Academic:

1. Degree Offered –UG, PG, PhD
   Title of degree:
   Duration:
   Eligibility Criteria:
   Intake Capacity:
   Opportunities:

2. Academic Regulations:
   UG , PG, PhD (VCI, ICAR, IV, V Dean's and Corrigendum) – PDF Copies

3. Admissions:

UG, PG, PhD

List of Admitted Students – First Year to Final Year (Veterinary Year wise / Fishery and Dairy Semester wise) :

Sr. No.	Name of Student	Enrl. No.	Email Address	Name of Advisor

4. Course offered :: UG, PG , PhD - Semester / Year wise

- **List of PG Courses M.V.Sc. – Veterinary Surgery and Radiology**

Lecture Schedule for M.V.Sc degree programme courses Proposed in ICAR New syllabus (2021) and finalized by BOS in the discipline of Veterinary Surgery & Radiology, MAFSU, Nagpur on 24/12/2021.

LECTURE SCHEDULE

Course Title: Clinical Practice-I
Course Code: VSR 501
Credit Hours: 0+3

Sr. No.	Name of topic	Number of lectures
1	Basic requirements and designing surgical and general veterinary hospital	02
2	Developing different proformas required in hospital facility	02
3	Assessing surgical patients and documentation	03
4	Preparation of surgical team and duties of team members	03
5	Surgical suite maintenance and sterilization	03

6	Acquaintance with inhalant anaesthesia machine	02
7	Acquaintance with Radiography systems	02
8	Acquaintance with Ultrasonography	02
9	Acquaintance with Endoscopy	02
10	Acquaintance with Electro-surgery	01
11	Acquaintance with Cryosurgery	01
12	Acquaintance with physiotherapy	01
13	Client management and public relation	04
14	Code of conduct	03
15	Management of surgical affections	06
16	Hospital database management	02
17	Attending surgical cases	06
18	Disaster management	02
	Total	**48**

VSR-502: Clinical Practice- II (0+3)

Practical

Sr.No	Topic	No of lecture
1	General considerations of anaesthesia and various Pre Anaesthetics	1
2	General anesthesia, its stages and various general anesthetics.	1
3	Acquaintance to the equipments used for inhalation anesthesia and endotracheal intubation.	1
4	Application of inhalation anaesthesia in small animals	2
5	Application of inhalation anaesthesia in large animals	2
6	Positioning for Radiography	1
7	Radiographic interpretation of head, neck thorax and abdomen – detail, density and contrast	3
8	Factors affecting radiographs and Artifacts	1
9	Contrast Radiography of various systems GIT, nervous system, Urinary system, etc	1
10	Fractures, classification and its radiographic reporting.	2
11	Basics of Ultrasonography and its interpretation	1

12	USG of abdomen- USG of various systems- GIT, Genito- Urinary	2
13	Ultrasonography of eye, echocardiography, doppler.	2
14	Management of the radiography section and maintenance of the records.	1
15	Electro surgery and Cryosurgery	1
16	Physiotherapy and acquaintance to Physiotherapy equipments and their application.	1
17	Managing Surgical emergencies and cases.	2
18	Management of the Operation theater operations and maintenance of the records.	2
19	Attending various surgical cases - regarding to soft tissue surgeries	4 -8
20	Attending various fracture management cases.	4
21	Ocular affections, Ocular emergencies and Management	4
22	Attending various specialized surgeries	4
23	Introduction to Veterinary endoscopy and equipments	1
24	Use of flexible endoscopy, gastroscopy, Bronchoscopy, cystoscopy, etc. Collection of biopsies, fluids for cytology.	2
25	Rigid Endoscopy - Laparoscopy and its applications. Otoscopy, esophagoscopy, etc	2
	Total -	**48**

VSR 503: Principles of Surgery (2+1)

Topics for Theory/ Practical's

THEORY LECTURE SCHEDULE:

