



Beni Suez University
Faculty of Veterinary Medicine
Department of Surgery, anesthesiology and Radiology

Program Specification for Diploma
2018-2019

A-Basic information:

- 1- Program title: Diploma in Surgery, Anesthesiology and Radiology**
- 2- Program type: *Single***
- 3- Department offering program: Surgery, anesthesiology and Radiology**
- 4-Academic year: 2018-2019**
- 5-Approval date of Department Council:**
- 6-Approval date of Faculty Council:**
- 7-External evaluator: Prof. Dr. Samy Farghali Ismaiel**

B-Professional information:

1- Overall aims of the program:

The main of this course is introducing the academic background and practical experience about the General and Special surgery, Develop the skills for identification and solving veterinary and related problems of the surrounding community and employment available resources, Consider the need for self-development and engagement in continuous learning, application of the basic principles learned in general surgery, Radiology, diagnosis and therapy of surgical affections

2- Intended learning outcomes of course (ILOs):

a- Knowledge and understanding:

On successful completion of this program the graduate should be able to :

- a.1. Recognize techniques of anaesthesia and analgesia surgical and the anatomical feature
- a.2. Outline the basic principles in dealing with surgical affections and take pathological specimens
- a.3. Recall the basic principles of surgical technique.
- a.4. Evaluate the affection by using Radiological techniques

b- Intellectual skills:

On successful completion of master program the graduate should be able to:

- b.1. Discriminate and analysis of clinical and laboratory findings to reach the accurate diagnosis.
- b.2. Interpret and predict the prognosis and sequelae of surgical affections treatment.
- b.3. Score of suitability of using defined anesthetic techniques.
- b.4. identify areas anatomically where further researches necessary and be aware of any which would be beyond current ethical codes.

c- Professional and practical skills:

On successful completion of this program the graduate should be able to:

- c.1. Assess experience in clinical and laboratory diagnosis of surgical affections
- c. 2. Perform different anesthetic techniques.

d- General and transferable skills:

On successful completion of this program the graduate should be able to:

- d.1 Demonstrate information retrieval and library skills
- d.2 Demonstrate interpersonal skills and team working ability by the successful completion of collaborative learn assignment and the honors researches projects
- d.3. Using the research finding in oral and written from using arrange of appropriate software (e.g., power point , word , excel and data base).

3- Academic standers:

* The faculty mission, vision and strategic objective are confirmed to the academic standard. The learning outcomes are inline with the department and the faculty mission.

* Postgraduates NARS (March 2009) Master degree chapter issued by national authority for quality assurance and accreditation of education (NAQAAE) and Veterinary medicine post graduate academic standards (ARS) for the faculty of veterinary medicine, Beni-Suef University, Beni-Suef, Egypt are selected to confirm the appropriateness of the academic standards .

4- Program Structure and Contents

A- Program duration: At least one academic years from the approval of registration by the Faculty Council and maximum four years. The faculty council has the right to give the applicant another period not exceed two years according to the supervisor request

5- Programme – course ILOS Matrix

Title	a1	a2	a3	a4	b 1	b2	b3	b4	c1	c2	d1	d2	d3	d4
1-Anesthesia	x						x			x		x		x
2-Surgery		x	x					x					x	
3-Radiology				x		x			x		x			
4- Surgical Anatomy	x							x				x		
5-Surgical Pathology		x			x	x			x				x	x

6-Programme admission requirement

- 1- Obtaining a bachelor degree in veterinary medicine sciences from one of the Egyptian universities or equivalent degree from another recognized scientific institute with any grade.
- 2- The bachelor degree must be obtained at least one year prior to registration
- 3- The applicant must have regular attendance in his courses according to the schedule of the faculty.
- 4- Registration will be during September of each year.

7 - Regulations for progression and programme completion.

- 1- Registration period is one year for diploma and the applicant not exceed a period of registration for two year.
- 2- The examinations of the diploma are 2 times / year in December & April.
- 3- The faculty council has the right to deprive the applicant from the exam if his attendance courses are less than 75%.
- 4- In case of failure, the exams will be hold 2 times / year and reexamination in all courses each time.

8-System of examination for postgraduate studies as follow:

- Time of written exams, 3 hours for each curriculum have 3 hours or more for theoretical / practical hours/ week. If the curriculum less than 3 hours / week, the time of ex. is 2 hours only.

□ The final degree of each curriculum which have 3 hours (theoretical & practical) per week is 100 & less than 3 hours 50 degree & divided into 50 % for written ex. and 50 % for practical and oral ex.

9-Grades of graduation are as follow:

Excellent ≥ 90

Very good ≥ 80

Good ≥ 70

Pass ≥ 60

Failed **45 to less than 60 weeks**
Less than 45 very weeks

The programme specification should have attached to it all course specifications listed in the matrix.

Programme coordinator

Head of the Department

Name: Dr.MohamedZakiFathyName:

Prof.Dr.Gamal Abdel Nasser

Signature.....

Signature.....

Date.....



Course specification of postgraduate

1-Basic information

Course Code:	M-168	
Course title :	Anesthesiology	
Program title:	Diploma degree In Veterinary Medical Sciences (Surgery)	
Contact hours/ week	Lecture: 1 h / week	Practical: 1 h / week
Approval Date		

2-Professional information

Overall aims of course:

This course aims to:

1. Introducing the academic background and practical experience about Veterinary Anesthesiology.
2. Introducing the academic background and practical experience about basic principles of using anesthesia in diagnosis, surgical interferences and treatment.

3- Intended learning outcomes of course (ILOs)

A- Knowledge and understanding:

By the end of this course the student should be able to:

- a.1. Recognize types, and uses and indication of different anesthetics.
- a.2. Outline the basic principles in veterinary anesthesiology.
- a.3. Recall the basic principles of anesthetic techniques and their advantages and drawbacks.
- a.4. Describe the relationship between the used anesthetic techniques and materials and surgical interferences.

