

(Information to be uploaded in Standard Proforma's)

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

- List of UG Courses ( B.V.Sc & AH ) As per latest MSVE Guidelines) , B.Tech. (D.T.) and B.F.Sc as per ICAR – V Deans Committee – 2016.

Sr No	Course No.	Title	Credit	Course offered in the Year
1.	VCP I	Veterinary Clinical Practices	0 + 1	III year
2.	VCP II	Veterinary clinical Practices	0 + 6	IV year

- List of PG Courses (MVSc ) and M.Tech. (Dairy Technology)

Sr No	Course No .	Title	Credit	Semester

5. Lecture Schedule – UG, PG , PhD - Theory / Practical Schedule – Approved by BoS – Subject wise

**MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY,  
NAGPUR**

**VETERINARY CLINICAL COMPLEX**

Practical schedules as per the Veterinary Council of India Minimum Standards of Veterinary Education- (Bachelor of Veterinary Science and Animal Husbandry - Degree Course) Regulations, 2016.

**PART V**

**COURSES AND COURSE CONTENTS**

<b>1. PROFESSIONAL YEARWISE DISTRIBUTION OF COURSES</b>
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(1) FIRST PROFESSIONAL - VCP - Nil (Total credits for professional year 14+7=21)
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(2) SECOND PROFESSIONAL- VCP - Nil (Total credits for professional year 13+6=19)
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(3) THIRD PROFESSIONAL - Veterinary Clinical Practices – I (0+1=1) (Total credits for prof.year 15+9=24)
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(4) FOURTH PROFESSIONAL - Veterinary Clinical Practices – II (0+6=6) (Total credits for prof.year 8+9=17)
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**VETERINARY CLINICAL PRACTICES-I (Third year)      Credit Hours: 0+1**

Sr. No.	Topic	No. of practical's
1-4	Orientation and understanding the working of Veterinary Clinics including hospital set up, administration and work force management.	4
5-6	Doctor client interaction,	2
7-8	Orientation to local language or dialect or local terminology of the diseases.	2
9	Registration, filling up registration cards	1
10-11	History taking	2
12-13	Handling and restraining of animals.	2
14	Recording of temperature	1
15	Recording of respiration	1
16	Recording of pulse	1
17	Recording of ruminal motility and examination of mucus membrane.	1
18	Familiarization and practice of first aid procedures- Medical disorders	1
19	Familiarization and practice of first aid procedures- Surgical disorders	1

20	Familiarization and practice of first aid procedures- Gynecological disorders	1
21	Practice of collection, labeling, packaging and storage of laboratory samples- Biochemical analysis.	1
22	Practice of collection, labeling, packaging and storage of laboratory samples- Parasitological examinations.	1
23	Practice of collection, labeling, packaging and storage of laboratory samples- Microbiological investigations.	1
24	Practice of collection, labeling, packaging and storage of laboratory samples- Pathological examinations.	1
25	Practice of collection, labeling, packaging and storage of laboratory samples- Toxicological investigations.	1
26-28	Preparation and sterilization of surgical packs, instruments, drapes and operation theaters.	3
29-32	Familiarization with antiseptic dressing techniques and bandaging	4

#### **Veterinary Clinical Practice–II Fourth Year (Credit hours: 0+6=6) Ambulatory Section**

<b>Sr. No.</b>	<b>Topic</b>	<b>No. of practical's</b>
<b>1-48</b>	Handling, examination, diagnosis and treatment of sick animals in the field conditions.	<b>48</b>

#### **Diagnostic Section**

<b>Sr. No.</b>	<b>Topic</b>	<b>No. of practical's</b>
<b>1-2</b>	Collection, labeling, transportation, and preservation of body fluid samples	<b>02</b>
<b>3-4</b>	Clinical evaluation of blood (hemoglobin, packed cell volume, total erythrocyte count, erythrocytic sedimentation rate, total leukocytic count and differential leukocytic count) from clinical samples	<b>02</b>
<b>5-6</b>	Clinical significance and interpretation of examination of urine samples	<b>02</b>
<b>7-8</b>	Clinical significance and interpretation of serum glucose, lipids, proteins and ketone bodies from samples.	<b>02</b>
<b>9-10</b>	Liver function tests – Total, Direct and Indirect bilirubin, SGOT, SGPT	<b>02</b>
<b>11-12</b>	Kidney function tests- Blood urea nitrogen, Creatinine, Uric acid,	<b>02</b>
<b>13</b>	Pancreatic function tests	<b>01</b>
<b>14</b>	Clinical significance and interpretation of electrolytes from samples.	<b>01</b>
<b>15-16</b>	Evaluation of acid-base balance and interpretation	<b>02</b>
<b>17-19</b>	Biochemical aspects of digestive disorders, endocrine functions.	<b>03</b>
<b>20</b>	Evaluation of rumen fluid	<b>01</b>