Sr. No.	Topics	No. of Lectures
	Unit I	1
1	Classification of wounds	1

2	Wound healing	**1**
3	Mechanism of wound repair	**1**
4	Local and systemic factors affecting wound healing	**1**
5	Current concepts of inflammation and manag1ement	**1**
6	Thermal injuries and their management	**1**
7	Electrical injuries and their management	**1**
8	Chemical injuries and their management	**1**
	Unit II	
9	Asepsis, sterilization and disinfection	**1**
10	Principles of antimicrobial therapy in surgical patients	**1**
11	Practice of antimicrobial therapy in surgical patients	**1**
	Unit III	
12	Shock-classification	**1**
13	Shock- pathophysiology	**1**
14	Shock- diagnosis	**1**
15	Shock- treatment and monitoring	**1**
16	Surgical stress and its systemic effects	**1**
17	Haemorrhage and haemostasis	**1**
18	Acid-base balance	**1**
19	Fluid therapy	**1**

20	Fluid therapy	**1**
21	Blood transfusion	**1**
22	Metabolism of the surgical patient	**1**
23	Metabolism of the surgical patient	**1**
	Unit IV	
24	Principles and clinical applications of Laser surgery	**1**
25	Principles and clinical applications of Cryosurgery	**1**
26	Principles and clinical applications of Electrosurgery	**1**
27	Principles and clinical applications of Physiotherapy	**1**
	Unit V	
28	Minimally invasive surgical procedures which includes laparoscopy	**1**
29	**.** Minimally invasive surgical procedures which includes endoscopy	**1**
30	Principles of microscopic surgery-vessel and nerve anastomosis	**1**
31	Application of computers in surgery	**1**

PRACTICAL SCHEDULE: VSR 503 (2+1)

Sr. No	**Topics**	**No. of Practicals**
1	Identification and handling of surgical instruments	1
2	Identification and handling of surgical instruments	1
3	Identification and handling of surgical instruments	1

4	Preparation of surgical pack	1
5	Preparation of surgical team	1
6	Preparation of surgical patients	1
7	Surgical facilities	1
8	Surgical equipment	1
9	Introduction to clinical skill laboratory	1
10	Practice of different suturing patterns	1
11	Practice of different suturing patterns	1
12	Repair of different wounds, using drains, bandages and bandaging techniques	1
13	Repair of different wounds, using drains, bandages and bandaging techniques	1
14	Monitoring of traumatized surgical patient	1
15	Monitoring of traumatized surgical patient	1
16	Operation theatre conduct	1

Course No: VSR-504 (2+1)

Course Title: Anesthesia and Analgesia

Theory:

Sr. No.	Topics	No. of Lectures
	Unit - I	
1.	Introduction and history of anesthesia	1
2.	General consideration for anesthesia in animals	1
3.	Properties of ideal anesthetic agent, types of anesthesia	1
4.	Anesthetic triad	1
5.	Preanesthetic evaluation of patient	1
6.	Selection of anesthesia	1
	Unit - II	
7.	Preanesthetic medication -Anticholinergics, Sedatives	1
8.	Preanesthetic medication – Tranquilizers, Alpha-2 agonist, Narcotics.	1
9	Muscle relaxants and neuromuscular blocking agents	1
	Unit - III	
10	General Anesthetics	1
11	Factors affecting uptake, distribution and metabolism of General anesthetics	1
12	General properties of injectable anesthetic agents	1
13	Dosage of administration of injectable anesthetic agents	1
14	Usage of injectable anesthetic agents	1
15	Combinations of injectable anesthetics agents and Neuroleptanalgesia	1
16	Inhalation anesthetic agents and their properties	1
17	Inhalation anesthetics: Methods of administration, dosage and usages	1
18	Inhalation anesthesia equipment and breathing circuits	1
19	Artificial ventilation	1

	Unit - IV	
20	Post-operative care of the surgical patient	1
21	Operating room emergencies	1
22	Cardio-pulmonary arrest and resuscitation	1
23	Monitoring of anesthetic recovery	1
	Unit - V	
24	Local anesthetics, their mechanisms	1
25	Local and regional nerve blocks	2
26	Spinal analgesia, intravenous regional anesthesia	1
27	Peri-operative pain and its management	1
28	Post-operative pain and its management	1
29	Euthanasia	1