B-Intellectual skills

By the end of this course the student should be able to:

- b.1. Use of anesthesiology to reach the accurate diagnosis in case of musculoskeletal affections.
- b.2. Interpret and predict the prognosis and sequelae of anesthetic overdose.
- b.3. Score of suitability of using defined anesthetic techniques.
- b.4. Identify areas where further researches necessary and be aware of any which would be beyond current ethical codes.

C- Professional and practical skills

By the end of this course the student should be able to:

- c.1. Assess experience in performing different anesthetic techniques.
- c.2. Selection of the appropriate anesthetic material.
- c.3. Using the new technology in practical portion.
- c.4. Control of anesthetic over dosage.

D- General and transferable skills

By the end of studying the course, the student should be able to:

- d.1 Demonstrate information retrieval and library skills
- d.2 Demonstrate interpersonal skills and team working ability by the successful completion of collaborative learn assignment and the honors researches projects



Course specification of postgraduate

- d.3. present research finding in oral and written form using appropriate software (e.g., power point , word , excel and data base).
d.4. use all types of communications skills.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. 1h./week, Pract. 1h./week)	- Introduction to veterinary anesthesiology	6	3	3
	-Local analgesia	10	5	5
	- Regional analgesia	14	7	7
	-pre anesthetic medication	18	9	9
	- General anesthesia	8	4	4
	- Intraoperative monitoring	16	8	8

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows
5.2- Self learning by preparing essays and presentations (computer researches and library)
5.3- Practical application of advanced surgical technique (models, samples of tissues and data show).
5.4- Self learning by preparing essays and presentations (computer researches and library)

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a1- a2- a3-	b1- b2- b3-	c1- c2- c3- c4	d1- d2
Practical Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3- c4	
Oral Exam	a1- a2- a3-	b1- b2- b3-	c1,c3	d1-d2-d3- d4

7.2. Assessment schedules

Method	Week(s)
Writing exam	December
Practical exam	December
Oral exam	December

7.3. Weight of assessments



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

Assessment	Weight of assessment
Writing exam	50%
Practical exam	25%
Oral exam	25%
total	100%

8- List of references

8.1. Notes and books

- Wright's veterinary anesthesia & analgesia. L.W.Hall.1971

8.2. Essential books:

- Veterinary anesthesia. L.W.Hall.& K.W.Clarke 1983

8.3. Recommended texts

- Small animal anesthesia. Roger.C. Warren. 1983

- Lumb& Jones veterinary anesthesia.Lumb& Jones2015

8.4. Journals, Websitesetc

Journals: Veterinary anesthesiology, Veterinary Clinics of North America.

Websites:

WWW.Science direct

WWW. Pubmed.com

WWW.Scholar google.com

WWW.wellyinterscience

Program coordinator

Name: Dr.Mohamed ZakiFathy

Signature..... Date

Head of the Department

Name: Prof.Dr.Gamal Abdel Nasser

Signature..... Date



Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Anesthesiology		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	- Introduction to veterinary anesthesiology	- 1 st w- 3 th w	1,2,3	1,2,3	1,2,4	1,2,3
2	- Local analgesia	- 4 th w- 8 th w	1,2,3	1,3	1,2,3,4	1,2,3,4
3	- Regional analgesia	- 9 th w- 15 th w	1,2	1,2,3	1,2,3	1,2,3,4
4	- pre anesthetic medication	- 16 th w- 24 th w	1,2	1,2,3	1, 3	1,2,3,4
5	- General anesthesia	- 25 st w- 28 th w	1,2,3	1,2,3	1,2,4	1,2,3
6	- Intraoperative monitoring	- 29 th w- 36 th w	1,3	1,4	1,3,4	1,2,4



BeniSuefUniversity
Faculty of Veterinary Medicine



Beni-Suef University
Faculty of Veterinary Medicine
Department of Pathology

Course specification of postgraduate

1-Basic information

Course Code:	
Course title :	Surgical Pathology
Program title:	Master program scientific
Degree:	Master
Contact hours/ week	4 hours per week (2hr theoretical and 2hr practical)
Date of course approval:	

2-Professional information

Overall aims of course:

This course aims to:

- 1- Identify Pathological changes in relation to damage induced by physical agents, superficial infections, regeneration and healing, malformations, tissue grafting and organ transplantation.
- 2- Acquire the ability to plan for an experiment in the field of surgical pathology and understand Mechanism, by which the disease developed, progressed and squealed
- 3- Understand the mechanisms of pathological alterations and aware with tissue specimen's preparations and full description to macroscopic and microscopic pathological changes using traditional and advanced aids.
- 4- Proficiency basics of research methodologies and scientific and continuing work on the addition of knowledge in the area of toxicological pathology
- 5- Application of the analytical and advanced techniques in histopathology-based diagnosis.
- 6- Integration of specialized knowledge with relevant knowledge and discovering the developer of the relations
- 7- Show deep awareness of current problems and new theories in the area of surgical pathology and find innovative solutions to solve them
- 8- Commitment to continuing self-development and transfer of knowledge and experience to others
- 9- Decision-making in light of available information

3- Intended learning outcomes of course methods ILOs)

a- Knowledge and understanding:

By the end of this course the student should be able to:

- a.1 - Theories and the basics of modern knowledge in the field of surgical pathology.
- a.2 - Fundamentals and methodologies and ethics of scientific research and the various tools
- a.3 - Acquire knowledge on different aspects and mechanism of healing with reference to surgical management to each system in different animals.
- a.4- Identify the pathological lesions and pathogenesis and tissue reaction related to the



Beni-Suef University
Faculty of Veterinary Medicine
Department of Pathology

Course specification of postgraduate

specific surgical interference.

