

DEPARTMENT OF VETERINARY PHARMACOLOGY & TOXICOLOGY
M J F COLLEGE OF VETERINARY & ANIMAL SCIENCE CHOMU, JAIPUR

Course Outline for Theory (Session: 2021-22)

Tentative Lecture Schedule 3rd Year (MSVE-2016)

Course Title: Veterinary Pharmacology & Toxicology

Credit Hrs.4+1=5

Duration of Lecture Class: 24-08-2021 to 20.05.2022

<i>UNIT 1</i>		<i>GENERAL VETERINARY PHARMACOLOGY</i>	
S.No.	Date	Topic to be Covered	Hrs.
1.	24.08.2021	Introduction and Historical to Pharmacology	1
2.	25.08.2021	Branches & Scope of Pharmacology	1
3.	26.08.2021	Principles of drug activity	1
4.	27.08.2021	Sources & Nature of Drugs	1
5.	31.08.2021	Pharmacological terms & definitions	1
6.	01.09.2021	Nomenclature of Drugs	1
7.	02.09.2021	Terms related to drug activity and	1
8.	03.09.2021	Routes of drug administration	1
9.	07.09.2021	Pharmacokinetics (absorption, distribution, biotransformation and excretion of drugs)	1
10.	08.09.2021	Pharmacodynamics (Concept of drug and receptor)	1
11.	09.09.2021	Dose-response relationship and Drug interactions	1
12.	14.09.2021	Terms related to Drug activity & Factors modifying the drug effect and dosage	1
13.	15.09.2021	Adverse drug reactions	1
	<i>UNIT 2</i>	<i>DRUGS ACTING ON AUTONOMIC NERVOUS SYSTEM</i>	
14.	16.09.2021	Neurohumoral transmission	1
15.	17.09.2021	Pharmacology of neurotransmitters	1
16.	21.09.2021	Adrenoceptors agonists and antagonists	1
17.	22.09.2021	Adrenergic neuron blockers	1
18.	23.09.2021	cholinoceptor agonists and antagonists.	1
19.	24.09.2021	Drugs acting on Cholinergic receptors	1
20.	28.09.2021	Anticholinesterase agents	1
21.	29.09.2021	Pharmacology of Neurotransmitters	1
22.	30.09.2021	Drugs acting on autonomic ganglia	1
23.	01.10.2021	Structure activity relationship of adrenergic neurons	1
24.	05.10.2021	Comparison of Competetative Depolarising Agent	1
25.	06.10.2021	Autonomic and muscarinic sites	1
29.	07.10.2021	Centrally acting muscle relaxant	1
30.	08.10.2021	Ganglionic neurotransmitters	1
31.	14.10.2021	Ganglionic blocking agents	1
32.	19.10.2021	Clinical use of Adrenergic Drugs	1
34.	20.10.2021	Clinical use of Cholinergic drugs	1
35.	21.10.2021	Clinical use of Antimuscarinic drugs	1
36.	22.10.2021	Clinical use of Antimuscarinic drugs	1
37.	26.10.2021	General consideration of autocooids	1
38.	27.10.2021	Difference between Autocooids & hormones	1
40.	28.10.2021	Classification of autocooids	1
41.	29.10.2021	Synthesis of histamine	1
42.	02.11.2021	Histaminergic receptors	1

43.	09.11.2021	Histamine release	1
44.	10.11.2021	Pharmacological effects of histamine	1
45.	11.11.2021	H1 receptor antagonist	1
46.	12.11.2021	Pharmacological effects of H1 receptor antagonist	1
FIRST INTERNAL ASSESSMENT EXAMINATION			
47.	16.11.2021	Non- sedative H1 antagonist	1
48.	17.11.2021	Classification of H1 receptor	1
49.	18.11.2021	H2 receptor antagonist	1
50.	23.11.2021	5- Hydroxy tryptamine	1
51.	24.11.2021	Biosynthesis and degradation of 5-HT	1
52.	25.11.2021	Serotonergic receptors (agonist & antagonist)	1
53.	26.11.2021	Prostaglandin, eicosanoids, platelets activating factor, Angiotensins and Bradykinin	1
	UNIT 3	DRUGS ACTING ON CENTRAL NERVOUS SYSTEM	1
54.	30.11.2021	Classification of drugs acting on CNS.	1
55.	01.12.2021	Mechanism and stages of general anaesthesia.	1
56.	02.12.2021	Inhalant anaesthetics	1
57.	03.12.2021	Intravenous anaesthetics.	1
58.	07.12.2021	Dissociative anaesthetics.	1
59.	08.12.2021	Hypnotics and sedatives	1
60.	09.12.2021	Psychotropic drugs,	1
61.	10.12.2021	Anticonvulsants	1
62.	14.12.2021	Opioid Analgesics	1
63.	15.12.2021	Non-steroidal anti-inflammatory drugs	1
64.	16.12.2021	Analeptics and other CNS stimulants.	1
65.	17.12.2021	Local anaesthetics	1
66.	21.12.2021	Muscle relaxants	1
67.	22.12.2021	Euthanizing agents.	1
	UNIT 4	DRUGS ACTING ON DIFFERENT BODY SYSTEMS	1
68.	23.12.2021	Stomachics, Antacids and antiulcers,	1
SECOND INTERNAL ASSESSMENT EXAMINATION			
69.	24.12.2021	Prokinetics & carminatives,	1
(25.12.2021to 31.12.2021) SPORTS AND CULTURAL WEEK ACTIVITY			
70.	04.01.2022	Antizymotics, Emetics and Antiemetics	1
71.	05.01.2022	Purgatives	1
72.	06.01.2022	Antidiarrhoeals	1
73.	07.01.2022	Choleretics and Cholagogues.	1
74.	11.01.2022	Rumen pharmacology.	1
75.	12.01.2022	Cardiotonics and cardiac stimulants,	1
76.	13.01.2022	Antiarrhythmic drugs, Vasodilators and Antihypertensive agents	1
77.	18.01.2022	Drugs affecting renal function & fluid electrolyte balance	1
78.	19.01.2022	Drugs affecting renal function & fluid electrolyte balance	1
79.	20.01.2022	Haematopoietic drugs, Coagulants and anticoagulants	1
80.	21.01.2022	Expectorants and Antitussives	1
81.	25.01.2022	Respiratory stimulants	1
82.	27.01.2022	Bronchodilators and Mucolytics	1
83.	28.01.2022	Drugs acting on endocrine system -1	1
84.	01.02.2022	Drugs acting on endocrine system -2	1
	UNIT 5	VETERINARY CHEMOTHERAPY	1
85.	02.02.2022	Introduction and historical developments of chemotherapy	1
86.	03.02.2022	Classification of antimicrobial chemotherapy	1