Course No: VSR-504 (2+1)

Practical's

Sr. No.	**Topic**	**No of Practicals .**
1.	Introduction to Inhalation Anesthesia equipments	1
2.	Detailed study of circuits and vaporizers in inhalant anesthesia machine	1
3.	Artificial ventilation	1
4.	Basics of Pre-anaesthesia and Anaesthesia in small and large animals.	1
5.	Use of various pre-anesthetic and anesthetic agents in small animals	1
6.	Use of various pre-anesthetic and anesthetic agents in large animals	1
7.	Anesthetic triad	1
8.	Balanced anesthesia	1
9.	Total intravenous anesthesia	1

10.	Regional and local nerve blocks using local anesthetics	1
11.	Repair of different wounds, using drains, bandages and bandaging techniques	1
12.	Alpha-2 agonists and their combinations in domestic animals	1
13.	Monitoring of anesthesia	1
14.	Reversal of sedation and analgesia induced by alpha-2 agonists	1
15.	Practice of anesthesia in clinical cases	1
16.	Importance of Record keeping in anesthesia and euthanasia	1

VSR 505: Diagnostic Imaging Techniques (2+1)

Theory

Sr. No.	Topics	No. of Lectures
Unit I		
1.	Regulations regarding establishment and handling of x-ray units, requirements for establishment of x-ray units	1
2.	Conventional and digital X-ray machine	1
3.	X-ray films, cassettes, screen	1
4.	X-ray production, qualities of x-rays	1
5.	Image formation and dark room procedures	1
6.	Image plate, formation of radiograph technique chart, artifacts and their prevention	1
7.	Radiographic quality (Contrast, density and details)	1
8.	Radiographic accessories	1
9.	Radiographic positioning for different organs/parts in small and large animals	1
Unit II		
10.	Plain and contrast radiographic techniques of small animals	1
11.	Plain and contrast radiographic techniques of large animals	1

12.	Contrast radiographic techniques of blood vessels in animal	1
13.	Fluoroscopy/ C-arm	1
14.	Principles of radiographic interpretation	1
Unit III		
15.	Principles of radiation therapy, medical radioisotope curves	1
16.	Radiation laws and regulations	1
17.	Radiation hazards and monitoring of radiographic exposure to personnel	1
18.	Protection from the radiation hazards	1
Unit IV		
19.	Basic physics of ultrasound waves	1
20.	Basic physics of ultrasound image formation	1
21.	Scanning principles of ultrasound	1
22.	Transducers, equipment controls, modes of display	1
23.	Terminology used for echotexture	1
24.	USG artifacts	1
25.	Common USG artifacts in small animals	1
26.	Acoustic enhancement during the USG examination	1
Unit V		
27.	Doppler techniques echocardiography	1
28.	Application of Doppler technique echocardiography	1
29.	Introduction to nuclear imaging techniques	1
30.	Introduction to computerized tomography, magnetic resonance imaging, positron emission tomography techniques	1
31.	Introduction to magnetic resonance imaging and positron emission tomography techniques	1

Practical - VSR- 505

Sr. No.	Topics	No. of Practicals
1.	Acquaintance with imaging equipment	1
2.	Acquaintance with computed radiography	1
3.	Acquaintance with digital radiography systems	1
4.	Dark room processing techniques and X-ray film handling	1
5.	Formulation of technique chart with fixed kVp and variable mAs	1
6.	Radiographic artefacts and their prevention	1
7.	Basics of radiographic interpretation of diseases – Hard tissue	1
8.	Basics of radiographic interpretation of diseases – Soft tissue	1
9.	Radiography positioning of different regions in domestic animals	1
10.	Contrast radiographic techniques – G.I. Tract	1
11.	Contrast radiographic techniques – Urogenital and musculoskeletal system	1
12.	Interpretation of radiographs	1
13.	Interpretation of radiographs	1
14.	PACS	1
15.	Practice of ultrasonographic imaging	1
16.	Ultrasonographic report writing	1

Lecture Schedule - Theory
VSR – 507 (2+1) Orthopaedic Surgery

Aim of the course: To learn about various affections of bones, joints, tendons, ligaments and feet and their treatment in companion and farm animals.

