



Course specification

1-Basic information

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|---------------------|--|
| Course Code: | SURG: 5278 |
| Course title : | Applications of Endoscopy and Ultrasonography in surgery |
| Academic year: | 5th Academic Year |
| Program title: | B. Sc. Veterinary Medical sciences |
| Contact hours/ week | 2 hours/week, (Practical 2hrs/week) |
| Approval Date | |

2-Professional information

Overall aims of the course:

This course aims to:

- Provide the students with anatomical information about the different body systems and locomotor system.
- Enable them to gain skills for applications of surgical endoscopy in domestic animals.
- Provide them the basic concepts of the different types endoscopes..

3-Intended learning outcomes of the course(ILOs)

a-Knowledge and understanding:

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

- a1. Distinguish the principle component of endoscope.
- a2. Mention the different structure of the different endoscopes.
- a3. Conclude the different minimal invasive surgical procedures in domestic animals.
- a4. Recognize the principle components of irrigation systems.
- a5. Ascertain the surface landmarks of the different systems in domestic animals.
- a6. Set the role of minimal invasive surgical procedures in clinical application.

b-Intellectual skills:

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

- b1. Analyze the diversity of knowledge in the term of endoscopic characteristics of each organ and/or structure.
- b2. Identify the different surface markings of the animal's body systems.
- b3. Identify the surface landmarks of different endoscopic procedures.
- b4. Predict the effect on irrigation on endoscopic procedures.
- b5. Differentiate between the normal and abnormal position and deviated movements and malformations of the different joint.

c-Professional and practical skills

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 joints.



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- c2. Coordinate the normal endoscopic anatomy of the different body structures.
- c3. Differentiate between normal and abnormal structure during endoscopy.
- c4. Interpret endoscopic images.

d-General and 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 surgical room.
- 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.

4-Topics and contents

| Course | Topic | Pract. |
|--|--------------------------------|--------|
| Applications of endoscopy and Ultrasonography in surgery | 1– Introduction to endoscopy | 2 |
| | 2– Structure of endoscopes | 2 |
| | 3- Principles of triangulation | 2 |
| | 4- Musculoskeletal endoscopy | 10 |
| | 5- Soft tissue endoscopy | 10 |
| | Total | 26 |



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5-Teaching and learning methods

- 5.1. 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 Videos
- 5.3. Independent (laboratory and home assignments supervised by tutor)
- 5.3.1. Writing reports and assignments (computer researches and faculty library attendance).
- 5.3.2. Preparation of colored posters and slide presentation.
- 5.3.3. Group discussion.

6-Teaching and learning methods for the students with disabilities

- 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-Student assessment

7.1. Assessments methods:

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

7.2. Assessment schedules/semester:

| Method | Week(s) |
|--------------------|-----------------------|
| Practical exam | 14 th week |
| Written Exam | 14 th week |
| Oral Exam | 14 th week |
| Student activities | Along the semester |

7.3. Weight of assessments:

| Assessment | Weight of assessment |
|--------------------|----------------------|
| Written Exam | 20% |
| Practical Exam | 40% |
| Oral Exam | 30% |
| Student activities | 10% |
| Total | 100% |



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8-List of references

8.1. Notes and books:

None

8.2. Recommended texts

- An atlas of veterinary Surgery. John. Hichman. 1980
- Techniques in large animal surgery. A.Simon. C. Wayne. 1982
- Current techniques in small animal surgery.M.Jossep. 1983
- Veterinary anaesthesia. L.W.Hall. K.W.Clarke 1983
- Small animal anesthesia. Roger.C. Warren. 1983
- Small animal radiography. Lawrence. J.KIenine. 1983
- Veterinary trauma & Critical care. Ira.M. Zaslow. 1984
- Color atlas of large animal surgery. A.W. KersJes. 1985
- Small animal surgery Iram Courleg. 1985
- Veterinary surgery. D.Knech. R.Allen. 1987
- Veterinary radiography. S.W. Douglas. 1987
- Ruminant urogenital Surgery. C.F.B. Hofmeyr. 1987
- Atlas of general small animal surgery.Caywood. Lipowitz 1989
- Veterinary emergency & critical Care medicine. Murtaugh. Kaplan. 1992
- Disease mechanisms in small Animal. M.Joseph. Bojrab. 1993
- Small animal neurology. Simon. J. Wheeler 1996
- Surgery. Bruce.E. jarreil. 1996
- Complications in small animal surgery.Alan.J. lipowitz. 1996
- Lameness in cattle. Paul.R. Creenough. 1997
- Small animal surgery. Laura.Pardi Duprey. 1997
- Equine surgery. C. Wayne James.T. 1998
- Veterinary diagnostic radiology. Donald. E. Thrall. 1998

*These books are found in the library of faculty of veterinary medicine , Beni-suef university.

8.3. Journals, Websitesetc

Journals:

- Indian Journal of veterinary surgery.
- American Journal of veterinary research.
- Veterinary record.



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- Veterinary Surgery.
- Veterinary anesthesia and analgesia.

Websites:

- www.blackwellpublishing.com/journal.asp
- www.acvs.org
- www.vetcision.com/staff.html
- www.vsecvet.com/practices/surgery/vets.html
- www.ascotvetsurgery.com.au
- www.barnhousevets.co.uk

- www.veterinarsurgerycenter.com
- www.rcvs.org.uk/VeterinarySurgeons
- www.leimedical.com
- www.vasg.org
- www.acvr.org/general/activities/journal/index.html
- www.cvmbs.colostate.edu/cvmbs/radiology.pdf
- www.vasg.org
- www.vetmed.wsu.edu/ClientED/anesthesia.asp
- www.acvr.org
- www.vet.utk.edu/radiology
- www.acvr.org/general/activities/journal/index.html
- www.cvmbs.colostate.edu/cvmbs/radiology.pdf

Course Coordinator

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| Topic | | Week | Intended learning outcomes of course (ILOs) | | | |
|---|--------------------------------|------|---|---------|---------|-----------|
| | | | K&U (a) | I.S (b) | I.S (c) | G.T.S (d) |
| Applications of Endoscopy and Ultrasonography in surgery | 1 – Introduction to endoscopy | 1 | 3, 6 | 1 | 2,4 | 1-8 |
| | 2– Structure of endoscopes | 2 | 4, 6 | 1, | 4 | |
| | 3- Principles of triangulation | 3 | 1, 2, 6 | 2, 4, 5 | 2, 3, 4 | |
| | 4- Musculoskeletal endoscopy | 4-8 | 1, 5 | 2, 3 | 1, 2, 4 | |
| | 5- Soft tissue endoscopy | 9-13 | 1, 4, 5 | 2, 4 | 2, 3, 4 | |
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