and Clinical Nutrition
11. Pharmacology
12. Parasitology
13. Virology
14. Theriogenology
15. Surgery, Anesthesia and Radiology
16. Animal Medicine
17. Fish Diseases and Management
18. Clinical Pathology
19. Food Control
20. Forensic Medicine and Toxicology
21. Avian and Rabbit Medicine
22. Zoonoses

* Through Ministerial Resolution No. 229 on 24 January 2022, the two subjects of the Department of Veterinary Public Health were divided into two scientific departments, the Department of Veterinary Public Health and the Department of Behavior, Management of animal, Poultry, and Aquatic animals.

4- External Institutions

1. ELP Centre of Zagazig University "English Language and Terminology" (ENLA 108)
2. Faculty of Science: Department of Physics "Biophysics" (BPHY 109)



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3. Human rights (HURT 110): Faculty of law

5- Coordinator

Prof. Dr. Mohamed El-Sayed Mohamed (**Vice Dean for Education and Student Affairs**).

6- External evaluator

External and internal evaluators were nominated for the Bachelor of Veterinary Medical Sciences program through the Quality Assurance Unit on the date of 5/ 2/ 2019, and it was approved by the Faculty Council on 13/ 2/ 2019. An internal and external evaluator for the courses was also nominated by the scientific departments, each according to his specialization, and these nominations were approved by the Faculty Council on 8/4/2019.

7- Last date of programme specification approval:

7.1- The current bylaw is issued by the ministerial decree no. 103 on 23/2/1986 and updated by decrees No. 80 on 27/1/1994, 1274 on 22/5/2005 and 1249 on 11/6/2009.

7.2- According to the approved reviewing study (12/4/2010) for adoption and application of NARS Feb. 2009 and justification matching of program specification to fulfill the NARS, the Bachelor of Veterinary Medical Sciences (BVMSc) programme was reviewed and approved (Faculty council 20-29 October 2014). The academic departments confirmed their continued adoption of NARS Feb. 2009 through their departmental councils, whose executive decisions were approved by the Education and Student Affairs Committee on 3/4/2019 and the College Board on 8/4/2019.

B. Professional Information

1 - Programme aims

The main objective of the Faculty of Veterinary Medicine – Zagazig University is to **supply the local, national, and regional societies** with highly qualified veterinarians able to:

1. Recognize the scientific basis of veterinary medicine and apply that understanding to veterinary practice ethically with legal frame.
2. Comprehend disease at a molecular, cellular, systemic, individual, and population level.



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3. Manage their knowledge into the effective diagnosis, medical management and treatment of sick animals and other health-related issues.
 4. Utilize the scientific veterinary research concepts (uncovering curiosity and criticism..... etc) as well as cooperation and working in groups.
 5. Find out and use medical information. They should engage in lifelong learning to remain current in their understanding of the scientific basis of veterinary medicine.
 6. Develop the health of animals and the public through client and public education, service, and action.
 7. Distinguish the important and diverse roles that animals play in the health, economics, food-supply, recreation, and well-being of mankind.
 8. Recognize that the BVMSc degree is an entry-level degree and that, in order to function effectively as a seasoned veterinarian or as a specialist, they will need to invest considerable additional educational time and efforts.

2 - Intended learning Outcomes (ILOs)

a - Knowledge and Understanding

The Zagazig Veterinary Medicine graduates should be able to:

- a.1- Distinguish English language and terminology.
 - a.2- Recognize molecular, ultra-structural, clinical, biochemical and cellular mechanisms important in maintaining the body's homeostasis.
 - a.3- Describe macroscopic and microscopic structure of normal tissue and organs.
 - a.4- Identify function of the body and each of its major organ systems.
 - a.5- Recognize the embryological development, causes of teratogenesis, and types of malformation.
 - a.6- Attain basics of biostatistics, biophysics and biochemistry and their applications in veterinary fields.
 - a.7- Identify genetic principles, theories and their filed applications.
 - a.8- Acquire complementary sciences for computer skills related to animal farm management and animal rights.
 - a.9- Recognize normal animal behavior of different animal species.
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- a.10- Acquire principles of adequate nutrition, normal feeding patterns and metabolic disorders.
 - a.11- Identify common animal breeds within their localities.
 - a.12- Recognize normal and abnormal reproductive behavior.
 - a.13- Recognize influence of stress and other issues on animal production and health.
 - a.14- Estimate the economic impact and factors on the delivery of veterinary health care as well as improvement of animal production (genetic lines and artificial insemination).
 - a.15- Estimate the value of the scientific methods in establishing the causation of disease and efficacy of traditional and nontraditional therapies.
 - a.16- Identify the scientific principals underlying laboratory diagnosis and the ability to critically evaluate the limitations of diagnostic methodologies.
 - a.17- Recognize various causes (genetic developmental, metabolic, toxic, microbiologic, parasitic, autoimmune, neoplastic, degenerative and traumatic) of disorders and the ways in which they operate on the body (Pathogenesis).
 - a.18- Describe the altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions.
 - a.19- Identify principals of pharmacology, therapeutics and therapeutic decision making.
 - a.20- Name the ideal and permissible parameters (physical, chemicals, and drug residues as well as microbial) of milk, dairy products, eggs, oils meat and meat products.
 - a.21- Recognize how to detect the adulteration of milk, meat and their products.
 - a.22- Depict the etiology, source, reservoir, mode of transmission and control of animal and zoonotic diseases.
 - a.23- Identify the basics of judgment of meat, fish and poultry carcasses and their products and knowledge of statutory requirements for animal transport, slaughterhouses and storage of meat and its products.
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- a.24- Recognize avian, rabbit and fish diseases and their prophylactic and control measures.
 - a.25- Recognize the management and prevention strategy decisions against diseases.
 - a.26- Identify the animal health maintenance application.
 - a.27- Recognize the epidemiological triangle of diseases and accurate measurements of Veterinary quarantine.
 - a.28- Identify permissible limits of pollutants in water, feed and air & soil contents.
 - a.29- Portray the application of disinfectants in different situations (self, labs, farms..... etc.).
 - a.30- Identify basics of forensic medicine and toxicology in addition to different sources, types of toxic agents, how to detect them and treat their effects.
 - a.31- Recognize principles of anesthesia, surgical and theriogenological operations beside diagnostic imaging of different animal species.
 - a.32- Identify the laws and ethical codes relevant to animal and food hygiene (meat and milk products).
 - a.33- Recognize appropriate euthanasia of animals, ensuring personal and environmental safety as well as carcass disposal.
 - a.34- Identify principles of control of emerging and exotic animal, poultry and fish diseases.
 - a.35- Recognize the basics of communication skills and human rights.