<b>21</b>	Role of enzymes for detection of tissue or organ affection.	<b>01</b>
<b>22-23</b>	Preparation of microscopic slides from tissue collected for diagnosis and its histopathological interpretation	<b>02</b>
<b>24-26</b>	Examination of biopsy and morbid material for laboratory diagnosis.	<b>03</b>
<b>27-30</b>	Evaluation of faecal samples for diagnosis of parasitic diseases	<b>04</b>
<b>31-32</b>	Examination of skin scrapings	<b>02</b>
<b>33-34</b>	Examination of blood for diagnosis of hemoprotozoan and filarial diseases	<b>02</b>
<b>35-37</b>	Orientation of a clinical Microbiology laboratory, collection, transport and processing of specimens from clinical cases for diagnosis of important bacterial, fungal, and viral diseases.	<b>03</b>
<b>38-40</b>	Isolation of bacteria from clinical samples, identification of bacteria by Grams staining and cultural or biochemical characteristics.	<b>03</b>
<b>41</b>	Drug sensitivity and rationale for therapy	<b>01</b>
<b>42-44</b>	Diagnosis of diseases by employing tests like Agar gel precipitation test, ELISA etc.	<b>03</b>
<b>45-46</b>	Collection of toxicological samples and Spot tests for detection of toxicants	<b>02</b>
<b>47-48</b>	Interpretation of laboratory data/findings in relation to specific diseases.	<b>02</b>

#### **Medicine Section**

<b>Sr. No.</b>	<b>Topic</b>	<b>No. of practical's</b>
1-2	Understanding the different methods of record keeping, retrieval, processing, analysis and interpretation of data.	02
3-6	Involvement in outpatient department (OPD), Indoor patient, Critical care or intensive care unit, sanitation, practice management etc.	04
7-10	Clinical examination techniques: Inspection, Palpation, percussion and auscultation.	04
11-12	Familiarization with practice of Emergency medicine.	02
13-18	Relating generic and trade names of drugs along with their doses, indications and contraindications to prescribed treatment regimens.	06
19	Systematic examination of various systems- Respiratory system	01
20	Systematic examination of various systems – Cardiovascular system	01
21	Systematic examination of various systems – Digestive System	01
22	Systematic examination of various systems – Nervous System	01
23	Systematic examination of various systems – Integumentary System	01
24	Systematic examination of various systems – Musculoskeletal System	01
25	Routes and techniques of administration of medicaments	01

26-30	Tentative and confirmatory diagnosis and treatment of common clinical cases like pharyngitis, laryngitis, stomatitis, indigestion, gastritis, ruminal impaction, tympany, enteritis, traumatic reticuloperitonitis, traumatic pericarditis, pneumonia, haemoglobinurea, haematuria, milk fever, ketosis, rickets, osteomalacia, common poisoning, and others clinical cases as reported in the section.	05
31-32	Preparation of case records; follow-up records etc.	02
33-34	Readiness to treat and handle casualties and other emergencies in the clinics.	02
35	Learning and practicing passing of stomach and naso-gastric tube.	01
36-38	Screening of livestock or poultry through tests, mass diagnostic campaigns.	03
39-42	Vaccination, deworming, spraying and mastitis prevention and control programmes in the field.	04
43-45	Learning the use of various advance non invasive diagnostic aids like Ultrasonography, Ophthalmoscope, Otoscopy etc.	03
46	Practice of feeding of sick animals.	01
47	Acts and regulations pertaining to generation and disposal of biomedical wastes in veterinary institutions.	01
48	Biomedical waste generation, handling, storage, sorting, coding, transportation and disposal. Hazards of biomedical waste, and impact of biomedical waste on the environment.	01