Sr. No	Name of Topics	No of lectures
Unit I		

1.	Bone structure and function, growth, response to injury, fractures and luxations	1
2.	Classification of fracture	1
3.	Fracture healing, Biological osteosynthesis	1
Unit II		
4.	Biomechanics of fracture healing	1
5.	Considerations for selection of fixation techniques	1
6.	Current trends in treatment of fractures of different bones of forelimb (scapula, humerus, radius and ulna, carpals, metacarpals and phalanges) in companion animals	1
7.	Current trends in treatment of fractures of different bones of hindlimb (Pelvis, femur, tibia and fibula, trasals, metatarsals and phalanges) in companion animals	1
8.	Current trends in treatment of fractures of different bones of forelimb (scapula, humerus, radius and ulna, carpals, metacarpals and phalynx) in farm animals	1
9.	Current trends in treatment of fractures of different bones of hindlimb (scapula, humerus, radius and ulna, carpals, metacarpals and phalynx) in farm animals	1
10.	Diseases of bone (developmental bone disease, osteomylitis, hypertrophic osteopathy)	1
11.	Diseases of bone (nutritional osteopathies, bone tomour and fracture)	1
Unit III		
12.	Various affections of the joints and their treatment (Classification of joints, components and healing process and arthroscopy)	1
13.	Non inflammatory joint diseases and their treatment	1
14.	Inflammatory joint diseases and their treatment	1
15.	Various affections of the ligaments and tendons and their treatment (anatomical considerations, tendon healing, principles of tendon surgery)	1
16.	Tendon injuries, luxation, contracted tendons and spastic paresis	1

17.	Tenosynovitis, bursitis, cranial cruciate ligament rupture, upward fixation of patella	1
Unit IV		
18.	Spinal affections and injury to axial skeleton (anatomy, etiology, types, diagnosis and its treatment)	1
19.	Specific fracture and dislocations of the spine (Atlantoaxial instability, cervical spondylomyopathy)	1
20.	Cervical vertebral fractures, thoracic and lumbar fractures and lumbosacral fractures	1
Unit V		
21.	Method of evaluation of conformation of the limb, cranial view, lateral view	1
22.	Faults in conformation of the forelimbs and hoof	1
23.	Faults in conformation of the forelimbs and hoof	1
24.	Anatomy of hoof	1
25.	Anatomy of limbs and foot (Anatomical, conformational and pathological causes of lameness and allied surgical conditions of fore and hind limbs)	1
26.	Classification of lameness	1
27.	Etiology and diagnosis of lameness	1
28.	Surgical conditions of forelimb of horse	1
29.	Surgical conditions of hindlimb of horse	1
30.	General methods of therapy for equine lameness	1

Lecture Schedule - Practical
VSR – 507 (2+1) Orthopaedic Surgery

Sr. No	Topics	No of lectures
1.	Application of Plaster of Paris cast	1
2.	Application of fiberglass cast	1
3.	Application of Roberts Jones bandage	1

4.	Application of modified Schroeder Thomas splint	1
5.	Application of Coaptation splint, sling application	1
6.	Practice of IM pinning, wiring	2
7.	Practice of bone plating	1
8.	Practice of inter locking nailing	1
9.	Practice of external skeletal fixation	1
10.	Practice of arthrotomy	1
11.	Practice of tenotomy	1
12.	Examination of limbs for lameness	1
13.	Desmotomy, nerve blocks, injections in joints	1
14.	Operations for arthritis and hoof surgery	1
15.	Corrective shoeing	1

