

جامعة لشطرة  
كاية الطب البيطري

الوصف – الاكاديمي- لفرع الفسلجة

## TEMPLATE FOR PROGRAMME SPECIFICATION

### HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

#### PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the programme.

1. Teaching Institution	Ministry of Higher Education and scientific research
2. University Department/Centre	University of Baghdad College of Veterinary Medicine/ Department: physiology and pharmacology
3. Programme Title	Bachelor in general veterinary medicine and surgery
4. Title of Final Award	Bachelor in general veterinary medicine and surgery
5. Modes of Attendance offered	Two Terms / yearly
6. Accreditation	
7. Other external influences	Non
8. Date of production/revision of this specification	
9. Aims of the Programme	
1- The program established a set of academic standards that veterinary students should fulfill before their graduation. The aim of these standards is to ensure the acquirement of the minimum required professional skills by the students before their graduation.	
2The programme provides, in the early years, a broad-based knowledge and understanding -of the range of Biomedical subjects,	
3The wide range of courses offered in the study years allows students to specialize in particular	

areas within a discipline or cover a broad curriculum.-

Most importantly courses are designed specifically around the research interests of the academic staff thereby introducing some of the major biomedical and veterinary issues and controversies of the day.

## 10. Learning Outcomes, Teaching, Learning and Assessment Methods

### A. Knowledge and Understanding

A1. Knowledge of basic concepts in animal health and nutritional status of an animal and be able to advice on appropriate husbandry and feeding.

A2. Knowledge of basic concepts in animal production

A3. Knowledge of basic concepts in animal handling and restrain animals safely and humanely whilst ensuring personal safety and that of others in the vicinity.

A4. Knowledge and familiarity with diseases diagnosis and treatment

A5. Knowledge and Familiarity with the practice of surgical and obstetric

A6. Familiarity with some moral values, social and religious

### B. Subject-specific skills

B1. Communicate effectively with the public, professional colleagues and appropriate authorities.

B2. Work in a professional manner with regard to the veterinarian's professional and legal responsibilities and understand and apply the ethical codes.

B3. Respond appropriately to the influence of economic and emotional pressures

B4. Provide emergency care to all species of animals.

### Teaching and Learning Methods

1-Establishment of a clear mission for each of the related clinical subjects.

2-Description of detailed course specification of each of the related clinical subjects with clear course contents, intended learning outcomes, methods of assessment, grading system and sources of teaching.

3-Description of recent methods teaching and student learning.

4-Description of methods of students' assessments in relation to the described intended learning outcomes.

### Assessment methods

Examinations :-

Time Schedule

Grading system

Self-learning assignment

## Evaluation of small group learning

### C. Thinking Skills

- C1. Thinking and problem-solving method of use
- C2. The ability to achieve commitment and responsibility and leadership towards excellence and creativity in the field of profession
- C3. the ability to perceive relationships and link them in different positions
- C4.

### Teaching and Learning Methods

- 1- Lectures
- 2- Practical sections
- 3- Field conveyes
- 4- Samanarat
- 5- Discussion groups
- 6- Teamwork

### Assessment methods

Description of recent methods teaching and student learning.  
 Description of methods of students' assessments in relation to the described intended learning outcomes  
 Short tests  
 Questions of dialogue and discussions within lectures  
 .Assigning student research work related to the decision  
 Try to know the student's mistakes and corrected him

### D. General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Acquire the skills to use laboratory equipment and pathological analyzes, Collect, preserve and transport samples; perform standard practice laboratory techniques; interpret laboratory results (and results of other ancillary diagnostic aids) and integrate with clinical information.
- D2. Work effectively as a member of a multi disciplinary team in the delivery of services to clients and employers.
- D3. The acquisition of skills in project management
- D4. Demonstrate a practical ability to apply knowledge of disease processes within a clinical environment.

### Teaching and Learning Methods

From an early stage, the concurrent demands of different components of the programme encourage the development of effective planning.

.Assigning student research work related to the decision-

Try to know the student's mistakes and corrected him

Through engaging with the programme of work within the degree programme

### Assessment Methods

Recognize their own limitations; recognize when to seek assistance and understand the protocols for dealing with second opinions.