b - Intellectual skills

The Zagazig Veterinary Medicine graduates must be able to:

- b.1- Identify the important clinical questions stemming from a case interaction.
 - b.2- Compare and critique based on an understanding of available data as macro and microscopical picture of different body organs, animal nutritional problems and medication for different problems.
 - b.3- Evaluate scientific as well as clinical information and critically analyze conflicting data and hypotheses.
 - b.4- Locate from different choices in handling, preventing and treatment of different veterinary problems.
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- b.5- Conclude and discuss the scientific approach to find solutions for the veterinary problems and interpret the laboratory test results.
 - b.6- Practice continuing learning and self-evaluation
 - b.7- Specify problems and find solution in different veterinary sciences.
 - b.8- Locate the appropriate procedures for treatment and control of animal diseases.
 - b.9- Utilize the knowledge of evidence based veterinary medicine in making decisions.

c - Professional and practical skills

The Zagazig Veterinary Medicine graduates must be able to:

- c.1- Secure and handle animals in a safe and human manner with maintenance the animal welfare.
 - c.2- Isolate and identify the etiological agents of diseases (bacteria, viruses, parasites, nutritional, toxic, metabolic etc.).
 - c.3- Carryout clinical and pathobiological (pathological, clinical pathological and clinical biochemistry) examination of diseased animals.
 - c.4- Diagnose different diseases among various animal species.
 - c.5- Write a ration formula according to the health status and genetic line of animals.
 - c.6- Apply anesthesia for common surgical and theriogenological procedures efficiently and implement appropriate after care.
 - c.7- Perform a post-mortem examination appropriate to the species involved.
 - c.8- Apply surgical and theriogenological procedures.
 - c.9 – Obtain the history of different animal cases.
 - c.10- Implement procedures related to public health issues, notifiable diseases and disposal of animal wastes.
 - c.11- Apply specific treatment for the diagnosed cases and write a prescription
 - c.12- Recognize and outline initial treatment as well as emergency care for sick animals with life threatening condition and pain management.
 - c.13- Utilize appropriate safety procedures to protect clients, co-workers and self.
 - c.14- Carryout feasibility studies as well as bioinformatics for animal production projects.
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- c.15- Inspect meat, milk and their products to decide their fitness to human consumption with issuing a report.
 - c.16- Apply preventive measures in veterinary premises and fields.
 - c.17- Perform diagnostic imaging techniques safely.
 - c.18- Apply proper animal euthanasia in humane and safe manner.
 - c.19- Deal professionally with animal, poultry and fish farm management.
 - c.20- Examine different animal tissues macro and microscopically.
 - c.21- Carryout suitable procedure of vaccination in different animal species.
 - c.22- Carryout a scientific experiment and test professionally.

d - General and transferable skills

The Zagazig Veterinary Medicine graduates must be able to:

- d.1- Impress team work to achieve a specific task.
- d.2- Communicate successfully among students and animal owners by various means.
- d.3- Perform a specified task in research on common disease problems in the surrounding domestic and wild animals in Sharkia province.
- d.4- Demonstrate knowledge of the organization and management of veterinary practices and record keeping.
- d.5- Utilize the acquired knowledge and skills to work under pressure for control of emerging diseases.
- d.6- Interpret, transcribe and communicate data and observation (e.g. medical legal report).
- d.7- Use media to help in veterinary extension.

3-Academic standards

3.1- External references for standard:

The national academic reference standards (NARS) of veterinary medicine issued by national authority of quality assurance and accreditation for education (NAQAAE) were adopted by the faculty council 12/4/2010. The academic departments confirmed their continued adoption of NARS Feb. 2009 through their



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departmental councils, whose executive decisions were approved by the Education and Student Affairs Committee on 3/4/2019 and the College Board on 8/4/2019.