VSR 510: Ophthalmology (1+1=2) Theory

Sr.No	Topic	No of lecture
	Unit I	
1.	Anatomy and physiology of eye and its adnexa	1
2.	Ophthalmic examination and diagnosis,	1
3.	Ophthalmic diagnostic instrumentation	1
4.	Anaesthesia during various eye surgery	1
	Unit II	
5.	General consideration for eye surgery in companion and farm animals	1
6.	Therapeutic agents for eye diseases and surgery of eye lids, lacrimal apparatus, naso-lacrimal duct	1
	Unit III	
7.	Diseases of conjunctiva	1
8.	Diseases of cornea, sclera.	1
9.	Diseases of iris, orbit	1
10.	Diseases of lens	1

11.	Diseases of vitreous and aqueous humour	1
12.	Diseases of retina and optic nerve	1
13.	Eye tumours, enucleation, exenteration	1
	Unit IV	
14.	Ocular manifestations of systemic diseases	1
	Unit V	
15.	Neuro-ophthalmology	1
16.	Ocular emergencies and Management	1

VSR 510: Ophthalmology (1+1=2) Practical

Sr no	Topic	No of lecture
1.	Ophthalmic instrumentation	1
2.	Examination of the eye and its adnexa	1
3.	Ophthalmic surgery preparation of patient, suture materials for eye surgery	1
4.	Anaesthesia for ophthalmic	1
5.	Canthotomy, tarsorrhaphy	1
6.	Keratoplasty, anterior chamber paracentesis	1
7.	Flushing of naso-lacrimal duct	1
8.	Iridectomy	1
9.	Phacoemulsification	1
10.	Implantation of foldable lens	1
11.	Surgical treatment of entropion	1
12.	Surgical treatment of cherry eye	1
13.	Schirmer tear test	1
14.	Use of fluorescein dye in corneal ulcer	1
15.	Glaucoma surgery	1

16.	Eye worm removal	1

List of PG Courses Ph.D. (Regular) –
Veterinary Surgery and Radiology

Lecture Schedule of Ph.D degree programme courses Proposed in ICAR syllabus (2021) and finalized by BOS in the discipline of Veterinary Surgery & Radiology, MAFSU, Nagpur in on 24/12/2021.

Course Title : Clinical Practice-I
Course Code : VSR 601
Credit Hours: 0+2

Sr. No.	Name of topic	Number of lectures
1	Application of inhalant anaesthesia machine	02
2	Application of Computerized or digital radiography system	01
3	Application of Ultrasonography	01
4	Application of Endoscopy,	01
5	Application of Electro-surgery	01
6	Application of Cryosurgery	01
7	Application of Operating microscope	01
8	Application of Phacoemulsification	01
9	Application of physiotherapy	01
10	Client management and counseling	03
11	Treating surgical cases using advances techniques	05
12	management of surgical facilities	04
13	ICU equipment and personnel	03
14	Planning and formulating clinical research projects using the clinical data and facilities	04
15	Data analysis and writing of clinical case reports and success stories about the clinical achievements	03

VSR-602: Clinical Practice- II (0+2)

Practical

Sr.No	Topic	No of lecture
1	Radiographic Positioning and interpretation – Radiography of head, neck thorax and abdomen – detail, density and contrast	2
2	Factors affecting radiographs and Artifacts	1
3	Contrast Radiography ofvarious systems GIT, nervous system, Urinary system, etc	1
4	Fractures, classification and its radiographic report writing.	2
5	Basics of Ultrasonography and its interpretation	1
6	USG of abdomen	1
7	Ultrasonography of eye, echocardiography, doppler.	2
8	Management of the radiography section and maintenance of the records.	1
9	Electro surgery and Cryosurgery	1
10	Introduction to Veterinary endoscopy and equipments	1
11	Use of flexible endoscopy, gastroscopy, Bronchoscopy, cyctoscopy, etc. Collection of biopsies, fluids for cytology.	1
12	Rigid Endoscopy - Laparoscopy and its applications. Otoscopy, esophagoscopy, etc	1
13	Acquaintance to the operating Microscope, direct and indirect ophthalmoscopy.	1
14	Ocular affections, Ocular emergencies and Management	1
15	Cataract surgery -Phacoemulsification	1
16	Physiotherapy and acquaintance to Physiotherapy equipments and their application.	1
17	Managing Surgical emergencies and cases.	1
18	Management of the Operation theater operations and maintenance of the records.	1
19	Attending various surgical cases rgarding to soft tissue surgeries	2
20	Attending various fracture management cases.	2