### Gynecology and Obstetrics Section

Sr. No.	Topic	No. of practicals
1-3	Familiarization with common drugs and hormones used in reproductive disorders including infertility	03
4-6	Per rectal examination of genitalia (Cow, Buffalo, Horse)	03
7	Per vaginal examination of genitalia (Cow, Buffalo, Horse)	01
8-9	Abdominal palpation of Genitalia (Goat, Sheep)	02
10-12	Practice of Artificial Insemination	03
13-14	Collection of cervical and vaginal mucus for cytology	02
15-17	Pregnancy diagnosis (Cow, Buffalo, Horse)	03
18	Pregnancy diagnosis (Goat, Sheep)	01
19-20	Pregnancy diagnosis by USG (Cow, Buffalo, Horse)	02
21-22	Pregnancy diagnosis by USG (Goat, Sheep)	02

23-26	Clinical examination and management of cases of anoestrus, silent oestrus, infertility and conception failure (Repeat Breeding)	04
27-30	Treatment of cases of metritis, cervicitis vaginitis and endometritis	04
31-32	Study of Epidural and local anaesthesia for gynaecological and obstetrical cases.	02
33-38	Examination and handling of cases of dystocia, fetotomy, cesarean etc.	06
39-41	Handling and management of cases of retention of placenta or fetal membranes	03
42-44	Handling and management of cases of ante and post partum prolapse	03
45-46	Breeding soundness examination of Breeding bulls	02
47	Castration of male calves	01
48	Filling of clinical case records and maintenance of record	01

### **Surgery and Radiology section**

Sr. No.	Topic	No. of practicals
1.	Familiarization and understanding the use of equipments used in surgical sections of the VCC.	01
2.	Restraining and positioning of different species of animals for examinations, diagnosis and surgical treatment	01
3.	Prescription of common drugs, their doses and uses in clinical surgical practice	01
4.	Filling of clinical case records and their maintenance	01
5.	Preparation and sterilization of surgical packs, instruments, drapes	01
6.	Preparation and sterilization operation theaters	01
7.	Passing of stomach tube and gastric tube	01
8.	Catheterization and urine collection	01
9.	Techniques of examination of neuromuscular and skeletal functions	01
10.	Familiarization with antiseptic dressing techniques, bandaging,	01
11.	Familiarisation with the landmarks for the approach to various visceral organs.	01
12.	Familiarization abdomino-centesis, thoracocentesis	01
13.	Rhinocopy,Bronchoscopy	01
14.	Nasogastric intubation and endoscopy in horse	01
15.	Intubation and endoscopy in cattle	01
16.	Intubation and endoscopy in dogs	01
17.	Use of cystoscopy in veterinary	01
18.	Topography anatomy of animals	01
19.	Radiographic positioning, terminology and interpretation	01
20.	Principles of Ultrasound and interpretation	01

21.	Treatment and Management of various surgical conditions including inflammation, wounds,	01
22.	Treatment and Management of various surgical conditions abscess, cysts	01
23.	Treatment and surgical management of various tumors	01
24.	Treatment and surgical management of various hernia, hematoma, hemorrhage	01
25.	Treatment and surgical management of various sinus, fistula, necrosis, gangrene	01
26.	Treatment and surgical management of various burns, etc.	01
27.	Laparoscopic Surgery-Intoduction	01
28.	Treatment and surgical management of sprain, tendinitis, tenosynovitis	01
29.	Management and treatment of fractures (Internal fixation)	01
30.	Management and treatment of fractures (External fixation)	01
31.	Post operative care after orthopedic surgery and Physiotherapy	01
32.	Management and treatment of dislocations and other affections of joints	01
33.	Radial nerve paralysis, Femoral nerve paralysis, Facial nerve paralysis	01
34.	Ophthalmic examination : Introduction	01
35.	Eye worm and other affections of Eye	01
36.	Irregular teeth and their rasping.	01
37.	Treatments and Surgical management of tail	01
38.	Knuckling, upward fixation of patella (medical patellar desmotomy) .	01
39.	Spavin,Splint,OCD,Stringhalt etc.	01
40.	Tenotomies, suturing of tendon, shortening of tendon	01
41.	Palpation and visualisation of viscera	01
42.	Thoracoscopy, Thoracotomy .	01
43.	Rumenotomy, laparotomy,	01
44.	Urethrotomy, Cystorrhaphy	01
45.	Castration, vasectomy, caudectomy	01
46.	<u>Thoracotomy, cystotomy, cystorrhaphy and splenectomy</u>	01
47.	<u>Examination of horse for soundness, lameness</u>	01
48.	<u>Preparation of certificate for soundness.</u>	01

### Pet animal section

Sr. No.	Topic	No. of practicals
1-2	Registration, filling up registration cards, history taking	02
3-5	Relating generic and trade names of drugs along with their doses, indications and contraindications to prescribed treatment regimens.	03
6	Familiarization and practice of first aid procedures and emergency medicine.	01
7-10	Clinical examination techniques- Inspection, palpation, percussion and auscultation	04

11-13	Recording of clinical observations viz. temperature, respiration, pulse, cardiac sounds, cardiac function, pulmonary function, functional motility of digestive systems	03
14-17	Systematic examination of various body systems	04
18-19	Routes and techniques of administration of medicaments.	01
20-23	Diagnosis and treatment of pet animal diseases.	04
24-25	Practice of collection, labeling, packaging and evaluation of laboratory samples.	02
26	Preparation of case records; follow-up records etc	01
27-28	Vaccination, deworming and tick control programmes.	02
29	Rectal examination of genitalia, vaginal examination	01
30-31	Practice of pregnancy diagnosis- abdominal palpation, USG	02
32-33	Examination of cases of anoestrus, silent estrus, pseudopregnancy and conception failure	02
34	Vaginal cytology in Bitches	01
35	Artificial Insemination in Bitches	01
36	Caesarian section and Ovariohysterectomy in bitches	01
37	Castration of dogs	01
38	Epidural and local anesthesia for gynecological cases	01
39-40	Restraining and positioning techniques for examination, diagnosis and surgical treatment	02
41	Preparation of surgical packs, sterilization procedures for surgical instruments	01
43-44	Passing of stomach tube and gastric tube	02
45	Catheterization and urine collection	01
46-47	Familiarization with antiseptic dressing techniques	02
48	Topography anatomy of pet animals. Radiographic positioning and terminology.	01

### **GUIDELINES FOR CONDUCTING VCP PRACTICALS**

1. In-Charge VCC/Head of Clinics will act as course coordinator for VCP courses.
2. Each practical of VCP will be of three hours duration.
3. The students shall be Imparted the trainings on rotation basis in the different sections of Veterinary Clinical Complex (VCC) viz. : Ambulatory Section, Diagnostic laboratory, Medicine, Gynecology and obstetrics, Surgery and radiology and Pet section.
4. Each Veterinary college should adopt five villages for conducting Ambulatory clinics where in the health, production and treatment part should be taken care of in a holistic manner.
5. The faculty from departments of Veterinary Medicine, Veterinary Surgery and Radiology, Veterinary Gynecology and Obstetrics shall be on rotational duty during normal or off hours and holidays.
6. The Diagnostic Laboratory of VCC shall run in collaboration with the Department of Pathology and Physiology and Biochemistry.
7. Department of Veterinary Microbiology, Veterinary Parasitology and Veterinary Pharmacology shall assist in the VCP.



8. Students of VCP should be involved in clinical activities during off hours and holidays on rotational basis.

### **Evaluation / Examination pattern for VCP courses**

- The examination for VCP shall be conducted twice a year i.e. first practical exam after completion of 50% syllabus and the second one, when the course is completed but the second exam shall comprise of entire syllabus.
- Annual professional examination shall be held after the completion of 100% course content in each subject.

#### **Distribution of marks**

Sr. No.	Component	First internal Examination	Second Internal Examination	Annual Professional Examination
1	Submission of 10 complete cases each of Surgery, Medicine, Gynaecology	5	5	--
2	Case presentation	10	10	10
3	Review of treatment of 5 cases	10	10	15
4	Written Objective Questions (Surgery, Medicine, Gynaecology and Lab. Diagnosis)	20	20	20
5	Viva	5	5	5
	Total	50	50	50
		Best one of these two 50 Marks		50
	Total = 100 Marks			

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
10. Result –UG, PG , PhD - Semester Wise / Year Wise