3.2- Comparison of provision to external references:

3.2.1- Comparing the NARS with Bachelor of Veterinary Medical Sciences (BVMSc) programme ILOS

Knowledge and understanding	
NARS	BVMSc Programme ILOS
1	a 1, 2, 6, 7, 8
2	a 8, 9, 11, 12, 14, 25
3	a 3
4	a 2, 4
5	a 13, 26
6	a 10,17
7	a 15,16, 17, 18, 22
8	a 15, 19, 20
9	a 25, 27
10	a 5, 17, 30, 31, 35
11	a 15, 16, 17, 18, 22, 24, 26, 27, 33, 34
12	a 27
13	a 20, 21, 22, 23, 29, 32
14	a 26, 32
15	a 35
Intellectual Skills	
NARS	BVMSc Programme ILOS
1	b 1, 3
2	b 2
3	b 4, 5, 7
4	b 8, 9
5	b 1, 6
Professional and practical skills	
NARS	BVMSc Programme ILOS



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1	c 1 to 22
2	c 1, 18
3	c 9
4	c 3
5	c 12, c 22
6	c 15
7	c 5, 19
8	c 11, 12
9	c 2, 4
10	c 11, 12
11	c 13
12	c 10, 15, 16
13	c 13
General and transferable Skills	
NARS	BVMSc Programme ILOS
1	d 5
2	d 1
3	d 2, 6
4	d 4
5	d 3
6	d 7

3.2.2- Comparing the NARS with Bachelor of Veterinary Medical Sciences (BVMSc) programme structure

Total contact hours:

Lectures: 2325 Practical: 1950 Summer Training: 720 Total: 4995

- **Basic sciences:**

Science	Number of hours
Biophysics	60
Biochemistry	180
Biostatistics	60
Animal and poultry behavior and management	120
Anatomy	270



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Histology	150
Physiology	240
Total	1080

Percentage of basic sciences: 21.62 %

• **Pre-clinical sciences:**

Science	Number of hours
Genetics	90
Bacteriology and mycology	120
Immunology	45
Virology	120
Pharmacology	150
Parasitology	150
Pathology	120
Nutrition and clinical nutrition	150
Milk and milk products hygiene and technology	150
Meat and meat products hygiene and technology	150
Total	1245

Percentage of pre-clinical sciences: 24.92%

• **Clinical sciences:**

Science	Number of hours
Internal medicine	240
Infectious diseases	120
Forensic medicine and toxicology	120
Morbid anatomy	120
Avian and rabbit disease	120
Fish diseases and management	120*
Animal, poultry and environmental hygiene	150
Surgery	240
Zoonoses	90
Gynecology, obstetrics and artificial insemination	240
Clinical pathology	120*
Total	1680

Percentage of clinical sciences: 33.63 %

* Minstrel decree No. 4432 in 20 November, 2013 to increase lecture/week for Fish diseases and management and clinical pathology from one hour to two hours/week

• **Training:**

Number of hours: 720

Percentage of training: 14.4 %



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- **Computer and ICT:**

ICDL isn't required to obtain a bachelor's degree in accordance with the decision of the supreme council of universities on 15.2.2011 and the decision of College Board on 9/1/2012. Therefore, a section on teaching computer science in Biostatistics course was added in line with NARS 2009, and the new course specification of the Biostatistics course besides the other courses such as Anatomy, histology, biochemistry, physiology, virology, genetics, clinical pathology, Zoonoses.

- **Humanities:**

Science	Number of hours
English	30
Veterinary economics farm management	60
Human rights and combating corruption	30
Total	120

Percentage of humanities: 2.4 %

- **Discretionary subjects:**

Science	Number of hours
Animal breeding and production	150
Total	150

Percentage of Discretionary subjects: 3 %

* *Minstrel decree No. 4432 in 20 November, 2013 to increase lecture/week for Clinical pathology from one hour to two hours/week.*



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NARS			BVMSc academic standards		
Subject	Range	Sciences	Percent	Sciences	Remarks
Basic sciences	22-28	Biology, biophysics, chemistry, biostatics, animal husbandry, <i>embryology</i> , histology, physiology, anatomy	21.6%	Biophysics, biochemistry, biostatics, Animal and poultry behavior and management, anatomy, histology, physiology, animal breeding and production.	NARs biology and chemistry are replaced by Biochemistry
Pre-clinical sciences	17-23	Genetics, microbiology, nutrition, mycology, immunology, pharmacology, parasitology, virology, pathology, milk and meat hygiene	24.92%	Genetics, nutrition, bacteriology and mycology, immunology, pharmacology, parasitology, virology, pathology, Milk and milk products hygiene and technology, Meat and meat products hygiene and technology	Higher than NARS
Clinical sciences	40-44	Epidemiology and pathogenesis, internal medicine, infectious diseases, forensic medicine and toxicology, poultry and fish diseases, hygiene, surgery, zoonoses, theriogenology, and clinical investigation, and treatment of animals	33.63%	Internal medicine, infectious diseases, forensic medicine and toxicology, Avian and rabbit diseases, Fish diseases and management, Animal, poultry and environmental hygiene, surgery, zoonoses, Gynecology, obstetrics and artificial insemination, Morbid anatomy, clinical pathology	Lower than NARS*



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Continue

Training*	2-6	Field trips and clinical investigations	14.41%		More than NARS**
Computing and ICT	1-3	Computer sciences and application IT			***
Humanities	2-4	English, economics, human rights and social studies	2.4%	English, Veterinary economics and farm management, human rights	Within the range
Discretionary subjects	4-8	Allowed to each faculty to be used based on its mission	3%	Clinical pathology, animal breeding and production	Lower than NARS

* Justification: Summer training in Faculty AS is 14.4% while in NARS 2-6%. Clinical sciences (42.04%) are teaching during the academic years by 33.63% and are completed during the summer training period by 8.41%.