- a.5- Understand Mechanism, by which the disease developed, progressed and spread.
- a.6- Aware with tissue specimens preparations and full description to macroscopic and microscopic pathological changes with the aid of advanced techniques.
- a.7- Describe the macroscopic & microscopic tissue changes related to different surgical techniques.
- a.8- Identify The legal and ethical principles for professional practice in the area of surgical pathology
- a.9 - The principles and basics of quality in professional practice in the area of surgical pathology.
- a.10 -Knowledge about the effects on the environment of professional practice and methods of development.
- a.11-Define the specialist subjects, including a command of literature in the field of surgical pathology.
- a.12- Discuss the importance of information technology in scientific research.

b-Intellectual skills

By the end of this course the student should be able to:

- b.1 - Analysis and evaluation of information in the field of surgical pathology
- b.2 - Specialized problem-solving based on the available data
- b.3 - Conducting research studies adding to the knowledge
- b.4 -The formulation of scientific papers.
- b.5 - Risk assessment in professional practice and planning for the development of performance in the area of surgical pathology
- b.6 - Making career decisions in the contexts of different professional
- b.7 - Innovation / Creativity
- b.8 - The dialogue and discussion based on evidence.
- b.9 - Discriminate between tissue/organ appearance in health and experimentally diseased animals, birds, and fish.
- b.10 - Differentiate between the different pathological alterations
- b.11- Score the macroscopic and microscopic pathological lesions
- b.12- Interpret correctly the pathological data obtained by the macroscopic and microscopic examination to reach final diagnosis using advanced tools as immunohistochemistry and molecular pathology.
- b.13- Integrate the pathological alterations with injurious agents

C- Professional and practical skills

By the end of this course the student should be able to:

- c.1- Select the necessary techniques for sample reception & processing according to the nature of specimen received.
- c.2- Examine and identify the macroscopic criteria of the pathological alterations.



Beni-Suef University
 Faculty of Veterinary Medicine
 Department of Pathology

Course specification of postgraduate

- c.3- Examine and identify the microscopic criteria of the pathological alterations using modern techniques.
- c.4- Perform diagnosis and full description for the pathological picture based on the gross and histopathological examination and advanced techniques
- c.5- Write a report commenting on a pathological specimens
- c.6 - Proficiency basic professional skills and modern techniques in the area of surgical pathology
- c.7 - Writing and evaluation of professional reports
- c.8 - Evaluation and development of existing methods and tools in the area of surgical pathology
- c.9 - The use of technological means to serve the professional practice
- c.10- Planning for the development of professional practice and development

d- General and transferable skills

By the end of studying the course, the student should be able to:

- d.1- Effective communication in its different forms
- d.2 - Use of information technology to serve the development of professional practice
- d.3- Teaching others and evaluate their performance
- d.4- Self-assessment and continuous learning
- d.5- The use of different sources for information and knowledge
- d.6- Work in a team and leading teams
- d.7- Management of scientific meetings and the ability to manage time

4-Topics and contents

Course	Topic	week	Total (hr)	Lectures (hr)	Practical (hr)
Surgical Pathology (Lec. 2h./week, Pract 2h./week)	<u>Course description</u> - Introduction -Sampling and preservation - Cell and tissue reaction to injury. -Circulatory response in relation o inflammatory reaction - Malformations	4	16	8	8
	Application of immunohistochemical techniques to detect	2	8	4	4



Beni-Suef University
 Faculty of Veterinary Medicine
 Department of Pathology

Course specification of postgraduate

	protein excreted during healing or regeneration.				
	Molecular pathology applications in surgical pathology	2	8	4	4
	- Regeneration and repair of soft tissue - Regeneration and repair of surgical wound - Regeneration and repair of contaminated wound - Regeneration and repair of parenchymatous organs - Regeneration and repair of bone.	8	32	16	16
	- Angiopathy (pathology of blood vessels). - Pathology of the skin. - Pathology of muscles - Pathology of tendons. - Pathology of joints. - Pathology of bone. *Diseases due to nutritional deficiency *Infectious diseases of bone *Neoplasm	7	32	14	14
	Tissue grafting - Organ transplantation and reaction	3	12	6	6
	- Pathology of hoof affections. - Pathology of eye affections. - Pathology of central nervous tissue - Pathology of peripheral nerves	3	12	6	6
	Pathology of hemic system - - Pathology of lymphatic system	4	16	8	8



Beni-Suef University
 Faculty of Veterinary Medicine
 Department of Pathology

Course specification of postgraduate

	Students activities - Collect pathology, specimens. - Writing assays. - Pathology rounds.	3	12	6	6
	total	36	144	72	72

5-Teaching and learning methods

5.1- Lectures: developed relies on student participation and discussion with the aid of multimedia

5.2- Practical: an electronic show with macroscopic and microscopic screening of pathological lesions.

5.3- Self-learning activities:

* Samples collections and research from the internet and library

* panel discussions (Histopathology and Gross pathology rounds).

*E-Learning (using and activation of electronic course of pathology – [http://:cms.nelc.edu.eg](http://cms.nelc.edu.eg))

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a1- a14	b1- b12		
Practical Exam	a1- a14	b1- b12	c1- c10	
Oral Exam	a1- a14	b1- b12	c1- c10	d1-d7

7.2. Assessment schedules

Method	Month
Writing exam	December
Practical exam	December
Oral exam	December

7.3. Weight of assessments

Assessment	Weight of assessment
Writing exam	50%
Practical exam	25%
Oral exam	25%
Total	100%

8- List of references



Beni-Suef University
Faculty of Veterinary Medicine
Department of Pathology

Course specification of postgraduate

8.1. Notes and books

- Textbook of General Pathology----- (Staff members of the dep.)**
- Practical of General Pathology----- (Staff members of the dep.)**
- Textbook of Systemic Pathology ----- (Staff members of the dep.)**
- Practical of Systemic Pathology----- (Staff members of the dep.)**
- Textbook of Pathology of Specific Diseases. --- (Staff members of the dep.)**

