

Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Veterinary Parasitology
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	VPA 605	Immunology of Parasitic diseases	1+2 = 3	Compulsory
2.	VPA 606	Molecular Diagnostics and Vaccine Development in Parasitology	2+1 = 3	Compulsory
		Total	3+3 = 6	Compulsory
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
2.	VPA 601	Advances in Helminthology-I	2+1 = 3	Optional
3.	VPA 602	Advances in Helminthology-II	2+1 = 3	Optional
4.	VPA 603	Entomology and Acarology	2+1 = 3	Optional
5.	VPA 604	Advances in Protozoology	2+1 = 3	Optional
6.	VPA 607	Host Parasite Interactions	2+0 = 2	Optional
7.	VPA 608	In-vitro cultivation of Parasites	1+2 = 3	Optional
8.	VPA 609	Emerging & Re-emerging Parasitic Diseases	2+0 = 2	Optional
9.	VPA 610	Biology and Ecology of Parasites	3+0 = 3	Optional
10.	VPA 611	Molecular Veterinary Parasitology	2+0 = 2	Optional
11.	VPA 690	Special Problem	0+1 = 1	Optional
		Total	1+1 = 2	Compulsory
Semester – III				
1.	VPA 612	Parasite Epidemiology	2+0 = 2	Compulsory
2.	VPA 691	Doctoral Seminar-I	1+0 = 1	Compulsory
3.	VPA 692	Doctoral Seminar-II	1+0 = 1	Compulsory
		Total	4+0 = 4	Compulsory
Semester – IV				
1.	VPA 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	VPA 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	VPA 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	VPA 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VIII				
1.	VPA 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory

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 21/5/23



Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Animal Nutrition
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	ANN 701	Modern Concepts in Feeding of Ruminants	2+0 = 2	Compulsory
2.	ANN 702	Forages in Animal Nutrition	1+0 = 1	Compulsory
3.	ANN 703	Recent Concepts in Feeding of Non-Ruminants	1+0 = 1	Compulsory
4.	ANN 704	Advances in Rumen Metabolism	1+1 = 2	Compulsory
		Total	5+1 = 6	Compulsory
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
2.	ANN 705	Advances in Mineral and Vitamin Nutrition	2+0 = 2	Compulsory
3.	ANN 706	Advanced Clinical Nutrition	1+1 = 2	Compulsory
4.	ANN 707	Advanced Techniques in Nutritional Research	1+1 = 2	Optional
5.	ANN 708	Advances in Feed Technology	1+0 = 1	Optional
6.	ANN 709	Toxicants and Anti-Metabolites in Animal Nutrition	1+0 = 1	Optional
7.	ANN 710	Nutrigenomics in Animal Nutrition	1+0 = 1	Optional
8.	ANN 711	Equine Nutrition	1+0 = 1	Optional
		Total	4+2 = 6	Compulsory
Semester – III				
1.	ANN 791	Doctoral Seminar-I	1+0 = 1	Compulsory
2.	ANN 792	Doctoral Seminar-II	1+0 = 1	Compulsory
		Total	2+0 = 2	Compulsory
Semester – IV				
1.	ANN 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	ANN 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	ANN 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	ANN 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VIII				
1.	ANN 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory



Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Livestock Production and Management
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	LPM 701	Recent Developments in Large Ruminants Production Management	2+1 = 3	Compulsory
		Total	2+1 = 3	Compulsory
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
	LPM 702	Recent Developments in Small Ruminants Production Management	2+1 = 3	Compulsory
2.	LPM 703	Recent Developments in Swine Production Management	1+1 = 2	Compulsory
		Total	4+3 = 7	Compulsory
Semester – III				
1.	LPM 704	Livestock and Environment	1+0 = 1	Compulsory
2.	LPM 705	Organic Livestock Production	1+0 = 1	Compulsory
3.	LPM 791	Doctoral Seminar-I	1+0 = 1	Compulsory
4.	LPM 792	Doctoral Seminar-II	1+0 = 1	Compulsory
5.	LPM 706	Recent Developments in Welfare of Farm Animals	1+0 = 1	Optional
6.	LPM 707	Entrepreneurship in Livestock Production	1+1 = 2	Optional
7.	LPM 708	Precision Livestock Farming	1+1 = 2	Optional
8.	LPM 709	Recent Developments in Poultry Production Management	2+1 = 3	Optional
		Total	4+0 = 4	Compulsory
Semester – IV				
1.	LPM 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	LPM 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	LPM 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	LPM 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VIII				
1.	LPM 799	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory



Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Animal Reproduction, Gynaecology and Obstetrics
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	VGO 601	Advances in Gynaecology and Infertility Management	2+1 = 3	Compulsory
2.	VGO 606	Clinical Practice-I	0+3 = 3	Compulsory
		Total	2+4 = 6	Compulsory
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
2.	VGO 603	Advances in Andrology and Male Infertility	2+1 = 3	Compulsory
3.	VGO 607	Clinical Practice-II	0+3 = 3	Compulsory
		Total	3+5 = 8	Compulsory
Semester – III				
1.	VGO 691	Doctoral Seminar-I	1+0 = 1	Compulsory
2.	VGO 692	Doctoral Seminar-II	1+0 = 1	Compulsory
		Total	2+0 = 2	Compulsory
Semester – IV				
1.	VGO 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	VGO 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	VGO 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	VGO 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VIII				
1.	VGO 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory



Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Veterinary Surgery and Radiology
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	VSR 601	Clinical Practice - I	0 + 2 = 2	Compulsory
2.	VSR 605	Advances in Anaesthesiology	2 + 1 = 3	Optional
3.	VSR 607	Advances in Diagnostic Imaging Techniques	2 + 1 = 3	Optional
		Total	0 + 2 = 2	Compulsory
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
2.	VSR 602	Clinical Practice - II	0 + 2 = 2	Compulsory
3.	VSR 608	Advances in Orthopaedics	2 + 1 = 3	Optional
4.	VSR 689	Special Problem in Anaesthesia	0 + 2 = 2	Optional
		Total	1 + 3 = 4	Compulsory
Semester – III				
1.	VSR 603	Clinical Practice - III	0 + 2 = 2	Compulsory
	VSR 687	Clinical Case Conference	0 + 1 = 1	Compulsory
2.	VSR 691	Doctoral Seminar -I	2 + 0 = 2	Compulsory
3.	VSR 692	Doctoral Seminar -II	2 + 0 = 2	Optional
4.	VSR 612	Advances in Ophthalmology	1 + 1 = 2	Optional
5.	VSR 613	Surgical Oncology	1 + 1 = 2	Optional
		Total	2 + 3 = 5	Compulsory
Semester – IV				
1.	VSR 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	VSR 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	VSR 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	VSR 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
1.	VSR 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory



Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Veterinary Medicine
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	VMD 616	Clinical Practice-I	0+2 = 2	Compulsory
2.	VMD 601	Farm Animal Gastroenterology	2+0 = 2	Optional
3.	VMD 605	Herd Health Management	2+1 = 3	Optional
4.	VMD 606	Canine and Feline Gastroenterology	2+0 = 2	Optional
5.	VMD 609	Dermatology and Endocrinology	1+0 = 1	Optional
6.	VMD 614	Emerging and Re-emerging Animal Diseases	2+0 = 2	Optional
		Total	0+2 = 2	
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
2.	VMD 617	Clinical Practice-II	0+2 = 2	Compulsory
3.	VMD 602	Farm Animal Cardiopulmonary and Urinary System Diseases	2+0 = 2	Optional
4.	VMD 603	Farm Animal Neurological and Musculo-skeletal System Diseases	1+0 = 1	Optional
5.	VMD 604	Farm Animal Neonatology	1+0 = 1	Optional
6.	VMD 607	Advances in Neurological and Musculoskeletal System	1+0 = 1	Optional
7.	VMD 608	Canine and Feline Cardiopulmonary and Urinary System Diseases	1+0 = 1	Optional
		Total	1+3 = 4	
Semester – III				
1.	VMD 618	Clinical Practice-III	0+2 = 2	Compulsory
2.	VMD 691	Doctoral Seminar -I	1 + 0 = 1	Compulsory
3.	VMD 692	Doctoral Seminar -II	1 + 0 = 1	Compulsory
4.	VMD 611	Veterinary Diagnostics	0+2 = 2	Optional
5.	VMD 613	Emergency and Critical Care Medicine	1+1 = 2	Optional
6.	VMD 615	Prevention and Control of Infectious Diseases of Ruminants	2+0 = 2	Optional
		Total	2+2 = 4	
Semester – IV				
1.	VMD 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	VMD 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	VMD 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	VMD 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VIII				
1.	VMD 699	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory



Maharashtra Animal and Fishery Sciences University, Nagpur
Department of Veterinary Biotechnology
Ph.D. Semester-wise Course Programme (In-service)

Sr. No	Course No.	Title of the course	Credits	Compulsory/ Optional
Semester – I				
1.	BTY 701	Genetic Engineering	1+2 = 3	Compulsory
2.	BTY 709	Advances in Animal Cell Culture	2+1 = 3	Compulsory
		Total	3+3 = 6	Compulsory
Semester – II				
1.	RPE 700	Research and Publication Ethics	1+1 = 2	Compulsory
2.	BTY 702	Functional Genomics and Proteomics	3+0 = 3	Optional
3.	BTY 703	Advances in Cell and Molecular Biology	2+0 = 2	Optional
4.	BTY 704	Diagnostic Platform	1+1 = 2	Optional
5.	BTY 706	Trends in Vaccinology	2+1 = 3	Optional
6.	BTY 707	Advances in Bioinformatics	1+1 = 2	Optional
		Total	1+1 = 2	Compulsory
Semester – III				
1.	BTY 712	Doctoral Seminar -I	1+0 = 1	Compulsory
2.	BTY 713	Doctoral Seminar -II	1+0 = 1	Compulsory
3.	BTY 705	Gene Manipulation and Genome Editing	2+0 = 2	Optional
4.	BTY 708	Advances in Reproductive Biotechnology	2+1 = 3	Optional
5.	BTY 710	Industrial Biotechnology	2+1 = 3	Optional
6.	BTY 711	Rumen and Feed Biotechnology	2+1 = 3	Optional
		Total	2 + 0 = 2	Compulsory
Semester – IV				
1.	BTY 714	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – V				
1.	BTY 714	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VI				
1.	BTY 714	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VII				
1.	BTY 714	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory
Semester – VIII				
1.	BTY 714	Doctoral Research	0+15 = 15	Compulsory
		Total	0+15 = 15	Compulsory