Produce reports in a form that is satisfactory and understandable to the intended audience.

Examination of their respond appropriately to the influence of economic and emotional pressures.

11. Programme Structure				12. Awards and Credits
Level/ Year	Course or Module Code	Course or Module Title	Credit rating	
first	Anatomy Animal management Chemistry Computer Biology English language	ANT ANM CHM1401 COM BIO ENG		Bachelor Degree Requires ( x ) credits
Second	Anatomy Histology Animal nutrition Biochemistry Physiology Genetics	ANT HIS ANN BCH2402 PHY2502		
Third	Microbiology Pathology Parasitology Pharmacology Immunology Toxicology	MIC PAT PAR PHR3402 IMN TOX3201		

Fourth	Surgery Poultry diseases Clinical pathology Theriogenology Medicine Infectious diseases &epidemiology	SUR POU CLP THE MED INF		
Fifth	Clinic Veterinary public health Fish diseases Obstetric Surgery Research project	CLN VPH  FDS OBS SUR RES		

### 13. Personal Development Planning

Prepare a generation able to follow each new.

Conduct themselves in a professional manner with regard to the veterinarian's professional and legal responsibilities and understand and apply the ethical codes.

Foster and maintain a good professional relationship with clients and colleagues, developing mutual trust and respecting their professional views and confidentiality.

Personal development arises as a consequence of interactions with other students, staff and the students' academic advisors.

The ability to work in large or small groups and the collaborative skills required when working with unfamiliar colleagues is a feature of group work in some of the larger courses in earlier years.

### 14. Admission criteria .

According to central Acceptance

### 15. Key sources of information about the programme

- 1- Establishment of a clear mission and vision for the faculty to ensure the main objectives of the intended development programs
- 2-Description of detailed course specification of each of the related clinical subjects with clear course contents, intended learning outcomes, methods of assessment, grading system and sources of teaching.
- 3- Reference to the instructions regarding the University of Baghdad vocabulary curriculum and instruction exams





## TEMPLATE FOR COURSE SPECIFICATION

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### COURSE SPECIFICATION

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1. Teaching Institution	
2. University Department/Centre	College of Veterinary medicine
3. Course title/code	Animal physiology / PHY2502
4. Programme (s) to which it contributes	Bachelor in general veterinary medicine and surgery
5. Modes of Attendance offered	
6. Semester/Year	Tow semester/ year
7. Number of hours tuition (total)	course of 5 credits ,theory :4 hours ,practical 2hours / week. in a total of 15 weeks/ semester= 180 hours/year
8. Date of production/revision of this specification	1//4/ 2014
9. Aims of the Course	
This course is designed so that the student of second year will achieve a general understanding about:-	
normal functions of different systems in mammals and poultry -	
Normal behavior of animals	
knowledge and understanding of the normal physiological basis of organ function and homeostasis	

The laboratory portion of this course will emphasize introductory exercises, experimental techniques, and data collection of physiological variables

## 10. Learning Outcomes, Teaching ,Learning and Assessment Methode

### A- Knowledge and Understanding

A1.The student will have a comprehensive knowledge and understanding on normal functions of cell organelles

A2.Functions of different body systems and interaction between them during different physiological conditions

A3. Knowledge about the interaction between body systems during different physiological conditions

A4. The interaction responses between different body systems during different non physiological conditions

A5Know the type and methods of completion .Laboratory tests for different body systems

A6 .How to read and analyze the laboratory tests results

### B. Subject-specific skills

B1. Creative thinking to improve reproductive performance in animals.

B2. Analysis of laboratory blood and urine tests.

B3.

### Teaching and Learning Methods

Lectures and practical of every topic in the course.  
Collection of some information from textbooks.

