

DEPARTMENT OF VETERINARY MICROBIOLOGY
MJF COLLEGE OF VETERINARY & ANIMAL SCIENCE, CHOMU, JAIPUR
COURSE OUTLINE FOR THEORY
TEACHING PROGRAMME

Course No.: Unit 1 , 2 ,3 ,4 and 5

Course Title: General Veterinary Microbiology & Mycology **Credit Hrs:** 3+2=5

Duration of lecture Class: 6 August 2020 to 8 July 2021

Theory Lectures

Sr. No.	Date	Topics to be covered	Hrs.
1.	6/8/20	Introduction and History of Microbiology	1
2.	7/8/20	Morphology and structure of Bacteria, Growth nutrition of Bacteria and Bacterial growth curve	1
3.	8/8/20	Classification, Resistance, susceptibility of host nomenclature of Bacteria and Resistance.	1
4.	10/8/20	Class test	1
6	11/8/20	Aerobic, anaerobic, normal opportunistic, saprophytic bacteria micro flora	1
7	13/8/20	Types and source of infection	1
8	14/8/20	Pathogenicity, virulence, factors affecting virulence	1
9.	17/8/20	Epizootic and enzootic disease, bacteremia, septicaemia, toxemia, endotoxins and exotoxins	1
10	18/8/20	Bacterial Genetics, Plasmids and Antibiotic resistance	1
11	19/8/20	Class test	1
12	20/8/20 21/8/20	Morphology, isolation, growth and bacterial colony Biochemical antigenic characteristics, pathogenicity and diagnosis of Staphylococci	1
13	24/8/20	Streptococcus	1

14	25/8/20	Differentiation of Streptococcus	1
15	26/8/20	Corynebacterium	1
16	27/8/20	Class test	1
17	29/8/20	Rhodococcus	1
18.	31/8/20 1/9/20	Listeria	1
19.	2/9/20	Bacillus spp	1
20.	3/9/20	Class test	1
21.	4/9/20	Mycobacterium	1
22	5/9/20	Mycobacterium paratuberculosis	1
23.	7/9/20 8/9/20 9/9/20	Clostridium and its spp, Clostridium botulisim	1
24	10/9/20	Clostridium perfringes	1
25	11/9/20	Class test	1
26.	12/9/20	Enterobacteriaceae (E.coli	1
27.	18/9/20	Class test	1
28	19/10/20	Klebsiella, Salmonella, Yersinia, Proteus	1
29.	21/9/20	Class test	1
30	22/9/20 23/9/20	Actinomyces, Nocardia, Streptomyces	1

31	24/9/20	Dermatophilosis	1
32.	25/9/20 26/9/20	Streptomyces and Dermatophilosis	1
33.	28/9/20	Pseudomonas and Burkholderia	1
34	29/9//20	Pasteurella, Mannheimia	1
35	30/9/20	Class test	1
.36	1/10/20	Brucella	1
.37	3/10/20	Vibrio, Campylobacter	1
38	5/10/20	Bordetella and Moraxella	1
39	6/10/20	Class test	1
40	7/10/20 8/10/20	Leptospira and other Spirochaetes	1
41	9/10/20	Mycoplasma	1
42.	10/10/20 12/10/20	Coxiella Neorickettsia	1
43	13/10/20	Ehrlichia	1
44	14/10/20	Anaplasma	1
45	15/10/20	Class test	1
46.	17/10/20	Gram negative anaerobes: Bacteroides, Dichlobacteria and Fusobacterium	1
47.	19/10/20	Actinobacillus Haemophilus	1
48	20/10/20	Introduction, classification of fungi	1
49	21/10/20 22/10/20	General properties of fungi	1
.50	23/10/20	Growth and Reproduction of fungi	1

51	24/10/20 26/10/20	Diagnosis and control of fungal diseases	1
52	27/10/20	Candida	1
53	28/10/20	Class test	1
54	29/10/20	Cryptococcus, Aspergillus	1
55	31/10/20 2/11/20	Penicillium, Dermatophytes	1
56	3/11/20	Class test	1
57	4/11/20	Malassezia	1
58	5/11/20	Dimorphic fungi	1
59	6/11/20	Class test	1
60	7/11/20 9/11/20	Rhinosporidium and Sporotrichum	1
61	10/11/20	Mycetoma and Zygomycetes	1
62	18/11/20 19/11/20 20/11/20	Mycotoxicoses	1
63	21/11/20	Mycotic abortion	1
64.	23/11/20	Mycotic mastitis	1
65	24/11/20	Rickettsia, Chlamydia and	1
66	25/11/20	Class test	1
.67	26/11/20	Chlamydomphila	1
68.	27/11/20	History of Virology; Introduction to viruses	1
69.	28/11/20	Structure of Viruses	1
70	1/12/20		1

71	2/12/20	Polymerase chain reaction	1
72	3/12/20	Hybridization technique	1
73	4/12/20	Studies on General Properties, Antigens, Cultivation	1
74	5/12/20	Class test	1
75	7/12/20	Basic concepts and scope of Recombinant DNA	1
76	8/12/20	Studies on General Pathogenesis of virus	1
.77	9/12/20	Gene cloning, Cloning vectors	1
78	10/12/20	Expression vectors	1
79	11/12/20	Transformation and transfection	1
80	12/12/20	Southern, Northern blotting	1
81	14/12/20	Western blotting	1
82	15/12/20	Sequencing	1
83	16/12/20	DNA fingerprinting	1
84.	17/12/20	IPR, Ethics and regulatory issues in Animal Biotechnology	1
85.	18/12/20	Class test	1
86	19/12/20	Oncogenesis, latency and immunopathology	1
87	21/12/20	Viral Replication	1

88	22/12/20	Viral Replication	1
89	23/12/20	Classification of Viruses	1 1
90	24/12/20	Genetic and non genetic Virus-Cell Interactions,	1
91	26/12/20	Viral Pathogenesis	1
92	26/12/20 27/12/20	Virus cultivation methods and importance	1 1
93	28/12/20	Dna and rna virus differentiation	1
94	29/12/20	Class test	1
95	30/12/20	Replication of rna and dna virus along with difference in their replication mechanisim	1
. 96	31/12/20	Brief classification of dna and rna virus	1
97	1/1/21	Herpesviridae	1
98	2/1/21 4/1/21	Bovine herpes viruses, Equine Herpes viruses	1
99	5/1/21 6/1/21	Marek's disease virus	1
99	7/1/21	Class test	1
100	8/1/21	Malignant Catarrhal Fever virus	1
101	9/1/21	Duck Plague virus	1
102	11/1/21 12/1/21	Infectious Canine Hepatitis virus	1
103	13/1/21	Class test	1
104	15/1/21	Pseudorabies virus	1

105	16/1/21	Egg Drop Syndrome virus	1
106	18/1/21	Chicken Anemia Virus	1
107	19/1/21	Papillomatosis	1
108	21/1/21 22/1/21	Canine parvoviruses	1
109	23/1/21	Infectious laryngotracheitis virus	1
110	2/1/21	Feline panleucopenia virus	1
111	27/1/21	Class test	1
112	28/1/21 29/1/21	Infectious bursal disease virus	1
113	30/1/21 1/2/21	Rotaviruses	1
114	2/2/21	Bluetongue virus	1
115	3/2/21	African horse sickness virus	1
116	4/2/21		1
117	5/2/21 6/2/21	Avian Influenza Viruses	1
118	8/2/21	Class test	1
119	9/2/21	Infectious Bronchitis	1
120	10/2/21 11/2/21 12/2/21	Canine distemper virus,	1
121		Borna virus	1
122	13/2/21 15/2/21	Newcastle disease virus	1
123	16/2/21	Class test	1
124	17/2/21 18/2/21 19/2/21	Coronaviridae virus	1
125	20/2/21	Equine viral arteritis virus	1
126	22/2/21	Transmissible gastroenteritis virus	1
127	23/2/21	Ephemeral fever virus	1

128	24/2/21	Class test	1
129	25/2/21	Duck viral hepatitis virus	1
130	26/2/21 27/2/21 6/3/21	RP	1
131	8/3/21	Equine encephalomyelitis	1
132	9/3/21	Class test	1
133	10/3/21	Feline calici Virus	1
134	12/3/21 13/3/21 15/3/21	PPR virus	1
135	16/3/21 17/3 21/ 18/3/21	FMD virus	1
136	19/ 3/21	Swine fever virus	1
137	20/3/21	Visna or maedi virus	1
138	22/3/21	BVD virus	1
139	23/3/21	Class test	1
140	24/3/21 25/3/21	Flaviviridae virus	1
141	26/3/21 27/3/21	Equine infectious anemia virus	1
142	30/3/21 31/3/21 25/3/21	Poxviridae	1
143	26/3/21 27/3/21	Capripoxvirus	1
144	30/3/21	Class test	1
145	31/3/21 1/4/21	Cowpoxvirus	1
146	3/4/21	Bovine leukemia virus	1
147	5/3/21	Lymphoid leucosis virus	1
148	6/4/21	Class test	1

149	7/4/21 8/4/21	Avipoxvirus	1
150	9/4/21 10/4/21	History of Immunology,Lymphoid organs, tissues and Cells	1
151	12/4/21 15/4/21	Adjuvants; Antibody	1
152	16/4/21	heterophile Antigens	1
153	17/4/21	Class test	1
154	19/4/21 20/4/21	Asfarviridae	1
155	22/4/21 23/4/21	Mitogens and factors affecting immunogenicity	1
156	24/4/21 26/4/21 27/4/21	African Swine Fever Virus	1
157	28/4/21	T dependent and T independent Antigens	1
158	29/4/21	Class test	1
159	30/4/21	Theories of antibody production	1
160	1/5/21 8/5/21	cross reacting Antigens, blood group Antigens ,	1
161	10/5/21	Class test	1
162	11/5/21 12/5/21 13/5/21	Major histocompatibility complex (MHC) structure, function and gene organization	1
163	15/5/21 17/5/21 18/5/21	Rabies virus	1
164	19/5/21 20/5/21 21/5/21	Types of Immunity; Antigens, haptens, epitopes, Specificity	1
165	22/5/21 24/5/21	Structure, physiochemical properties and functions of various classes of immunoglobulins	1
166	25/5/21 26/5/21	Structure of BCR and TCR	1

167	27/5/21	Antigen processing and presentation	1
168	28/5/21 29/5/21 31/5/21	Complement system: activation pathways and biological consequences	1
169	8/6/21	Class test	1
170	9/6/21 10/6/21 11/6/21	Hybridoma and monoclonal antibodies	1

171	12/6/21 14/6/21	Cytokines: general properties, major types and function	1
172	15/6/21 16/6/21 17/6/21	Hypersensitivity: classification and mechanism of induction	1
173	18/6/21	Vaccines	1
174	19/6/21 21/6/21 22/6/21	Autoimmunity; Immunotolerance; Concept of Immunity	1
175	23/6/21 24/6/21	Prions: Scrapie	1
176	25/6/21	Bovine Spongiform Encephalopathy	1
177	26/6/21 28/6/21 29/6/21	Emerging, re-emerging and transboundary viruses and Viral Infections	1
178	30/6/21	Class test	1
179	1/7/21	Revision of unit 1 –gram positive bacteria eg staphylococcus, streptococcus spp, bacillus mycobacterium	1
180	2/7/21	Revision of unit 1 gram positive disease affecting different spp	1
181	3/7/21	Revision of unit 1 gram negative bacteria affect different spp of animals	1
182	5/7/21	Revision of unit 2 pathogenesis of different rickettsial disease	1
183	6/7/21	Revision of unit 2 pathogenesis of different fungal disease	1

178	7/7/21	Revision of unit 3 bitotechnolical tools and technique	1
178	8/7/21	Revision of unit 4 general and systemic biotechnology	1
171	12/6/21 14/6/21	Cytokines: general properties, major types and function	1
172	15/6/21 16/6/21 17/6/21	Hypersensitivity: classification and mechanism of induction	1
173	18/6/21	Vaccines	1
174	19/6/21 21/6/21 22/6/21	Autoimmunity; Immunotolerance; Concept of Immunity	1
175	23/6/21 24/6/21	Prions: Scrapie	1
176	25/6/21	Bovine Spongiform Encephalopathy	1
177	26/6/21 28/6/21 29/6/21	Emerging, re-emerging and transboundry viruses and Viral Infections	1
178	30/6/21	Class test	1
179	1/7/21	Revision of unit 1 –gram positive bacteria eg staphylococcus,streptococcus spp,bacillus mycobacterium	1
180	2/7/21	Revision of unit 1 gram positive disease affecting different spp	1
181	3/7/21	Revision of unit 1 gram negative bacteria affect different spp of animals	1
182	5/7/21	Revision of unit 2 pathogenesis of different ricketisial disease	1

183	6/7/21	Revision of unit 2 pathogenesis of different fungal disease	1
178	7/7/21	Revision of unit 3 bitotechnological tools and technique	1
178	8/7/21	Revision of unit 4 general and systemic biotechnology	1

Signature of Head of Department