** Justification: Summer training: There is a plan for summer training as well as assessment methods. In addition, it is a requirement for graduation.

*** ICDL isn't required to obtain a bachelor's degree in accordance with the decision of the supreme council of universities on 15.212.2011 and the decision of College Board on 9/1/2012. Therefore, a section on teaching computer science in Biostatistics subject was added in line with NARS 2009



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4 - Curriculum structure and content.

4.a) Programme duration: 5 years.

4.b) Programme structure:

A- No. of contact hours

Academic year	Lectures	Practical	Total
1 st year	450	330	780
2 nd year	360	300	660
3 rd year	465	390	855
4 th year	510	480	990
5 th year	540	450	990

B- Summer Training

Academic year	Total hours
3 rd year	240
4 th year	240
5 th year	240
Total	720

Contact hours/ week

Academic year	1 st semester	2 nd semester	Summer Training
1 st	26	26	-
2 nd	22	22	-
3 rd	30	27	42
4 th	33	33	42
5 th	33	33	42



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4.bi- Total contact hours:

Lectures: 2325 Practical: 1950 Summer Training: 720 Total: 4995

4.bii- No of contact hours compulsory (4275)

4.biii- No of contact hours of basic sciences: No:1080 %: 21.6
4.biv- No of contact hours of social science and humanities: No: 120 %: 2.4
4.bv- No of contact hours of specialized: No: 2925 %:58.56
4.bvi- discretionary subjects: No: 150 %: 3
4.bvii- No of field training (summer training): No:720 %:14.4

4.bviii- Single programme

Table (1) curriculum structure and course percentage

Academic year	Code No	Course title	Total Contact hours	Percentage
First Year	ANEM 101	Anatomy and Embryology A	120	2.80
	HIST 102	Histology A	150	3.50
	BCHE 103	Biochemistry	120	2.80
	PHYS 104	General Physiology	120	2.80
	ANWD 105	Biostatistics	60	1.40
	ANWD 106	Veterinary Genetic and Genetic engineering	90	2.11
	ENLA 108	English language	30	0.70
	BPHY 109	Biophysics	60	1.40
	HURT 110	Human rights	30	0.70
Total			780	

Academic year	Code No	Course title	Total Contact hours	Percentage
Second Year	ANEM 211	Applied and Comparative anatomy	180	4.21
	PHYS 212	Special Physiology	120	2.80
	BCHE 213	Clinical Biochemistry	60	1.40
	VTPH 214	Animal & poultry behavior and management	120	2.80
	ANWD 215	Animal breeding and production	150	3.50
	ANWD 216	Veterinary economics and farm management	60	1.40
Total			660	



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Academic year	Code No	Course title	Total Contact hours	Percentage
Third Year	PATH 317	General pathology	120	2.80
	BAMI 318	Bacteriology and mycology	120	2.80
	NCNT 319	Nutrition and clinical nutrition	150	3.50
	PHAR 320	Pharmacology	150	3.50
	PARA 321	Parasitology	150	3.50
	VIROL 322	Virology	120	2.80
	BAMI 323	Immunology	45	1.05
TOTAL			855	

Academic year	Code No	Course title	Total Contact hours	Percentage
Fourth Year	THER 424	Gynecology and obstetrics	120	2.80
	SANR 425	General surgery and anesthesia	120	2.80
	ANME 426	General internal medicine	120	2.80
	FDMN 427	Fish diseases and management	120	2.80
	CLPA 428	Clinical pathology	120	2.80
	FCNT 429	Milk and Milk products hygiene and technology	150	3.50
	FMDT 430	Forensic medicine, toxicology and veterinary procedures	120	2.80
	PATH 431	Pathology (Morbid anatomy)	120	2.80
TOTAL			990	

Academic year	Code No	Course title	Total Contact hours	Percentage
Fifth Year	THER 532	Obstetrics and artificial insemination	120	2.80
	SANR 533	Special surgery radiology	120	2.80
	ANME 534	Special internal medicine	120	2.80
	VTPH 535	Animal, poultry and environmental hygiene	150	3.50
	ANME 536	Infectious diseases	120	2.80
	AVRM 537	Avian and rabbit diseases	120	2.80
	FCNT 538	Meat and meat products hygiene and technology	150	3.50
	ZOON 539	Zoonoses	90	2.11
Total			990	