### Assessment methods

-1Examination:

Written mid-term

Written final –term

Practical final –term

Oral Examination

Course assessment weight for annual system (100%)

First semester		Second semester		Final Examination	
Theoretical	Laboratory work	theoretical	Laboratory work	theoretical	Laboratory work
15%	% 13	% 11	% 13	%23	%33

2- daily evaluation

3- Reports writing

### C. Thinking Skills

- C1. Collection and handling of laboratory: equipments, chemicals, and animals
- C2. Use of new technology
- C3. Group working, good management and problem solving ability.
- C4. Performing practical experiments

### Teaching and Learning Methods

- Engaging students in discussion during lesson
- Testing process and report writing
- Provide an opportunity to work through the practical lesson

### Assessment methods

- Duties in report writing
- Accustom the student to devise a scientific analysis of the information

### D. General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Good communication
- D2. Use of new technology
- D3. Group working, good management and problem solving ability.
- D4. Handling of blood samples

## 11-Course content

1<sup>st</sup> Semestar

Unit/Module or Topic Title	Practical topics	Hours		
		No.of hours	lecture	practical
Cell physiology	Introduction operation of physiographic equipment. Muscle and nerve preparation	14	8	4
Physiology of Nerve and muscle	The simple muscle twitch	6	4	2
Autonomic Nervous system	Skeletal muscle contraction		8	4
Cardiovascular System	Frog's heart ECG Blood pressure		13	6
Mid. Term examination				
Digestive system	Small intestine smooth muscle contraction Reflexes of digestion		12	2
Body fluids:- blood physiology and hemostasis	Blood sample collection & smear preparation RBCs count PCV, Hb, and erythrocytes indices Total WBCs count Fragility test Bleeding disorders tests Platelets count ABO		14	12
2 <sup>nd</sup> semester				
Renal system	Farm visit		10	2
Respiratory System	Chest examination . lung function tests		10	4
Acid- base balanc			2	-
Endocrine system	Practical exam		10	2
<u>Mid- term exam.</u>				
Male Reproductive	Evaluation of seminal fluid		6	4

system				
Female reproductive system	Estrus cycle		6	4
CNS physiology and sensation	Reflexes Effects of exercise and gravity on HR, BP, and respiration. Sensory physiology		12	6
	Final examination			

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	Course Notes (By Staff Members) Swenson M. J. and Reece W. O. (1993): Duke's Physiology of Domestic Animals. 11th Ed., Ithaca, NY, Cornell Univ. Press Guyton A. C and Hall J. E. (1996): Textbook of Medical Physiology. 9th Ed., W.B. Saunders CO.
Special requirements (include for example workshops, periodicals, IT software, websites)	Laboratory devices & equipments Data show, Screen, new references in library
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	
Maximum number of students	

## TEMPLATE FOR COURSE SPECIFICATION

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1. Teaching Institution	
2. University Department/Centre	College of Veterinary medicine
3. Course title/code	Biochemistry/ BCH 2 402
4. Programme (s) to which it contributes	in general veterinary medicine and surgery
5. Modes of Attendance offered	

6. Semester/Year	Tow semester/ year
7. Number of hours tuition (total)	course of 4 credits ,theory :3hours ,practical 2hours / week. in a total of 15 weeks/ semester = 150 hours/year
8. Date of production/revision of this specification	1//4/ 2014
9. Aims of the Course	
biochemistry to undergraduate students to make them understand the scientific bases of life processes at the molecular level and to orient them towards the broad goal of application of knowledge acquired in solving clinical problems	

10. Learning Outcomes, Teaching ,Learning and Assessment Methods
<p>A- Knowledge and Understanding</p> <p>A1.Ability to describe molecular and functional organization of the cell and list its sub cellular components .</p> <p>A2.Delinate structures, functions, and interrelation ship of bimolecular and consequences of deviation from normal.</p> <p>A3.Integrate various aspect of metabolism and their regulatory pathways.</p> <p>A4.summerize the fundamental aspect of enzymology.</p> <p>A5.Suggest experiments to support theoretical concepts and clinical diagnosis.</p> <p>A6 .outline biochemical bases of genetic material and mechanisms of genexpresion</p>
<p>B. Subject-specific skills</p> <p>B1.Make use of conventional teqniques – instruments to perform biochemical analysis relevant to clinical screening and diagnosis.</p> <p>B2.Analyse and interpret investigative data.</p> <p>B3.Methods of detection of normal constituents of biological fluid in the body</p> <p>B4- demonstrate the skills of solving scientific and clinical problems and dissection making.</p>
Teaching and Learning Methods
<p>Lectures</p> <p>Practical experiments</p> <p>Report and data analysis</p>

