



**Zagazig University**  
**Faculty of Veterinary Medicine**

**Programme Specification**  
***Bachelor of Veterinary Medical Sciences***  
***(BVMSc)***

**(2013-2014)**

**Faculty Council 20-29/10/2014**



## **Programme Specification (2013-2014)**

**Zagazig University**

**Faculty of Veterinary Medicine**

### **Programme specification**

#### **Basic information**

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

2- **Programme type:** Single

3- **Departments:**

#### **A- Faculty Departments**

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



## **B- External Institutions**

- i. ELP Centre of Zagazig University "English Language and Terminology" (ENLA 108)
- ii. Faculty of Science:  
Department of Physics "Biophysics" (BPHY 109)
- iii. Human rights (HURT 110): Faculty of law

**C- Coordinator:** Prof. Dr. Magdey Sharf El-Sayed (Faculty Dean).

**D- External evaluator:** Committee nominated by quality management center, Zagazig University, 2014 reviewed the program and course specification and reports.

## **6- Last date of programme specification approval:**

**6.1-** 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.

**6.2-** 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).

## **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.
3. Combine 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. Promote 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. Be aware 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.
- 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- Be familiar with 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- Be acquainted with 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- Spot 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, slaughter houses and storage of meat and its products.
- a.24- Recognize avian, rabbit and fish diseases and their prophylactic and control measures.



- a.25- Be aware of management and prevention strategy decisions against diseases.
- a.26- Be familiar with 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- Be aware of laws and ethical codes relevant to animal and food hygiene (meat and milk products).
- a.33- Be acquainted with 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- Be familiar with the basics of communication skills and human rights.

## **b - Intellectual skills**

The Zagazig Veterinary Medicine graduates must be able to:

- b.1- Highlight important clinical questions stemming from a case interaction.
- b.2- Assess and critique based on an understanding of available data.
- b.3- Evaluate scientific as well as clinical information and critically analyze conflicting data and hypotheses.
- b.4- Select from different choices.
- b.5- Conclude and discuss the scientific approach.
- b.6- Have a commitment to ongoing learning and self evaluation.
- b.7- Specify problems and find solution.
- b.8- Select 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.
- 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.





### **3.2- Comparison of provision to external references:**

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

<b>Knowledge and understanding</b>	
<b>NARS</b>	<b>BVMSc Programme ILOS</b>
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 21, 22, 23, 28, 30, 35
<b>Intellectual Skills</b>	
<b>NARS</b>	<b>BVMSc Programme ILOS</b>
1	b 1, 3
2	b 2
3	b 4, 5, 7
4	b 8, 9
5	b 1, 6
<b>Professional and practical skills</b>	
<b>NARS</b>	<b>BVMSc Programme ILOS</b>
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
<b>General and transferable Skills</b>	
<b>NARS</b>	<b>BVMSc Programme ILOS</b>
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 :**

<b>Science</b>	<b>Number of hours</b>
Biophysics	60
Biochemistry	180
Biostatistics	60
Animal and poultry behaviour and management	120
Anatomy	270
Histology	150
Physiology	240
<b>Total</b>	<b>1080</b>

Percentage of basic sciences: 21.6 %



- **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
<b>Total</b>	<b>1245</b>

Percentage of pre-clinical sciences: 24.9 %

- **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
<b>Total</b>	<b>1530</b>

Percentage of clinical sciences: 31.2 %

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



- **Training :**

Number of hours: 720

Percentage of training: 14.4 %

- **Computer and ICT :**

ICDL isn't required to obtain a bachelors 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.

- **Humanities:**

Science	Number of hours
English	30
Veterinary economics farm management	60
Human rights	30
<b>Total</b>	<b>120</b>

Percentage of humanities: 1.2 %

- **Discretionary subjects :**

Science	Number of hours
Animal breeding and production	150
Clinical pathology	120
<b>Total</b>	<b>270</b>

Percentage of Discretionary subjects: 5.4 %

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



NARS			BVMSc academic standards		
Subject	Range	Sciences	Percent	Sciences	Remarks
Basic sciences	22-28	Biology, biophysics, chemistry, biostatistics, animal husbandry, <i>embryology</i> , histology, physiology, anatomy	21.6%	Biophysics, biochemistry, biostatistics, 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	24.9%	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	31.2%	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	Lower than NARS*



Continue

Training*	2-6	Field trips and clinical investigations	14.4%		More than NARS**
Computing and ICT	1-3	Computer sciences and application IT			***
Humanities	2-4	English, economics, human rights and social studies	1.2%	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	5.4	Clinical pathology, animal breeding and production	Within the range

\* Justification: Summer training in Faculty AS is 14.4% while in NARS 2-6%. The approximately 12.4% excess in training plus 31.2% clinical sciences approximately 43.6% will be within NARS range of clinical science.

\*\* 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 bachelors 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.



#### **4 - Curriculum structure and content.**

4.a) Programme duration: 5 years.

4.b) Programme structure :

##### **A- No. of contact hours**

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

##### **B- Summer Training**

<b>Academic year</b>	<b>Total hours</b>
3 <sup>rd</sup> year	240
4 <sup>th</sup> year	240
5 <sup>th</sup> year	240
Total	720

##### **Contact hours/ week**

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



**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      %: 1.2**  
**4.bv- No of contact hours of specialized:**      **No: 2805      %:56.2**  
**4.bvi- discretionary subjects:**      **No: 270      %: 5.4**  
**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
<b>First Year</b>	ANEM101	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
	BPHY109	Biophysics	60	1.40
	HURT 110	Human rights	30	0.70
Total			780	

Academic year	Code No	Course title	Total Contact hours	Percentage
<b>Second Year</b>	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	





Academic year	Code No	Course title	Total Contact hours	Percentage
<b>Third Year</b>	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
<b>TOTAL</b>			<b>855</b>	

Academic year	Code No	Course title	Total Contact hours	Percentage
<b>Fourth Year</b>	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
<b>TOTAL</b>			<b>990</b>	

Academic year	Code No	Course title	Total Contact hours	Percentage
<b>Fifth Year</b>	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
<b>Total</b>			<b>990</b>	



## 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				



### 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	30	2	-	2	35	2, 6	-	2
	Total	390	15	11	26				



### 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				



#### 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				



**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				



### 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				



### 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 (Morbidity 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				





### 5-8 Fourth 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)	LS (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 (Morbidity 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				



### 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				



### 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)
THR532	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				



### 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				



### 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, 9	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				



### 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, 9	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	1, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 9, 11, 16, 17	1, 2, 3, 6
VTPH557	Animal, Poultry and Environmental Hygiene-T	30	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
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, 7
ZOON561	Zoonoses-T	30	16, 22, 34	2, 3, 4, 8	2, 10, 13	1, 2
	Total	240				



## **6 - Programme admission requirement:**

The student could admit to join 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 - 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.



## **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. Magdey Sharf El-Sayed**

**Faculty Dean**

**Date: 27/10/2014**