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5- Programme courses

5-1- First year- Semester I

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
ANEM101	Anatomy and Embryology -A	60	2	2	4	1, 3, 5	2, 3, 4	18, 20	1, 2, 7
HIST102	Histology-A	75	3	2	5	2, 3	2, 3, 4, 5	20	1, 2, 3, 7
BCHE103	Biochemistry (Basics)-A	60	2	2	4	2, 6, 7, 16	2, 3, 4, 5, 6, 7	22	1, 2, 6
PHYS104	General Physiology -A	60	2	2	4	2, 4, 33	2, 3, 4, 5, 6, 7, 9	18, 22	1, 2, 6
ANWD105	Biostatistics	60	2	2	4	6, 8	2, 3, 4, 5, 6, 9	14	1, 2, 4, 6
ANWD106	Vet. Genetics and Genetic Engineering -A	45	2	1	3	2, 5, 7, 14, 17	2, 3, 4, 5, 6, 7, 9	2	1, 2, 6
ENLA108	English Language	30	2	-	2	1	2, 5, 6	-	2, 6
	Total	390	15	11	26				



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5-2- First year- Semester II

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
ANEM101	Anatomy and Embryology –B	60	2	2	4	1, 3, 5	2, 3, 4	18, 20	1, 2, 7
HIST102	Histology-B	75	3	2	5	2, 3	2, 3, 4, 5	20	1, 2, 3, 7
BCHE103	Biochemistry (Molecular biology) -B	60	2	2	4	2, 6, 7, 16	2, 3, 4, 5, 6, 7	22	1, 2, 6
PHYS104	General Physiology -B	60	2	2	4	2, 4, 33	2, 3, 4, 5, 6, 7, 9	18, 22	1, 2, 6
ANWD106	Vet. Genetics and Genetic Engineering -B	45	2	1	3	2, 5, 7, 14, 17	2, 3, 4, 5, 6, 7, 9	2	1, 2, 6
BPHY109	Biophysics	60	2	2-	4	6	2, 3, 4, 5	22	1, 2, 6
HURT110	Human rights and combating corruption	30	2	-	2	35	2, 6	-	2
	Total	390	15	11	26				



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5-3- Second year- Semester I

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
ANEM211	Applied and Comparative anatomy-A	75	3	2	5	1, 3, 5	2, 3, 4	18, 20	1, 2, 7
PHYS212	Special Physiology-A	60	2	2	4	2, 4, 12, 33	2, 3, 5, 6, 7, 9	18, 22	1, 2, 6
BCHE213	Clinical Biochemistry	60	2	2	4	2, 6, 16	2, 3, 4, 5, 6, 7	3, 22	1, 2, 6
VTPH214	Animal & Poultry Behavior and Management-A	60	2	2	4	1, 9, 12, 33	2, 3, 4, 5, 6, 7	1	1, 2, 7
ANWD215	Animal Breeding and Production - A	75	3	2	5	9, 11, 13, 14	2, 3, 4, 5, 6, 7, 9	19	1, 2, 4, 6
	Total	330	12	10	22				



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5-4- Second year- Semester II

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
ANEM211	Applied and Comparative anatomy-B	75	3	2	5	1, 3, 5	2, 3, 4	18, 20	1, 2, 7
PHYS212	Special Physiology-B	60	2	2	4	2, 4, 12, 33	2, 3, 5, 6, 7, 9	18, 22	1, 2, 6
VTPH214	Animal & Poultry Behavior and Management-B	60	2	2	4	1, 9, 12, 33	2, 3, 4, 5, 6, 7	1	1, 2, 7
ANWD215	Animal Breeding and production-B	75	3	2	5	9, 11, 13, 14	2, 3, 4, 5, 6, 7, 9	19	1, 2, 4, 6
ANWD216	Vet. Economics and farm management	60	2	2	4	8, 14	2, 3, 4, 5, 6, 7, 9	14	1, 2, 3, 6, 7
	Total	330	12	10	22				



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5-5 Third year - Semester I

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
PATH317	General Pathology-A	60	2	2	4	10, 16, 18	2, 3, 4, 5, 6, 7, 9	3	1, 2, 3
BAMI318	Bacteriology & Mycology - A	60	2	2	4	16, 17	2, 3, 4, 5, 6, 7	2, 13, 22	1, 2, 6
NCNT319	Nutrition & Clinical Nutrition-A	75	3	2	5	10, 17, 28	2, 3, 4, 5, 6, 7, 9	2, 5	1, 2, 6
PHAR320	Pharmacology -A	75	3	2	5	15, 19, 20, 29, 30	2, 3, 4, 5, 6, 7, 9	1, 11, 22	1, 2, 6
PARA321	Parasitology -A	75	3	2	5	16, 17	2, 4, 5	2	1, 2
VIRL322	Virology -A	60	2	2	4	2, 16, 17, 22	2, 3, 4, 5, 6, 7	2, 13, 22	1, 2
BAMI323	Immunology	45	1	2	3	16, 17	2, 3, 4, 5, 6	2, 22	1, 2, 6
	Total	450	16	14	30				