21	Attending various specialized surgeries	2
22	Client management and counselling	1
23	ICU equipments, application and management of ICU unit.	1
24	Planning and formulating clinical research projects using clinical data and facilities	1
25	Data analysis and writing clinical case reports, success stories etc.	1
	Total	32

Lecture Schedule - Practical

VSR – 603 (0+2) Clinical Practice-III

Aim of the course: To learn clinical techniques and procedures in anaesthesia, Diagnostic imaging and surgery

Sr. No	Name of topics	No of lectures
	Application of inhalant anaesthesia in bovine	1
	Application of inhalant anaesthesia in equine	1
	Application of inhalant anaesthesia in canine	1
	Application of computerized or digital radiography system for diagnosis of various affections of farm animals	1
	Application of computerized or digital radiography system for diagnosis of various affections of companion animals	1
	Application of ultrasonography for thoraco abdominal disorders in farm animals	1
	Application of ultrasonography for thoraco abdominal disorders in companion animals	1
	Application of ultrasonography for the diagnosis of urogenital diseases	1
	Application of endoscopy in farm animals	1
	Application of endoscopy in companion animals	1
	Application of endoscopy for biopsy in farm animals	1
	Application of endoscopy for biopsy in companion animals	1

	Application of electro-surgery	1
	Application of cryosurgery	1
	Application of operating microscope in companion animals	1
	Application of phacoemulsification and physiotherapy	1
	Client management and counseling	1
	Client management and counseling	1
	Treating surgical cases using advances techniques in companion animals	1
	Treating surgical cases using advances techniques in farm animals	1
	Managing surgical facilities	1
	ICU equipment and personnel	1
	ICU equipment and personnel	1
	Planning and formulating clinical research projects using the clinical data and facilities	1
	Planning and formulating clinical research projects using the clinical data and facilities	1
	Data analysis and writing of clinical case reports	1
	Data analysis and writing of clinical case reports	1
	Success stories about the clinical achievements	1
	Success stories about the clinical achievements	1
	Success stories about the clinical achievements	1
	Success stories about the clinical achievements	1
	Success stories about the clinical achievements	1

VSR 607: Advances in Diagnostic Imaging Techniques (2+1)

Sr. No.	Topics	No. of Lectures

Unit I		
1.	Techniques of ultrasonography for diagnosis of different affections of neck	1
2.	Techniques of ultrasonography for diagnosis of different affections of neck	
3.	Techniques of ultrasonography for diagnosis of different affections of thorax	1
4.	Techniques of ultrasonography for diagnosis of different affections of thorax	
5.	Ultrasonographic diagnosis of thoracic affections by using Doppler techniques	1
6.	Ultrasonographic diagnosis of thoracic affections by using echocardiography	1
7.	Techniques of ultrasonography for diagnosis of different affections of abdomen and pelvis (Urinary bladder and prostrate)	1
8.	Techniques of ultrasonography for diagnosis of different affections of synovial joints	1
9.	Techniques of ultrasonography for diagnosis of different affections of muscle and tendons	1
10.	Techniques of ultrasonography for diagnosis of different affections of eye	1
Unit II		
11.	Interpretation of ultrasonogram of different body organs (normal and abnormal)	1
12.	Interpretation of ultrasonogram of blood vessels (normal and abnormal)	1
13.	Interpretation of ultrasonogram of different body organs/ vessels (normal and abnormal)	1
14.	Therapeutic applications of ultrasonography for physiotherapy	1
Unit III		
15.	Imaging modalities - MRI, CT scan	1
16.	Imaging modalities - Nuclear medicine	1
17.	Imaging modalities - Positron emission tomography technique	1
18.	Imaging modalities - Single-photon emission computed tomography	1
19.	Nuclear Scintigraphy - Isotopes (natural and man-made), Cyclotron reactor	1
20.	Nuclear Scintigraphy - Half-life, decay pattern, Storage and handling of radioactive material	1