### Assessment methods

#### -1Examination:

Written mid-terms

Written final –term

Practical final –terms

Oral Examination

Course assessment weight for annual system (100%)

First semester		Second semester		Final Examination	
theoretical	Laboratory work	theoretical	Laboratory work	theoretical	Laboratory work
5%	% 13	% 11	% 13	% 23	% 33

#### 2- Quizzes

#### 3- Reports writing and home duties

### C. Thinking Skills

C1.Suggest a scientific problem and trying to resolve it

C2.Linking of theoretical with practical knowledge

C3.Working in teams to perform and analyze experiments

C4.Widen the ability to discuss and make a decision

### Teaching and Learning Methods

Using recent illustrating tools for teaching and scientific films . Perform oral examinations and scientific discussion

### Assessment methods

Groups discussion

Reports writing

### D. General and Transferable Skills (other skills relevant to employability and



personal development)

D1 Laboratory manipulation

D2. General knowledge of handling of chemicals and laboratory equipments

D3. Clinical evaluation of diseased condition

D4.

11- course contents			
1 <sup>st</sup> semestar			
Unit/Module or Topic Title	Practical topics	Hours <sup>1</sup>	
		lecture	practical
Cell biochemistry	<b>General instruction</b>	4	2
Enzyme :mechanism of action, kinetic, regulation	<b>Carbohydrate</b>	6	2
Hormones: hormone action ,signal transduction	<b>General qualitative tests</b>	4	2
biological oxidation, oxidative phosphorylation	<b>proteins</b>	4	4
Mid. Term examination	<b>Unknown of carbohydrates</b>		2
CHO metabolism, glycolysis ,Gluconeogenesis, Pentose phosphate pathway	<b>Determination of optimum Ph and temperature of <math>\alpha</math>-amylase enzyme</b>	1	4
TCAcycle,catabolism of acetyl CoA	<b>Urine sample analysis</b>	4	2
Glycogenesis, Glycogenolysis	<b>Normal and abnormal constituents of urine</b>	3	4
Metabolism of CHO in ruminants	<b>Unknown of urine</b>	4	2
Vitamins	<b>Paper chromatography</b>	8	4
2 <sup>nd</sup> semestar			
Lipids : oxidation of fatty acid ,ketogenesis ,biosynthesis of fatty acids	<b>Photometric methods in biochemical analysis</b>	6	2
Cholesterol synthesis ,transport & excretion	<b>Determination of serum total protein</b>	4	2
Metabolism of lipids in ruminants	<b>Determination of serum amylase activity</b>	4	2
Anabolism & catabolism of protein & amino acids	<b>Determination of serum total calcium</b>	4	2
Nucleotides & nucleic acid	<b>Determination of serum creatinine</b>	3	2

structure & function			
Metabolism of nucleotides	Determination of serum uric acid and urea	3	4
RNA synthesis process ,modification	Determination of serum bilirubin	3	2
Mid. Term examination	Examination		2
DNA organization replication & repair. Protein synthesis & the genetic code.	Separation of lipids from phospholipids	4	2
Free radical and antioxidants	Determination of serum cholesterol	4	2
Metabolism of Na <sup>+</sup> , K <sup>+</sup> & Ca <sup>++</sup>	Enzymatic method for glucose	4	2
	Determination of serum total lipid		2

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	<b>Harper`s illustrated biochemistry; Murray et al</b>  <b>Biochemistry – An Introduction Mckee and Mckee</b>
Special requirements (include for example workshops, periodicals, IT software, websites)	Laboratory devices & equipments Data show, Screen, new references in librar
Community-based facilities (include for example, guest Lectures , internship , field studies)	

### 13. Admissions

## TEMPLATE FOR COURSE SPECIFICATION

### HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

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1. Teaching Institution	
2. University Department/Centre	College of Veterinary medicine
3. Course title/code	General chemistry / CHM1401
4. Programme(s) to which it contributes	Bachelor in general veterinary medicine and surgery
5. Modes of Attendance offered	
6. Semester/Year	One semester/ year
7. Number of hours tuition (total)	course of 4 credits ,theory :3hours ,practical 2hours / week. in a total of 15 weeks/ semester= 75 hours/year
8. Date of production/revision of this specification	1//4/ 2014
9. Aims of the Course	
Study of general chemistry involves inorganic ,analytica ,organic chemistry and	

biochemistry

## 10. Learning Outcomes, Teaching ,Learning and Assessment Methods

### A- Knowledge and Understanding

A1.Principles of general chemistry

A2.Knowledge of analytical, in-organic, organic chemistry

A3.Knowledge in handling and preparation of chemical solutions

A4.Knowledge in dangerous of chemicals and Occupational Safety

A5.

A6 .

### B. Subject-specific skills

B1.Methods of chemical solutions preparation

B2.Methods of different chemical reaction including titration and precipitation

B3.Handling of laboratory equipment and instruments

### Teaching and Learning Methods

Lecturing

Home Duties

Qualitative and Quantitative analysis experiments

### Assessment methods

-1Examination:

Written mid-term

Written final –term

Practical final –term

Oral Examination

Course assessment weight for annual system (100%)

Mid . term		Final Examination	
theoretical	Laboratory work	theoretical	Laboratory work
%21	%11	%23	%43

- 2- daily evaluation
- 3- Reports writing

#### C. Thinking Skills

- C. Knowledge and careful dealing with chemicals
- C2. Discrimination between chemical materials on the basis of Occupational Safety
- C3. Problem resolution
- C4. Work in team

#### Teaching and Learning Methods

#### Duties in report writing

- Accustom the student to devise a scientific analysis of the information

#### Assessment methods

- Feed back evaluation
- Small group discussion

#### D. General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Practical skills
- D2. Dealing and handling with computer and other laboratory equipment
- D3. Experience in chemicals Occupational Safety
- D4.

11. Course Structure					
1st Semester					
Week	Unit/Module or Topic Title	Laboratory Work	Hours		
			No.of hours	Lectures	Practical
1	Atom and electronic structure	Laboratory glass ware and techniques			
2	Types of chemical bonds	Qualitative analysis of cations			
3	Acid – Base theory	Analysis of a mixture of groups (1) ions			
4	Volumetric analysis titration of acid with base	Titration of strong acid with strong base			
1	Organic chemistry	Analysis of a mixture of NaOH and $\text{Na}_2\text{CO}_3$			
6	Alkenes and alkynes Aromatic compounds	Standardization of HCl solution with standard solution of $\text{Na}_2\text{CO}_3$			
7	Mid. Term examination				
8		Determination of Fe in $\text{FeSO}_4$ Solution			
9	Organichalides, Alcohols and phenols	Determination of normality of $\text{KMnO}_4$ solution			
13	Aldehydes and ketones	Precipitation , titration : Determination of chloride by mohl method			
11	Carboxylic acids	Determination of the strength volume of $\text{H}_2\text{O}_2$ solution			
12	Anhydrides, esters, and amides of carboxylic acids	Standardization of $\text{Na}_2\text{S}_2\text{O}_3$ solution			
Required reading:		<ul style="list-style-type: none"> <li>➤ Organic chemistry for students of biology and medicine , G . A. Taylor</li> <li>➤ General chemistry , Ebbing</li> <li>➤ Chemistry of organic compounds , noller 3<sup>rd</sup> . Edition</li> <li>➤ An introduction to chemical analysis walter E. Harris , Byron Kratochvil , 1982</li> </ul>			
Special requirements (include for example workshops, periodicals, IT software, websites)					

Community-based facilities (include for example, guest Lectures , internship , field studies)	
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13. Admissions
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## TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW
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### COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	
2. University Department/Centre	College of Veterinary medicine
3. Course title/code	Pharmacology/ PHR3402
4. Programme(s) to which it contributes	Bachelor in general veterinary medicine and surgery
5. Modes of Attendance offered	
6. Semester/Year	Tow semester/ year
7. Number of hours tuition (total)	course of 4 credits ,theory :3hours ,practical 2hours / week. in a total of 15



	weeks/ semester= 150 hours/year
8. Date of production/revision of this specification	
9. Aims of the Course	
.	

10. Learning Outcomes, Teaching ,Learning and Assessment Methode
<p>A- Knowledge and Understanding</p> <p>A1K.nowledge of principles of pharmacology science</p> <p>A2. Knowledge of clinical orientation of drugs usage in treatment of diseases</p> <p>A3. Knowledge of side and adverse effects of drugs</p> <p>A4. Knowledge of interaction of drugs</p> <p>A5. Knowledge of kinetics of drugs in case of disease and normal</p> <p>A6 .</p>
<p>B. Subject-specific skills</p> <p>B1.Principles of drugs formulation and dosing</p> <p>B2.Preparation of some formulated drugs</p> <p>B3.Handiling of laboratory animals and performing some experiment in pharmacology</p>
Teaching and Learning Methods
<p>Lectures</p> <p>Practical experiments</p> <p>Duties assess and analysis of results</p>
Assessment methods
<p>-1Examination:</p> <p>Written mid-term</p> <p>Written final –term</p> <p>Practical final –term</p>

Oral Examination					
Course assessment for annual system (100%)					
First semester		Second semester		Final Examination	
heoretical	Laboratory work	theoretical	Laboratory work	theoretical	Laboratory work
15%	% 13	% 11	% 13	%23	%33
<p>2- daily evaluation 3- Reports writing</p>					
<p>C. Thinking Skills C1.Linking of theoretical and practical knowledge in pharmacology science C2.Working in team to analysis and perform experiments C3.Ability of discussion data and reaching conclusion C4.</p>					
Teaching and Learning Methods					
<p>Problem learning Quizzes Oral examination</p>					
Assessment methods					
<p>Revision of previous knowledge Feed back evaluation Duties for reports</p>					

D. General and Transferable Skills (other skills relevant to employability and personal development)  
D1.Drug knowledge

D2. Dosing manipulation  
D3. Laboratory animals handling  
D4. Drug formulation and preparations

Week	Unit/Module or Topic Title	Laboratory work	hours
	Principles of pharmacology	-General principle and definition	
	Principles of pharmacology	-Drug forms	
	Principles of pharmacology	-Metrology	
	Drugs acting on autonomic and somatic nervous system	-Dose calculation and Dilution	
	Drugs acting on autonomic and somatic nervous system	Animal handling and different dosing	
	Drugs acting on autonomic and somatic nervous system	Prescription writing and preparation	
	Drugs acting on autonomic and somatic nervous system	Boric acid, Tincture iodine, lugols iodine, Potassium permanganate	
	Drugs acting on central nervous system	Zinc oxide ointment and cream, sulphur ointment.	
	Drugs acting on central nervous system	Antacid powder, linimentum turpentine	
	Drugs acting on central nervous system	Effect of route of administration on the rate of absorption	
	Drug acting on cardiovascular system and	Effect of ionization on absorption of drug (aniline).	
	Drug acting on cardiovascular system and	Chemical analysis of aniline	
	Drug affecting gastrointestinal function	Review	
	Drug affecting gastrointestinal function	Examination.	
	Drug affecting gastrointestinal function	-Role of interaction on metabolism of pentobarbitone in kinetic	
	Autacoids and anti-inflammatory drugs	-role of drug interaction pentobarbitone sleeping effect	
	Autacoids and anti-inflammatory drugs	Anagesics	

	Autacoids and anti-inflammatory drugs	effect of autonomic drug on eye pupil	
	Dermatopharmacology	effect of autonomic drugs on rhythmic motility of isolated rabbit duodenum	
	Chemotherapy of microbial diseases	effect of autonomic drugs on isolated uterus in mice.	
	Chemotherapy of microbial diseases	demonstration of some preparation drugs in large animal.	
	Chemotherapy of microbial diseases	diuretics in sheep	
	Chemotherapy of parastic disease	analysis of urine sample	
	Chemotherapy of parastic disease	cyanide poisoning and treatment.	
	Chemotherapy of parastic disease	LD50safety of drug .	
	Drug affecting renal function and fluid-	-Review	
	Drug affecting renal function and fluid-	Examination.	
	Drug affecting the respiratory system		
	Drug affecting the respiratory system		
	Endocrine pharmacology and hormones		
	Endocrine pharmacology and hormones		
<b>12. Infrastructure</b>			
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER		<b>Lippincotts pharmacology</b> Howland R.D and ycekM.J Lectures	➤
Special requirements (include for example workshops, periodicals, IT software, websites)			

Community-based facilities (include for example, guest Lectures , internship , field studies)	
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### 13. Admissions

## HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

### COURSE SPECIFICATION

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1. Teaching Institution	
2. University Department/Centre	College of Veterinary medicine
3. Course title/code	Toxicology/ TOX 3201
4. Programme(s) to which it contributes	Bachelor in general veterinary medicine and surgery
5. Modes of Attendance offered	
6. Semester/Year	Tow semester/ year
7. Number of hours tuition (total)	course of 2 credits ,theory :2hours / week. in a total of 15 weeks/ semester=

	60 hours/year
8. Date of production/revision of this specification	
9. Aims of the Course	
.	
<p>Aim and mission of toxicology is to identify potential harmful effects of chemical compounds to humans, animals and the environment, and to provide for their prevention and treatment. Appropriate experimentation and expert judgment allow to minimize the probability of the occurrence of adverse effects, which in the past have sometimes been of catastrophic dimension. Toxicology is a multidisciplinary science based upon Physiology, Biochemistry, Molecular Biology, Chemistry, Pharmacology, Pathology, Epidemiology and several others.</p>	

<p>B. Subject-specific skills          B1.Principles of drugs formulation and dosing          B2.Preparation of some formulated drugs          B3.Handling of laboratory animals and performing some experiment in pharmacology</p>			
Teaching and Learning Methods			
<p>Lectures          Practical experiments          Duties assess and analysis of results</p>			
Assessment methods			
<p>-1Examination:          Written mid-term          Written final –term          Practical final –term          Oral Examination          Course assessment weight for annual system (100%)</p>			
Mid. semester		Final Examination	
theoretical	Laboratory work	theoretical	Laboratory work
%21	%11	%23	%43

- 2- daily evaluation
- 3- Reports writing

#### C. Thinking Skills

- C1. Linking of theoretical and practical knowledge in pharmacology science
- C2. Working in team to analysis and perform experiments
- C3. Ability of discussion data and reaching conclusion
- C4.

#### Teaching and Learning Methods

- Problem learning
- Quizzes
- Oral examination

#### Assessment methods

- Revision of previous knowledge
- Feed back evaluation
- Duties for reports

#### D. General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Drug knowledge
- D2. Dosing manipulation
- D3. Laboratory animals handling
- D4. Drug formulation and preparations



11-course contents		
Week	Unit/Module or Topic Title	hours
	<b>Concepts and terminology</b>	2
	<b>Toxicokinetics</b>	2
	<b>Antidotes and general treatment of poisoning</b>	2
	<b>Diagnostic aspects of toxicology</b>	2
	<b>Insecticides</b>	2
	<b>Herbicides</b>	2
	<b>Metals and minerals</b>	2
	<b>Mycotoxins</b>	2
	<b>Feed – associated toxicants</b>	2
	<b>House-hold and industrial products</b>	2
	<b>Plants</b>	2
	<b>Biotoxins</b>	2
	<b>Environmental pollution with toxicants</b>	2
	<b>Pharmaceuticals</b>	2
	<b>Genotoxicology</b>	2

## 12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	<b>Lippincotts pharmacology Howland R.D and ycekM.J</b> Lectures
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures , internship , field studies)	

## 13. Admissions