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وحدة ضمان الجودة

5-6 Third year- Semester II

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
PATH317	General Pathology-B	60	2	2	4	10, 16, 18	2, 3, 4, 5, 6, 7, 9	3	1, 2, 3
BAMI318	Bacteriology & Mycology -B	60	2	2	4	16, 17	2, 3, 4, 5, 6, 7	2, 13, 22	1, 2, 6
NCNT319	Nutrition & Clinical Nutrition-B	75	3	2	5	10, 17, 28	2, 3, 4, 5, 6, 7, 9	2, 5	1, 2, 6
PHAR320	Pharmacology -B	75	3	2	5	15, 19, 20, 29, 30	2, 3, 4, 5, 6, 7, 9	1, 11, 22	1, 2, 6
PARA321	Parasitology -B	75	3	2	5	16, 17	2, 4, 5	2	1, 2
VIRL322	Virology -B	60	2	2	4	2, 16, 17, 22	2, 3, 4, 5, 6, 7	2, 13, 22	1, 2
	Total	405	15	12	27				



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وحدة ضمان الجودة

5-7 Fourth year- Semester I

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
THER424	Gynecology and obstetrics - A	60	2	2	4	5, 12, 13, 14, 15, 19, 25, 31	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 4, 6, 8, 9, 11, 13, 17	1, 2, 4, 6
SANR425	General Surgery and Anesthesia - A	60	2	2	4	15, 19, 31, 33	1, 2, 3, 4, 6, 7, 8, 9	1, 2, 3, 4, 6, 8, 9, 11, 12	1, 2, 4, 6, 7
ANME426	General Internal Medicine- A	60	2	2	4	13, 15, 19, 31	1, 3, 4, 5, 6, 7, 8, 9	1, 3, 4, 12, 16	1, 2, 6
FDMN427	Fish Diseases and Management -A	60	2	2	4	1, 10, 13, 15, 16, 19, 24, 25	1, 2, 3, 4, 5, 6, 7, 8	2, 3, 4, 7, 9, 10, 11, 13	1, 2, 4, 5, 7
CLPA428	Clinical Pathology -A	60	2	2	4	2, 16, 18	2, 3, 4, 5, 6, 7	2, 3, 22	1, 2, 6
FCNT429	Milk & M. Products Hygiene and Technology -A	75	3	2	5	20, 21, 32	2, 3, 4, 5, 6, 7	15, 22	1, 2, 6, 7
FMDT430	Forensic Medicine, Toxicology and Vet Procedures -A	60	2	2	4	17, 30	2, 3, 4, 5, 6, 9	2	1, 2, 6
PATH431	Pathology (Morbid Anatomy)-A	60	2	2	4	16, 18, 33	2, 3, 4, 5, 6, 7, 9	3, 7, 18	1, 2, 6
	Total	495	17	16	33				



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5-8 Fourth year - Semester II

Code No	Course title	Total Contact	No. of hours / week			Programme ILOs covered (by No.)			
			Lect .	Lab .	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
THER424	Gynecology and obstetrics - B	60	2	2	4	5, 12, 13, 14, 15, 19, 25, 31	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 4, 6, 8, 9, 11, 13, 17	1, 2, 4, 6
SANR425	General Surgery and Anesthesia-B	60	2	2	4	15, 19, 31, 33	1, 2, 3, 4, 6, 7, 8, 9	1, 2, 3, 4, 6, 8, 9, 11, 12	1, 2, 4, 6, 7
ANME426	General Internal Medicine- B	60	2	2	4	13, 15, 19, 31	1, 3, 4, 5, 6, 7, 8, 9	1, 3, 4, 12, 16	1, 2, 6
FDMN427	Fish Diseases and Management -B	60	2	2	4	1, 10, 13, 15, 16, 19, 24, 25	1, 2, 3, 4, 5, 6, 7, 8	2, 3, 4, 7, 9, 10, 11, 13	1, 2, 4, 5, 7
CLPA428	Clinical Pathology -B	60	2	2	4	2, 16, 18	2, 3, 4, 5, 6, 7	2, 3, 22	1, 2, 6
FCNT429	Milk & M. Products Hygiene and Technology -B	75	3	2	5	20, 21, 32	2, 3, 4, 5, 6, 7	15, 22	1, 2, 6, 7
FMDT430	Forensic Medicine, Toxicology and Vet Procedures -B	60	2	2	4	17, 30	2, 3, 4, 5, 6, 9	2	1, 2, 6
PATH431	Pathology (Morbid Anatomy)-B	60	2	2	4	16, 18, 33	2, 3, 4, 5, 6, 7, 9	3, 7, 18	1, 2, 6
	Total	495	17	16	33				