87.	04.02.2022	General principles in antimicrobial chemotherapy	1
88.	08.02.2022	Antimicrobial resistance of chemotherapy	1
89.	09.02.2022	Sulphonamides and their combination with diaminopyrimidines	1
90.	10.02.2022	Penicillins and its classification	1
91.	11.02.2022	Cephalosporins its classification and clinical uses	1
92.	15.02.2022	Cephameycins and Beta lactamase inhibitors	1
93.	17.02.2022	Aminoglycosides and aminocyclitols,	1
94.	18.02.2022	Tetracyclines, Amphenicols (chloramphenicol, thiamphenicol, florfenicol)	1
95.	22.02.2022	Macrolides , Quinolones and fluoroquinolones	1
96.	23.02.2022	Polypeptides (polymixins, bacitracin), Glycopeptides antibiotics, Lincosamides, Novobiocin, virginiamycin	1
97.	24.02.2022	Tiamulin, nitrofurans and methenamine	1
98.	25.02.2022	Antifungal agents and classification, Topical and systemic agents including anti-fungal antibiotics	1
99.	02.03.2022	Anti-viral drugs	1
100.	03.03.2022	Anti-cancer agents	1
101.	04.03.2022	Anthelmintics: Drugs used against nematodes, cestodes, trematodes	1
102.	02.03.2022	Antiprotozoal agents Drugs used in trypanosomosis, theileriosis, babesiosis, Amoebiasis, giardiasis and trichomoniasis coccidiosis	1
103.	08.03.2022	Ectoparasiticides agent, Antiseptics and disinfectants	1
104.	09.03.2022	Drugs of abuse in animals	1
105.	10.03.2022	Pharmacology of indigenous medicinal plants	1
	UNIT 6	VETERINARY TOXICOLOGY	1
106.	11.03.2022	Introduction of general Toxicology: Definitions	1
107.	15.03.2022	history of toxicology	1
108.	22.03.2022	Fundamentals and scope of toxicology	1
109.	23.03.2022	Sources and classification of toxicants	1
110.	24.03.2022	factors modifying toxicity	1
111.	25.03.2022	general approaches to diagnosis and treatment of poisoning	1
112.	29.03.2022	Arsenic toxicity	1
113.	30.03.2022	Lead toxicity	1
114.	31.03.2022	Mercury toxicity	1
115.	01.04.2022	Copper toxicity	1
116.	05.04.2022	Molybdenum toxicity	1
117.	06.04.2022	selenium toxicity	1
118.	07.04.2022	phosphorus toxicity	1
119.	08.04.2022	Fluoride toxicity	1
120.	11.04.2022	Nitrates or nitrites toxicity	1
121.	12.04.2022	Chlorate toxicity	1
122.	19.04.2022	common salt and urea toxicity	1
123.	20.04.2022	Cyanogenetic plants, abrus, ipomoea, datura, nux vomica, castor -1	1
124.	21.04.2022	Cyanogenetic plants, abrus, ipomoea, datura, nux vomica, castor -2	1
125.	22.04.2022	Oxalate producing plants	1
126.	26.04.2022	Plants causing thiamine deficiency	1
THIRD INTERNAL ASSESSMENT EXAMINATION			
127.	27.04.2022	plants causing photosensitization and lathyrism, oleander,	1

		and cotton seed toxicity	
128.	28.04.2022	Chlorinated hydrocarbons toxicity	1
129.	29.04.2022	Organophosphates toxicity	1
130.	04.05.2022	Carbamates toxicity	1
131.	05.05.2022	Pyrethroids toxicity	1
132.	06.05.2022	newer insecticides	1
133.	10.05.2022	Herbicides, fungicides and rodenticides	1
134.	11.05.2022	Aflatoxins, rubratoxin, ochratoxin, sporidesmin	1
135.	12.05.2022	citrinin, F-2 toxin, trichothecenes toxicity	1
136.	13.05.2022	ergot, fescue, botulinum toxin and tetanus toxin.	1
137.	17.05.2022	Snake, scorpion, spider, bees and wasp, toad and fishes (puffer fish, shellfish)	1
138.	18.05.2022	Toxicity caused by food additives and preservatives	1
139.	19.05.2022	Environmental pollutants: Air and water pollutants	1
140.	20.05.2022	Concept of radiation hazards	1
ANNUAL EXAMINATION			

(Signature)
Head of Department

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Course Outline for Practical Classes (Session: 2021-22)
Tentative Lecture Schedule 3rd Year (MSVE-2016)

Course Title: Veterinary Pharmacology & Toxicology
Duration of Lecture Class: 23-08-2021 to 02.05.2022

Credit Hrs.4+1=5

S.N.	Date	Topic to be Covered	Hrs.
<i>General Veterinary Pharmacology and Toxicology</i>			
1.	23.08.2021	Pharmacy appliances	2
2.	06.09.2021	Principles of compounding and dispensing.	2
3.	13.09.2021	Metrology system of weights and measures,	2
4.	20.09.2021	Pharmacy calculations, Pharmaceutical processes, Pharmaceutical dosage forms	2
5.	27.09.2021	Prescription writing	2
6.	04.10.2021	Incompatibilities	2
7.	11.10.2021	Drug standards and regulations, custody of poisons	2
8.	18.10.2021	Compounding and dispensing of powders	2
9.	25.10.2021	Compounding and dispensing of Ointments and mixtures	2
10.	01.11.2021	Compounding and dispensing of liniments and lotions, liquors and tinctures	2
11.	08.11.2021	Compounding and dispensing of emulsions and electuaries	2
<i>Veterinary CNS & ANS Pharmacology</i>			
12.	15.11.2021	Gross Observable Effects of CNS Active Drugs, Autonomic Profiles	2
13.	22.11.2021	To Study The Gross Observable Effects of Diazepam	2
14.	29.11.2021	Pharmacological Evaluation of Specific Activities of Drugs	2
15.	06.12.2021	To Demonstrate The Effect of Drugs on Neuromuscular Coordination in Mice (Rota-Rod Test)	2
16.	13.12.2021	To Demonstrate The Effect of Drugs on Spontaneous Motor Activity in Mice Using Photoactometer	2
17.	20.12.2021	To Demonstrate The Effect of Drugs on Conditioned Avoidance Response (car) in Rats Using Cook's Pole Climbing Apparatus	2
18.	03.01.2022	To Demonstrate The Analgesic Effect of Drugs in Mice Using Hotplate or Tail-Flick Method	2
19.	10.01.2022	To Study The Anticonvulsant Effect of Drugs in Mice Using Electroshock or Chemoshock Methods	2
20.	17.01.2022	Assay of Acetylcholine & Assay of Histamine	2
21.	24.01.2022	Assay of Adrenaline and Noradrenaline	2
22.	31.01.2022	Frog Heart Perfusion & Assay of 5 th & pge ₂	2
<i>Veterinary Chemotherapy</i>			
23.	07.02.2022	To study antibiotics (cephalosporins) formulations used in	2

		veterinary practice.	
24.	14.02.2022	To study antifungal, antiviral, anthelmintic & antiprotozoal formulations used in veterinary practice.	2
25.	21.02.2022	To study ectoparasiticide formulations used in veterinary practice.	2
26.	28.02.2022	To study antiseptics and disinfectant formulations used in veterinary practice.	2
27.	07.03.2022	Demonstration of antibiotic sensitivity test.	2
28.	14.03.2022	To study common indigenous drugs of plant origin with proven pharmacological and therapeutic efficacies in various animal ailments.	2
<i>Veterinary Toxicology</i>			
29.	21.03.2022	Collection preservation and dispatch of material for toxicological analysis.	2
30.	28.03.2022	General principles for toxicological analysis.	2
31.	04.04.2022	Detection of heavy metals poisons (Lead, Arsenic, Antimony, Mercury, Copper, Zinc).	2
32.	11.04.2022	Detection of non-metal poisons (Fluoride, Nitrate, Nitrite).	2
33.	18.04.2022	Detection of plant poisons.	2
34.	25.04.2022	Demonstration of agrochemical toxicity and its antidotal therapy, Demonstration of toxic weeds and plants of local area.	2
35.	02.05.2022	Method of calculation of median lethal dose (LD ₅₀) or maximum tolerated dose (MTD).	2
ANNUAL EXAMINATION			

(Signature)
Head of Department