8.2. Essential books:

- Gallin, J. and Synder , R (1999), Inflammation 3rd.ed. Lippincott Williams,Wilkins. Philadelphia.**
- Diana Weedman Molavi "The Practice of Surgical Pathology: A Beginner's Guide to the Diagnostic Process" (2008)**
- Paolo Gattuso MD, Vijaya B. Reddy MD, Odile David MD and Daniel J. Spitz MD "Differential Diagnosis in Surgical Pathology: Expert Consult"(2009)**

8.3. Recommended texts

- Olsen, Richard G. (2005) (Comparative Pathobiology and Viral Diseases)**
- Boca Raton, Fla and Cheville, Norman F. (Cytopathology in Viral Diseases)**
- Jennings, A.R. (Animal Pathology)**
- Bailliere, Tindall and Cassell, London Mouwen, J.M. et al (Atlas of veterinary Pathology) Saunders, Philadelphia**
- Thomson, R.G. (2000) (General Veterinary Pathology) Saunders, Philadelphia**
- Jubb *et al.*, (2007) (pathology of domestic animals) Saunders, Philadelphia**

Journals:

- Egyptian Journal of Comparative Pathology and Clinical Pathology.**
- Pathologia Veterinaria**
- American Journal of Pathology**
- Journal of Pathology and Bacteriology**
- Archive of Pathology**
- Veterinary Record**
- Journal of Comparative Pathology**
- Canadian Journal of comparative Medicine**
- American Journal of veterinary research**
- Research on veterinary Science**

Websites:

WWW.Science direct
WWW. Pubmed.com
[WWW.Scholar google.com](http://WWW.Scholar.google.com)
[WWW.welly interscience](http://WWW.wellyinterscience.com)

Course Coordinator

Dr. Nesreen Safwat
Lecturer of Pathology Department
Faculty of Veterinary Medicine,
Beni-Suef University

Head of the department

Prof. Dr. Khaled Ali Ahmed
Professor and Head of Pathology department, Faculty
of Veterinary Medicine,
Beni-Suef University



Beni-Suef University
 Faculty of Veterinary Medicine
 Department of Pathology

Course specification of postgraduate

	Topic	Weeks	Intended learning outcomes of course (ILOs)			
			K and U (a)	I.S (b)	P.P.S (c)	G.T (d)
1	Introduction	1 st W- 4 th W	1-12	1-13	1-10	1-7
2	Application of immunohistochemical techniques to detect protein excreted during healing or regeneration.	5 th W- 6 th W	1-12	1-11	1-10	1-7
3	Molecular pathology applications in surgical pathology	7 th W- 8 th W	1-12	1-11	1-10	1-7
4	Regeneration and repair of soft tissue	9 th W- 10 th W	1-12	1-13	1-10	1-7
5	Regeneration and repair of surgical wound contaminated wound	11 th W-12 th W	1-12	1-11	1-10	1-7
6	Regeneration and repair of parenchymatous organs	13 th W-14 th W	1-12	1-11	1-10	1-7
7	Regeneration and repair of bone.	15 th W-16 th W	1-12	1-11	1-10	1-7
8	Angiopathy (pathology of blood vessels).	17 th W-18 th W	1-12	1-11	1-10	1-7
9	Pathology of the skin, muscles, tendons, joints, and bone.	19 th W- 24 th W	1-12	1-13	1-10	1-7
10	Tissue grafting	25 th W- 27 th W	1-12	1-13	1-10	1-7
11	Pathology of hoof affections, eye affections, central nervous tissue, and peripheral nerves	28 th W-30 th W	1-12	1-13	1-10	1-7
12	Pathology of hemic system and lymphatic system	31 st W- 34 th W	1-12	1-13	1-10	1-7
13	Students activities	35 th W-36 th W	1-12	1-13	1-10	1-7



Beni Suef University
Faculty of Veterinary Medicine



Coursespecification (2016-2017)

1-Basicinformation

Course Code:	D18-D
Course title :	General and special arthrology
Academic year:	Postgraduate students.
Program title:	Diploma of Vet. Med. Sciences (Veterinary surgery).
Degree:	Diploma.
Contact hours/ week	4 hours per week (2hr theoretical and 2hr practical).
Course coordinator:	Dr. Ashraf Sayed Awaad
External evaluator(s)	Prof. Dr. Essam Mohamed Moustafa El-Gindy
Date of course approval:	

2-Professional information

Overallaimsofcourse:

This course aims to:

Provide the post graduate students with basic anatomical information about the general and especial arthrology of domestic animals that will enable them to gain skills for clinical approach to the surgical operation within the different body joints.

3-Intendedlearningoutcomesofcourse(ILOs)

a-Knowledgeand understanding:

By the end of this course the student should be able to:

- a1. Recall the different bone forming the thoracic and hind limbs.
- a2. Distinguish the principle component of the locomotor system with special references to the thoracic limb, pelvic limb and thorax.
- a3. Conclude the typical structure of the body joints.
- a4. Ascertain the surface landmarks of the underling bones, muscles, tendons and internal structures (main nerves, vessels and viscera).
- a5. Set the correlation of the anatomical facts to the clinical problems related to the joints

b-Intellectualskills:

By the end of this course the student should be able to:

- b1. Differentiate the bones of limbs for all animal species.
- b2. Describe the structure of the different body joints of equines.
- b3. Predict the effect on limb stance and locomotion caused by paralysis of specific nerves or muscle tendon rupture.
- b4. Differentiate between the normal and abnormal position and deviated movements and malformations of the different joint in both limbs of equines.
- b5. Describe the muscles and major named vessels and nerves of the equine limbs in terms of functional groups.
- b6. Correlate the anatomical facts to the clinical problems especially that related to



Coursespecification (2016-2017)

locomotion.

b7. Analyze the gained anatomical facts of importance in the field of practice.

c-Professional and practicalskills

By the end of this course the student should be able to:

- c1. Detect the shape and position of isolated and assembled bones of different domestic animals.
- c2. Coordinate the radiographic anatomy of the bones and thorax to clarify some field problems.
- c3. Draw labeled diagrams and illustrations of each normal anatomical structure of each joint
- c4. Interpret the graphs of arthroscopy.
- c5. Locate the appropriate sit for interference within each joint

d-Generaland transferable skills

By the end of studying the course, the student should be able to:

- d1. Appreciate the team working and time management.
- d2. Value the ethics and respect to all individuals inside and outside the dissecting room and pay appropriate respect to the animal's cadavers.
- d3. Recognize the scope and limits of their role as students as well as the necessity to seek and apply collaboration with other colleagues.
- d4. Maintain a professional image concerning behavior, dress and speech.
- d5. Be responsible toward work.
- d6. Communicate effectively with public, colleagues and appropriate authorities.
- d7. Achieve computer skills necessary to make use of medical databases and use the internet for communication.
- d8. Prepare a scientific paper and essay.



Coursespecification (2016-2017)

4-Topics andcontents

Course	Topic	Pract.	Lect.	Total no. of hours
Postgraduate students General and special arthrology 4hours / weak (Lec. 2hr/wk - Pract. 2hr/wk)	1- General osteology (skeletons, types of bones, bone structure).	2	2	4
	2- Bones of the thoracic limb of different domestic animals (scapula, humerus, radius and ulna, carpus, metacarpus, digits, hoof).	12	6	18
	3- Dissection of the equine thoracic limb (muscles of the lateral aspect, muscles of the medial aspect, blood vessels nerves).	12	6	18
	4- Special arthrology of thoracic limb (shoulder, elbow, carpal, fetlock, pastern and coffin joints)	2	14	18
	5- Bones of the pelvic limb of different domestic animals (os-coxae, femur, tibia and fibula, tarsus, metatarsus).	10	4	14
	6- Dissection of the equine pelvic limb (muscles of the lateral aspect, muscles of the medial aspect, blood vessels, nerves).	12	6	18
	7- Special arthrology of pelvic limb (hip, stifle and hock joints)	2	14	16
	Total	52	52	104

5-Teachingandlearningmethods

5.1. Lectures (brain storming, discussion) in which one or more of the following facilities are used:

- 5.1.1. White board and data-show presentations.
- 5.1.2. Educational animal models, bones and preserved specimens.
- 5.1.3. Illustrations, anatomical charts, CD's, PowerPoint slides and recorded anatomy videos.

5.2. Laboratory sessions in which one or more of the following facilities are used:

- 5.2.1. Tutor presentation followed by students' small group sessions.
- 5.2.2. Freshly died horses and donkeys
- 5.2.3. Educational models.
- 5.2.4. Prepared bones from euthanatized animals.
- 5.2.5. Demonstrating formalin preserved cadavers.

5.3. Independent (laboratory and home assignments supervised by tutor)

- 5.3.1. Writing reports and assignments (computer researches and faculty library attendance).



Coursespecification (2016-2017)

- 5.3.2. Preparation of colored posters and slide presentation.
- 5.3.3. Preparation of bones and preserving specimens.
- 5.3.4. Group discussion.

6-Teachingandlearningmethodsforthestudentswithdisabilities

- 6.1. Students with difficulties are encouraged to contact department instructors in office hours to discuss their individual needs for learning accommodation that may affect their ability to participate in course activities or to meet the course requirements.
- 6.2. At the end of practical sessions, overall revision was done for all students to overcome the problem of non-attendance any practical session.

7-Studentassessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a4, a5	b2, b3, b5, b7, b8	c2, c3, c4, c5	d1
Practical Exam	a1, a2, a3, a4	b1, b4, b5	c1, c5	d1, d2, d3, d4, d5,
Oral Exam	a1-a5	b1-b7	c1, c2, c4, c5	d3, d6,

5.2. Assessment schedules/semester:

Method	Week(s)
Practical exams	Managed by department administration
Final exams	Managed by faculty administration
Oral Exams	Managed by department administration
Student activities	Along the semester

5.3. Weight of assessments:

Assessment	Weight of assessment
Practical and oral exams	50%
Final exams	50%
Student activities	-----
Total	100%



Coursespecification (2016-2017)

8-List of references

8.1. Notesand books:

None

8.2. Essentialbooks:

8.2.1. Sisson and Grossman's the anatomy of the domestic animals, 5th edition (Getty, R., 1975), published by W.B. Saunders Company, Philadelphia, London and Toronto. ISBN: 0-7216-4102-4- vol.1 and 0-7216-4107-5- Vol.-2.

8.2.2. Anatomy and physiology of farm animals. 6th edition (Frandsen, R.D., Wilke, W.I. and Fails, A.D., 2003), published by Lippicott Williams and Wilkins, Awolters Kluwer Company, ISBN: 0-7817-3358-8.

8.2.3. Clinical dissection guide for large animals, horse and large ruminants, 2nd edition (Constantinescu, G.M. and Constantinescu, I.A., 2004), published by Iowa State Press, ISBN: 0-8138-0319-5.

8.2.4. Miller's anatomy of the dog (Evans, H.E. and Christensen, G.C., 1979), published by W.B. Saunders Company, Philadelphia, London, Toronto, Mexico city, Rio de -Janeiro, Sydney and Tokyo, ISBN:0-7216-3438-9.

8.2.5. Anatomy of the dromedary (Smuts, M.S. and Bezuidenhout, A.J., 1987), published by Clarendon press, Oxford, ISBN: 0-19-857188-7.

8.2.6. Atlas anatomy of the horse, (G.A. Swielim, 1997), published by Faculty of veterinary medicine- Cairo, ISBN: 977-19-4770-2.

8.2.7. Anatomy of the horse, an illustrated text, 2nd edition (Budras, K.D., Sack, W.O. and Röck, S., 1994), published by Mosby work. Hanover Germany, ISBN: 07234-19213.