جامعة الزرقاء
كلية الطب البيطري
وحدة ضمان الجودة

5-9 Fifth year- Semester I

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect .	Lab .	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
THER532	Obstetric and AI-A	60	2	2	4	5, 12, 13, 14, 15, 25, 31	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 4, 6, 8, 9, 11, 13, 17	1, 2, 4, 6
SANR533	Special Surgery and Radiology-A	60	2	2	4	15, 19, 31	1, 2, 3, 4, 6, 7, 8, 9	1, 2, 3, 4, 6, 8, 9, 11, 12, 13, 17	1, 2, 4, 6, 7
ANME534	Special Internal Medicine -A	60	2	2	4	10, 13, 15, 19, 31	1, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 9, 11, 16, 17	1, 2, 3, 6
VTPH535	Animal, Poultry & Environmental Hygiene -A	75	3	2	5	22, 26, 27, 28, 29, 32, 33, 34	2, 3, 4, 5, 6, 7, 8, 9	10, 18, 22	1, 2, 4, 5, 6, 7
ANME536	Infectious Diseases -A	60	2	2	4	15, 19, 25	1, 2, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 7, 9, 11, 12, 13, 16, 21	1, 2, 4, 5, 6, 7
AVRM537	Avian & rabbit Diseases-A	60	2	2	4	10, 13, 15, 16, 19, 24, 25, 26, 33	1, 2, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 7, 9, 11, 13, 16, 18, 21	1, 2, 4, 5, 6, 7
FCNT538	Meat & M. Products Hygiene and Technology -A	75	3	2	5	20, 21, 23, 32	2, 3, 4, 5, 6, 7, 9	7, 15, 22	1, 2, 5, 6, 7
ZOON539	Zoonoses -A	45	2	1	3	1, 15, 16, 22, 25, 27, 34	2, 3, 4, 5, 6, 7, 8, 9	2, 10, 13	1, 2, 3, 5, 6, 7
	Total	495	18	15	33				



جامعة الزقازيق
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5-10 Fifth year -Semester II

Code No	Course title	Total Contact hours	No. of hours / week			Programme ILOs covered (by No.)			
			Lect.	Lab.	Total	K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
THER532	Obstetric and AI-B	60	2	2	4	5, 12, 13, 14, 15, 25, 31	1, 2, 3, 4, 5, 6, 7, 8, 9	3, 4, 6, 8, 9, 11, 13, 17	1, 2, 4, 6
SANR533	Special Surgery and Radiology-B	60	2	2	4	15, 19, 31	1, 2, 3, 4, 6, 7, 8, 9	1, 2, 3, 4, 6, 8, 9, 11, 12, 13, 17	1, 2, 4, 6, 7
ANME534	Special Internal Medicine - B	60	2	2	4	10, 13, 15, 19, 31	1, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 9, 11, 16, 17	1, 2, 3, 6
VTPH535	Animal, Poultry and Environmental Hygiene -B	75	3	2	5	22, 26, 27, 28, 29, 32, 33, 34	2, 3, 4, 5, 6, 7, 8, 9	10, 18, 22	1, 2, 4, 5, 6, 7
ANME536	Infectious Diseases -B	60	2	2	4	15, 19, 25	1, 2, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 7, 9, 11, 12, 13, 16, 21	1, 2, 4, 5, 6, 7
AVRM537	Avian & rabbit Diseases-B	60	2	2	4	10, 13, 15, 16, 19, 24, 25, 26, 33	1, 2, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 7, 9, 11, 13, 16, 18, 21	1, 2, 4, 5, 6, 7
FCNT538	Meat & M. Products Hygiene and Technology -B	75	3	2	5	20, 21, 23, 32	2, 3, 4, 5, 6, 7, 9	7, 15, 22	1, 2, 5, 6, 7
ZOON539	Zoonoses -B	45	2	1	3	1, 15, 16, 22, 25, 27, 34	2, 3, 4, 5, 6, 7, 8, 9	2, 10, 13	1, 2, 3, 5, 6, 7
	Total	495	18	15	33				



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5-11 Third year- Summer Training

Code No	Course title	Total Contact hours	Programme ILOs covered (by No.)			
			K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
PATH340	General Pathology-T	40	10, 16, 18	2, 3, 4, 5, 6, 7, 9	3	1, 2, 3
BAMI341	Bacteriology, Mycology and Immunology-T	40	16, 17	2, 3, 4, 5, 6, 7	2, 13, 22	1, 2, 6
NCNT342	Nutrition & Clinical Nutrition-T	40	10	3, 4, 5, 9	2	1, 2
PHAR343	Pharmacology-T	40	15, 19, 20	3, 4, 5, 9	11, 22	1, 2, 6
PARA344	Parasitology-T	40	16, 17	4	2	1, 2
VIRL345	Virology-T	40	16	4, 5	2, 13, 22	1, 2
	Total	240				



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5-12 Fourth year- Summer Training

Code No	Course title	Total Contact hours	Programme ILOs covered (by No.)			
			K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
THER446	Gynecology and obstetrics-T	30	5, 12, 13, 14, 15, 19, 25, 31	1, 2, 3, 4, 5, 6, 7, 8	3, 4, 6, 8, 9, 11, 13, 17	1, 2, 4, 6
SANR447	General Surgery and Anesthesia-T	30	15, 19, 31, 33	1, 2, 3, 4, 6, 7, 8, 9	1, 2, 3, 4, 6, 8, 9, 11, 12	1, 2, 4, 6
ANME448	General Internal Medicine-T	30	13, 15, 19, 31	1, 3, 4, 5, 6, 7, 8, 9	1, 3, 4, 12, 16	1, 2, 6
FDMN449	Fish Diseases and Management-T	30	1, 10, 13, 15, 16, 19, 24, 25	1, 2, 3, 4, 5, 6, 7, 8	2, 3, 4, 7, 9, 10, 11, 13	1, 2, 4, 5, 7
CLPA450	Clinical Pathology-T	30	16, 18	2, 3, 6, 7	2, 3, 22	1, 2, 6
FCNT451	Milk & M. Products Hygiene and Technology-T	30	20, 32	2, 3, 4, 5, 6, 7	15, 22	1, 2, 6
FMDT452	Forensic Medicine, Toxicology and Vet Procedures-T	30	17, 30	2, 3, 4, 5, 6, 9	2	1, 2, 6
PATH453	Morbid Anatomy-T	30	16, 18, 33	2, 3, 4, 5, 6, 7, 9	3, 7, 18	1, 2, 6
	Total	240				