Unit IV		
21.	Methods in the detection of isotopes, Geiger-Mullar tubes, photo-multiplier tube	1
22.	Medical use of isotope, dosimetry	1
23.	Nuclear medicine and its use in diagnosis of thyroid	1
24.	Nuclear medicine and its use in diagnosis of kidney	1
25.	Nuclear medicine and its use in diagnosis of bone	1
26.	Nuclear medicine and its use in diagnosis of liver function studies	1
27.	Labelling of isotope and biological uses	1
28.	Detonation and fission products, image storage and transfer	1
29.	DICOM, PACKS and teleinterpretation	1

Practical

Sr. No.	Topics	No. of Practicals
1.	Hands-on-practice on different visceral organs collected from slaughter house for ultrasonographic scanning in water tub, dry and wet lab training	1
2.	Hands-on-practice on different visceral organs collected from slaughter house for ultrasonographic scanning in water tub, dry and wet lab training	1
3.	Hands-on-practice on different visceral organs collected from slaughter house for ultrasonographic scanning in water tub, dry and wet lab training	1
4.	Hands-on-practice on different visceral organs collected from slaughter house for ultrasonographic scanning in water tub, dry and wet lab training	1
5.	Hands-on-practice on different visceral organs collected from slaughter house for ultrasonographic scanning in water tub, dry and wet lab training	1
6.	Hands-on-practice on different visceral organs collected from slaughter house for ultrasonographic scanning in water tub, dry and wet lab training	1
7.	Demonstration and practice on different clinical cases reported for ultrasonography	1
8.	Demonstration and practice on different clinical cases reported for ultrasonography	1

9.	Demonstration and practice on different clinical cases reported for ultrasonography	1
10.	Demonstration and practice on different clinical cases reported for ultrasonography	1
11.	Demonstration and practice on different clinical cases reported for ultrasonography	1
12.	Demonstration and practice on different clinical cases reported for ultrasonography	1
13.	Demonstration and practice on different clinical cases reported for ultrasonography	1
14.	Visit to places with facility of other alternate imaging techniques	1
15.	Visit to the facility of MRI	1
16.	Visit to the facility of CT scan	1

Course Title: Special Problem in Anesthesia
Course No: VSR 689 Credit Hours: 0+2

Practical

Investigative anesthetic problems in clinical models, didactic and interpersonal learning-teaching, problem solving self-learning strategies in problems related to anesthesia.

The topic of Special problem in anaesthesia should be finalize by the major advisor in consultation with the Advisory Committee of the student.

Depending on the facility available with the institution, the topic should be allotted to students undergoing Ph. D. degree program.

It should be mandatory on the part of the student to submit (with acceptance letter) / publish at least one article in a journal of repute based on a special problem during that semester only.

VSR 687: Clinical Case Conference (0+1)
Practicals

Students have to present a seminar on 4 unusual/ interesting clinical cases done in the semester. Compile them from presentation to follow up and also submit the write up in soft or hard copy. Total 2 cases at Mid term and 2 cases at final examination.
Student have to prepare PPT presentation and booklet and present / submit during respective time.
***Student should submit with acceptance letter / publish at least one paper in the journal of repute.**

Total 50 marks.

5. Lecture Schedule – UG, PG , PhD - Theory / Practical Schedule – Approved by BoS – Subject wise - **Veterinary Surgery and Radiology**

6. Teaching Schedule :UG, PG , PhD - Prepared by – Course Teacher – Year wise / Course Wise

7. Academic Calendar – UG, PG, PhD -Year wise / Semester Wise

8. College Classes Time Table :UG, PG , PhD - Year wise / Semester Wise

9. Examination Time Table – UG, PG , PhD - Semester / Year wise - Theory and Practical