8.2.8. Bovine anatomy, an illustrated text, 1st edition (Budras, K.D., Habel, R.E., Wiinsche, A. and Buda, S. 2003), published by Hanover, Germany, ISBN: 3-89993-000-2.

8.2.9. Text book of veterinary anatomy (Dyce, K.M.; Sack, W.O. and Wensing, C.J.G.1987), published by W.B. Saunders Co., Philadelphia, London, Toronto, Montreal, Sydney, Tokyo, ISBN: 0-7216-1332-2.

8.2.10. The Embryology of the domestic animals, developmental mechanisms and malformations (Nodern, D.M. and De-Lahunta, A.1986), published by Williams and Wilkins, Baltimore, London, Los Anglos, Sydney, ISBN: 0-683-06545-9.

*These books are available in the library of faculty of Veterinary Medicine, Beni-Suef University.

8.3. Recommended textbooks:

8.3.1. Anatomy of the horse, fifth, revised edition (Klaus-Dieter Budras W.O. Sack Sabine Röck, 2009), Schlütersche Verlagsgesellschaft mbH & Co. KG., Hans-Böckler-Alle 7, 30173 Hannover, printed in Germany, ISBN 978-3-89993-044-3.

8.3.2. Textbook of veterinary anatomy, fourth edition (K.M. Dyce, C.J.G. Wensing), Saunders elsevier, 3251 Riverport Lane, St. Louis, Missouri, 63043, ISBN: 978-1-4160-6607-1.

8.3.3. Miller's anatomy of the dog, fourth edition (H.E. Evans, A. de-Lahunta, 2011),



Coursespecification (2016-2017)

Saunders elsevier, 3251 Riverport Lane St. Louis, Missouri 63043, ISBN: 978-143770812-7.

8.3.4. Essentials of domestic animal embryology, first edition, (Hyttel, P., Sinowatz, F. and Vejlested, M., 2010), Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St Louis, Sydney, Toronto, ISBN: 978-0-7020-2899-1.

*These books are available online through Google search (www.google.com).

8.4. Journals, Websitesetc

Journals

Anatomia, Histologia, Embryologia - Wiley Online Library

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1439-0264](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1439-0264)

The Anatomical Record - Wiley Online Library

[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1932-8494](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1932-8494)

Journal of Anatomy- Wiley Online Library

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1469-7580](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1469-7580)

Annals of Anatomy - Journal-Elsevier

<http://www.journals.elsevier.com/annals-of-anatomy/>

Journal of Veterinary Anatomy

<http://www.vetanat.com/>

Indian Journal of Veterinary Anatomy

<http://epubs.icar.org.in/ejournal/index.php/IJVA>

International Journal of Animal Anatomy and Physiology

<http://internationalscholarsjournals.org/journal/ijaap>

Journal of Advanced Research in Veterinary Science and Technology

<http://www.adrpublications.com/Journal-of-Advanced-Research-in-Veterinary-Science-and-Technology.html>

Beni-Suef Veterinary Medical journal

<http://www.bsuv.bsu.edu.eg/vetmed.aspx#>

Websites

Google search www.google.com

Sciencedirect <http://www.sciencedirect.com>.

Pubmed <http://www.Pubmed>.

Colorado State university online <http://www.online.colostate.edu/courses/VS/VS333.dot>

The university of adelaide <https://www.adelaide.edu.au/course-outlines/104377/1/sem-1/>

Veterinary anatomy courses <http://vanat.cvm.umn.edu/vanatCourses/CVM6100.html>

Anatomy museum <http://skeletonmuseum.com/>

Animals skeletons [-www.animalskeletons.net](http://www.animalskeletons.net)

VET Veterinary Educational Tools <http://www.cvmb.colostate.edu/vetneuro/>

Education platform <http://ivsascove.wix.com/eduplatform#!anatomy-hist-embr/ctsm>

Veterinary anatomy <http://vetmedicine.about.com/od/anatomy/>

Online Veterinary Anatomy Museum <http://www.onlineveterinaryanatomy.net/>

Imaging Anatomy Website http://vetmed.illinois.edu/courses/imaging_anatomy/

Real 3D anatomy <http://www.real3danatomy.com/>

Interactive Programs for Canine Anatomy <http://www.tabanat.com>

Virtual Canine Anatomy <http://www.cvmb.colostate.edu/vetneuro/VCA3/vca.html>

Veterinary anatomy museum <http://vanat.cvm.umn.edu/museum/>



Beni-Suef University
Faculty of Veterinary Medicine



Coursespecification (2016-2017)

Veterinary neurobiology laboratory preview/review <http://vanat.cvm.umn.edu/neurolab/>
Carnivore and developmental anatomy lectures <http://vanat.cvm.umn.edu/TFFlect.html>
Rooney's guide to the dissection of the horse <http://www.vet.cornell.edu/oed/horsedissection/>
Interactive drawings for veterinary anatomists <http://www.images4u.com/>
Veterinary anatomy: directions and planes <http://vanat.cvm.umn.edu/anatDirections/>
Canine planar anatomy <http://vanat.cvm.umn.edu/planar/>
Gaits: gait foot-fall patterns <http://vanat.cvm.umn.edu/gaits/>
Sheep brain dissection guide <http://academic.uofs.edu/departement/psych/sheep/>
Anatomical Society of Great Britain and Ireland, <http://www.anatsoc.org.uk/>
Sheep brain atlas <https://www.msu.edu/~brains/brains/sheep/index.html>
Neuroanatomy correlation lab <http://instruction.cvhs.okstate.edu/neurology/>
Primate anatomy and physiology <http://pin.primat.wisc.edu/aboutp/anat/>
Functional anatomy of the horse foot
<http://extension.missouri.edu/xplor/agguides/ansci/g02740.htm>

Course Coordinator

Dr. Ashraf Sayed Awaad Ahmed
Assistant professor of Anatomy and
Embryology Faculty of Veterinary
Medicine, Beni-Suef University

Head of the department

Prof. Dr. Zein Elabdein Adam
Professor and Head of Anatomy and Embryology
department, Faculty of Veterinary Medicine,
Beni-Suef University

	Topic	Week	Intended learning outcomes of course (ILOs)			
			K&U (a)	LS (b)	P.P.S (c)	G.T.S (d)
Postgraduate students General and special arthrology 4 hours / week (Lec. 2hr/wk - Pract. 2hr/wk)	1- General osteology (skeletons, types of bones , bone structure)	1	1, 2, 3	1, 2, 3	1, 2, 3	1-8
	2- Bones of the thoracic limb of different domestic animals (scapula, humerus, radius and ulna, carpus, metacarpus, digits, hoof).	2, 3, 4, 5	1, 2, 3	1, 3	1, 2	
	3- Dissection of the equine thoracic limb (muscles of the lateral aspect, muscles of the medial aspect, blood vessels, nerves).	6, 7, 8, 9	2, 4	2, 3, 5	3, 4	
	4- Special arthrology of thoracic limb (shoulder, elbow, carpal, fetlock, pastern and coffin joints)	10, 11, 12, 13, 14, 15	3, 4, 5	2, 3, 4, 6, 7	2, 3, 4, 5	
	5- Bones of the pelvic limb of different domestic animals (os-coxae, femur, tibia and fibula, tarsus, metatarsus).	16, 17, 18, 19	1, 2, 3	1, 2	1, 2	
	6- Dissection of the equine thoracic limb (muscles of the lateral aspect, muscles of the medial aspect, blood vessels, nerves).	20, 21	2, 3	3, 4, 5	3, 4	
	7- Special arthrology of pelvic limb (hip, stifle and hock joints)	22, 23, 24, 25, 26	3, 4, 5	2, 3, 4, 6, 7	2, 3, 4, 5	



Course specification of postgraduate

1-Basic information

Course Code:	M-162	
Course title :	General surgery	
Program title:	Diploma degree In Veterinary Medical Sciences (Surgery)	
Contact hours/ week	Lecture: 2 h / week	Practical: 3 h / week
Approval Date		

2-Professional information

Overall aims of course:

This course aims to:

1. Introducing the academic background and practical experience about General surgery.
2. Introducing the academic background and practical experience about basic principles of surgical interferences and treatment.

3- Intended learning outcomes of course (ILOs)

A- Knowledge and understanding:

By the end of this course the student should be able to:

- a.1. Recognize causes , and diagnosis of surgical affections
- a.2. Outline the basic principles in dealing with surgical affections
- a.3. Recall the basic principles of anesthetic techniques and materials.
- a.4. Describe the relationship between the used anesthetic techniques and materials and surgical interferences.

B-Intellectual skills

By the end of this course the student should be able to:

- b.1. Discriminate and analysis of clinical and laboratory findings to reach the accurate diagnosis.
- b.2. Interpret and predict the prognosis and sequellae of general surgical affections.
- b.3. Score of suitability of using defined Surgical techniques.
- b.4. identify areas where further researches necessary and be aware of any which would be beyond current ethical codes.

C- Professional and practical skills

By the end of this course the student should be able to:

- c.1. Assess experience in clinical and laboratory diagnosis of surgical affections
- c.2. Perform different surgical techniques.
- c.3. using the new technology in practical portion.
- c.4. follow up the treated cases and control of postoperative complications.

D- General and transferable skills

By the end of studying the course, the student should be able to:

- d.1 Demonstrate information retrieval and library skills
- d.2 Demonstrate interpersonal skills and team working ability by the successful completion of collaborative learn assignment and the honors researches projects



Course specification of postgraduate

d.3. present research finding in oral and written from using arrange of appropriate software (e.g., power point , word , excel and data base).

d.4. use all types of communications skills.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. 2h./week, Pract. 3h./week)	- Inflammation	20	8	12
	- Necrosis, ulcers and gangrene	15	6	9
	- Burns and scalds	15	6	9
	- Abscess	20	8	12
	- Sinus and fistula	20	8	12
	- Cyst and tumors	20	8	12
	- Bone affections	20	8	12
	- Joint affections	20	8	12
	-Tendons and tendon sheath affections	15	6	9
	- Muscle affections ,Affections of bursa Nerve and blood vessels affections	15	6	9

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows

5.2- Self learning by preparing essays and presentations (computer researches and library)

5.3- Practical application of advanced surgical technique (models, samples of tissues and data show).

5.4- Self learning by preparing essays and presentations (computer researches and library)

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a1- a2- a3-	b1- b2- b3-	c1- c2- c3- c4	d1- d2
Practical Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3- c4	
Oral Exam	a1- a2- a3-	b1- b2- b3-	c1,c3	d1-d2-d3- d4



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

7.2. Assessment schedules

Method	Week(s)
Writing exam	December
Practical exam	December
Oral exam	December

7.3. Weight of assessments

Assessment	Weight of assessment
Writing exam	50%
Practical exam	25%
Oral exam	25%
total	100%

8- List of references

8.1. Notes and books

-Veterinary surgery. D.Knech. R.Allen. 1987

8.2. Essential books:

-Farm Animal Surgery. Susane Fubini. 1987

8.3. Recommended texts

- Atlas of general small animal surgery. Caywood. Lipowitz. 1989

- Complications in small animal surgery. Alan.J. lipowitz 2015

8.4. Journals, Websitesetc

Journals: Veterinary surgery, Veterinary Clinics of North America.

Websites:

WWW.Science direct

WWW. Pubmed.com

WWW.Scholar google.com

WWW.welly interscience

Program coordinator

Name: Dr. Mohamed Zaki Fathy

Signature..... Date

Head of the Department

Name: Prof.Dr. Gamal Abdel Nasser

Signature..... Date



Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	General Surgery		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	- Inflammation	- 1 st w- 4 th w	1,2,3	1,2,3	1,2,4	1,2,3
2	- Necrosis, ulcers and gangrene	- 5 th w- 7 th w	1,2,3	1,3	1,2,3,4	1,2,3,4
3	- Burns and scalds	- 8 th w- 10 th w	1,2	1,2,3	1,2,3	1,2,3,4
4	- Abscess	- 11 th w- 14 th w	1,2	1,2,3	1, 3	1,2,3,4
5	- Sinus and fistula	- 15 st w- 18 th w	1,2,3	1,2,3	1,2,4	1,2,3
6	- Cyst and tumors	- 19 th w- 22 th w	1,3	1,4	1,3,4	1,2,4
7	- Bone affections	- 23 th w- 26 th w	1,2	1,2,3	1,2,3	1,2,3,4
8	- Joint affections	- 27 th w- 30 th w	1,2,3	1,2,3	1,2,4	1,2,3
9	-Tendons and tendon sheath affections	- 31 th w-33 th w	1,2	1,2,3	1,2,3	1,2,3,4
10	- Muscle affections ,Affections of bursa Nerve and blood vessels affections	- 34 th w- 36 th w	2,3	1,3,4	2,4	1,3,4



Beni Suef University
Faculty of Veterinary Medicine



Course specification of postgraduate

1-Basic information

Course Code:	M-169	
Course title :	Radiology	
Program title:	Diploma degree In Veterinary Medical Sciences (Surgery)	
Contact hours/ week	Lecture: 2 h / week	Practical: 2 h / week
Approval Date		

2-Professional information

Overall aims of course:

This course aims to:

1. Introducing the academic background and practical experience about Veterinary Radiology.
2. Introducing the academic background and practical experience about basic principles of veterinary radiology and diagnostic imaging and its application in diagnosis of clinical cases.

3- Intended learning outcomes of course (ILOs)

A- Knowledge and understanding:

By the end of this course the student should be able to:

- a.1. Recognize causes and diagnosis of surgical affections using imaging modalities.
- a.2. Outline the basic principles in dealing with radiographic apparatuses
- a.3. Recall the basic principles of anesthetic techniques and materials helping taking image.
- a.4. Describe the relationship between the used anesthetic techniques and materials and surgical interferences.

B-Intellectual skills

By the end of this course the student should be able to:

- b.1. Discriminate and analysis of clinical and radiographic findings to reach the accurate diagnosis.
- b.2. Interpret and predict the prognosis and sequelae of diagnosed surgical affections.
- b.3. Score of suitability of using defined imaging techniques.
- b.4. identify areas where further researches necessary and be aware of any which would be beyond current ethical codes.

C- Professional and practical skills

By the end of this course the student should be able to:

- c.1. Assess experience in clinical radiology and diagnosis of surgical affections
- c.2. Perform different radiographic techniques.
- c.3. using the new technology in practical portion.
- c.4. using of diagnostic imaging in follow up of the treated cases.

D- General and transferable skills

By the end of studying the course, the student should be able to:

- d.1 Demonstrate information retrieval and library skills
- d.2 Demonstrate interpersonal skills and team working ability by the successful completion of collaborative learn assignment and the honors researches projects



Course specification of postgraduate

d.3. present research finding in oral and written form using appropriate software (e.g., power point , word , excel and data base).

d.4. use all types of communications skills.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. 2h./week, Pract. 2h./week)	- Introduction of radiology & Us.	16	8	8
	- Radiographic protection & Poisoning	44	22	22
	- Radiology of Thoracic Trauma	28	14	14
	- Radiographic Features of Soft Tissue Injuries	20	10	10
	- Radiology of Musculoskeletal Trauma and Emergency Cases	16	8	8

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows

5.2- Self learning by preparing essays and presentations (computer researches and library)

5.3- Practical application of advanced surgical technique (models, samples of tissues and data show).

5.4- Self learning by preparing essays and presentations (computer researches and library)

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a1- a2- a3	b1- b2- b3	c1- c2	d1- d2
Practical Exam	a1- a2- a3	b1- b2- b3-	c1- c2- c3- c4	
Oral Exam	a1- a2- a3-	b1- b2- b3-	c1,c3	d1-d2-d3- d4

7.2. Assessment schedules

Method	Week(s)
Writing exam	December
Practical exam	December
Oral exam	December



Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

7.3. Weight of assessments

Assessment	Weight of assessment
Writing exam	50%
Practical exam	25%
Oral exam	25%
total	100%

8- List of references

8.1. Notes and books

-Textbook of veterinary radiology (6th Ed.) D.Knech. R.Allen. 2014

8.2. Essential books:

-Atlas of small animal ultrasonograph Dominique Pennick. 2013

8.3. Recommended texts

- Atlas of small animal CT&MRI. Erick Wisner 2015

8.4. Journals, Websitesetc

Journals: Veterinary Radiology& ultrasonography, Veterinary Clinics of North America.

Websites:

WWW.Science direct

WWW.Pubmed.com

WWW.Scholar google.com

WWW.welly interscience

Program coordinator

Name: **Dr. Mohamed Zaki Fathy**

Signature..... Date

Head of the Department

Name: **Prof.Dr. Gamal Abdel Nasser**

Signature..... Date



Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Radiology		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	- Introduction of radiology & Us.	- 1 st w- 4 th w	1,2,3	1,2,3	1,2,4	1,2,3
2	- Radiographic protection & Poisoning	- 5 th w- 15 th w	1,2,3	1,3	1,2,3,4	1,2,3,4
3	- Radiology of Thoracic Trauma	- 16 th w- 22 th w	1,2	1,2,3	1,2,3	1,2,3,4
4	- Radiographic Features of Soft Tissue Injuries	- 23 th w- 32 th w	1,2	1,2,3	1, 3	1,2,3,4
5	- Radiology of musculoskeletal trauma and Emergency Cases	- 33 st w- 36 th w	1,2,3	1,2,3	1,2,4	1,2,3



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