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5-13 Fifth year – Summer Training

Code No	Course title	Total Contact hours	Programme ILOs covered (by No.)			
			K.U (a)	I.S (b)	P.S (c)	G.T.S (d)
THER554	Obstetric and AI-T	30	5, 12, 13, 14, 15, 25, 31	1, 2, 3, 4, 5, 6, 7, 8	3, 4, 6, 8, 9, 11, 13, 17	1, 2, 4, 6
SANR555	Special Surgery and Radiology-T	30	15, 19, 31, 33	1, 2, 3, 4, 6, 7, 8, 9	1, 2, 3, 4, 6, 8, 9, 11, 12	1, 2, 4, 6
ANME556	Special Internal Medicine-T	30	10, 13, 15, 19, 31	3, 4, 5, 7, 8, 9	2, 3, 4, 9, 11, 16, 17	1, 2, 3, 6
VTPH557	Animal, Poultry and Environmental Hygiene-T	30	29, 34	3, 4, 7, 8	10	1, 2, 6
ANME558	Infectious Diseases-T	30	15, 25	2, 3, 8, 9	2, 3, 4, 11, 12, 16	2, 4, 6
AVRM559	Avian & rabbit Diseases-T	30	19, 24, 25	2, 3, 4, 7, 8, 9	11, 16, 21	1, 2
FCNT560	Meat & M. Products Hygiene and Technology-T	30	23, 32	4, 6, 7, 9	15, 22	1, 6
ZOON561	Zoonoses-T	30	16, 22, 34	2, 3, 4, 8	2, 10, 13	1, 2
	Total	240				



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6 - Programme admission requirement:

The student could admit joining the Bachelor of Veterinary Medical Sciences programme if he/she has one of the following:

- 1) The general Secondary school certificate, science branch with the grades stated by the Central Admission Office.
- 2) A percentage of students enrolled are holders of the equivalent certificates such as the American Diploma and IGCSE.
- 3) A percentage of students from Arab countries with the equivalent grades determined by the Ministry of Higher Education, Central Admission office in the same academic year.
- 4) Students can be transferred from equivalent governmental universities with a condition of minimum good grades and if health and social status necessitate this transfer.

7 – Teaching and learning methods

7.1- Lectures

- The syllabus is distributed on staff members in department council and illustrated onsite using different teaching methods including blackboard, Overhead projector and Data show.

7.2- Practical training / laboratory

A practical session was supervised by professors. Lectures give the basis and then students were divided into groups who were supervised by assistant staff all over the session.

7.3- Other teaching methods

Case studies, E-Learning, hospital cases, field trips and visits.

7.4- Teaching and learning methods for students facing difficulties



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According to Faculty council decree on 12/4/2010, the department will apply special procedures to explore and help the students who face difficulties to achieve the required knowledge and skills related to pharmacology through additional lectures and/or practical sessions.

- Rapid revision of discussed topics
- Open discussion

Make the official hours more effective

8. Assessment of Student Learning

- 1). Assessment methods measure student performance in all of the professional competencies in accordance with the stated outcome expectations.
- 2). Basis on which Assessment of Student Achievements are evaluated by periodic quizzes, formal written examination, summative practical assessment, laboratories and other written reports, problem-solving exercises, oral examination and oral presentations
- 3). For each course, a final written examination is held at the end of each semester, with a score of 50% of the course's assessment scores, in addition to an oral and practical (50%) exams. The student must attend 75% of all the lectures and practical hours of the course in order to be allowed to enter the final exam of the course.
- 4). A student is not considered successful in any subject unless he obtains at least 30% of the grade assigned to the written examination in the course or subject.

9. Regulations for progression and programme completion.

The policy of student retention and progression are determined according to the University regulations. Promotion to the next year requires that student passes either without failed courses or with not more than two failed courses. Students transferred with failed courses must enter make up exam in these courses in proper semester. However, the final year students who have failed in one/two courses will get their make-up exam in the same year. After four successive opportunities for recite in failed course, the student will become external then when succeed return to regular automatically.



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8 - Evaluation of programme intended learning outcomes:

Evaluator	Tool	Samples
1- Senior students	Questionnaires and open discussion	50/ Grade
2- Alumni	Questionnaires and open discussion	25
3- Stakeholders (Employers)	Questionnaires and open discussion	Random
4- External Evaluators	Report	-
Other (External examiners)	Report	-

Program coordinator

Prof. Dr. Mohamed El-Sayed Mohamed

Vice Dean for Education and Student Affairs

Dean of the Faculty

Prof. Dr. Nasr Abd El-Wahab Mohamed

Date of approval:

