

1. Animal Genetics and Breeding

M.V.Sc. / M.Sc. Ag. (Animal Genetics and Breeding)

Core Courses (14 credits)

AGB-602	Molecular Genetics in Animal Breeding	3(2-0-1)
AGB-603	Population and Quantitative Genetics in Animal Breeding	3(2-0-1)
AGB-604	Selection Methods and Breeding Systems	4(3-0-1)
AGB-611	Animal Cytogenetics and Immunogenetics	3(2-0-1)
AGB-600	Master's Seminar	1
	Sub Total	14

Basic Supporting Courses (6 credits)

BMB-545	Techniques in Molecular Biology	2(0-0-2)
BPS-661	Experimental Statistics	4(3-0-1)
	Sub Total	6

Optional/ Minor Courses (10 credits)

Thesis Research (20 credits)

AGB-690	Master's Thesis Research	20
	Total	50

Ph.D. Animal Genetics and Breeding

Core Courses (12 credits)

AGB-701	Recent Advances in Animal Genetics	2(2-0-0)
AGB-702	Recent Trends in Animal Breeding	2(2-0-0)
AGB-703	Advances in Biometrical Genetics	3(2-0-1)
AGB-704	Advances in Selection Methodology	3(2-0-1)
AGB-788	Doctoral Seminar-I	1
AGB-789	Doctoral Seminar-II	1
	Sub Total	12

Basic Supporting Courses (3 credits)

BPS-662	Advanced Experimental Design	3(2-0-1)
	Sub Total	3

Optional Courses (5 credits)

Minor Courses (10 credits)

Thesis Research (45 credits)

AGB-790	Ph.D. Thesis Research	45
	Total	75

Compulsory Courses for minor for other disciplines

AGB-603	Population and Quantitative Genetics in Animal Breeding	3(2-0-1)
AGB-604	Selection Methods and Breeding Systems	4(3-0-1)

List of Post Graduate Courses of the Department

AGB-600	Master's Seminar	1
AGB-601	Special Problems	1-2
AGB-602	Molecular Genetics in Animal Breeding	3(2-0-1)
AGB-603	Population and Quantitative Genetics in Animal Breeding	3(2-0-1)
AGB-604	Selection Methods and Breeding Systems	4(3-0-1)
AGB-605	Biometrical Techniques in Animal Breeding	4(3-0-1)
AGB-606	Conservation of Animal Genetic Resources	2(2-0-0)
AGB-607	Cattle and Buffalo Breeding	3(2-0-1)

AGB-608	Small Farm Animal Breeding (Sheep, Goat, Swine and Rabbit)	2(2-0-0)
AGB-609	Poultry Breeding	3(2-0-1)
AGB-610	Laboratory Animal Breeding	1(1-0-0)
AGB-611	Animal Cytogenetics and Immunogenetics	3(2-0-1)
AGB-690	Master's Thesis Research	20
AGB-701	Recent Advances in Animal Genetics	2(2-0-0)
AGB-702	Recent Trends in Animal Breeding	2(2-0-0)
AGB-703	Advances in Biometrical Genetics	3(2-0-1)
AGB-704	Advances in Selection Methodology	3(2-0-1)
AGB-705	Bioinformatics in Animal Genetics and Breeding	2(2-0-0)
AGB-706	Advances in Molecular Cytogenetics	2(2-0-0)
AGB-707	Utilization of Non-Additive Genetic Variance in Farm Animals	3(2-0-1)
AGB-788	Doctoral Seminar-I	1
AGB-789	Doctoral Seminar-II	1
AGB-790	Ph.D. Thesis Research	45

2. Animal Nutrition

M.V.Sc./ M.Sc. Ag. Animal Nutrition

Core Courses (15 credits)

ANN-603	Feed Technology	2(1-0-1)
ANN-605	Ruminant Nutrition	3(2-0-1)
ANN-606	Non-Ruminant Nutrition	2(1-0-1)
ANN-611	Energy and Protein in Animal Nutrition	3(3-0-0)
ANN-612	Minerals, Vitamins and Feed Additives in Animal Nutrition	4(3-0-1)
ANN-600	Master's Seminar	1
	Sub Total	15

Basic Supporting Courses (6 credits)

BPS-661	Experimental Statistics	4(3-0-1)
VBC-602	Techniques in Biochemistry	2(0-0-2)
	Sub Total	6

Optional/ Minor Courses (9 credits)

Thesis Research (20 credits)

ANN-690	Master's Thesis Research	20
	Total	50

Ph.D. Animal Nutrition (for both M. V. Sc. and M. Sc Ag degree in Animal Nutrition)

Core Courses (12 credits)

ANN-701	Modern Concepts of Feeding Ruminants and Forage Utilization	3(3-0-0)
ANN-702	Modern Concepts of Feeding Simple Stomached Animals	2(2-0-0)
ANN-703	Nutrition and Rumen Biotechnology	2(1-0-1)
ANN-704	Advances in Micronutrients	1(1-0-0)
ANN-707	Clinical Nutrition	2(1-0-1)
ANN-788	Doctoral Seminar-I	1
ANN-789	Doctoral Seminar-II	1
	Sub Total	12

Basic Supporting Courses (3 credits)

BPS-662	Advanced Experimental Design	3(2-0-1)
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Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

ANN-790	Ph.D. Thesis Research	45
	Total	75

Compulsory Courses for the minor of Ph. D. for other disciplines

ANN -701	Modern Concepts of Feeding Ruminants and Forage Utilization	3(3-0-0)
ANN -702	Modern Concepts of Feeding Simple Stomached Animals	2(2-0-0)

List of Post Graduate Courses of the Department

ANN-600	Master's Seminar	1
ANN-603	Feed Technology	2(1-0-1)
ANN-604	Feed Conservation, Storage and Quality Control	4(2-0-2)
ANN-605	Ruminant Nutrition	3(2-0-1)
ANN-606	Non-Ruminant Nutrition	2(1-0-1)
ANN-607	Nutrition of Companion, Laboratory, Wild and Zoo Animals	3(2-0-1)
ANN-608	Research Techniques in Animal Nutrition	4(1-0-3)
ANN-609	Non-Conventional Feedstuffs and Toxic Constituents/ Antimetabolites in Animal Feedstuffs	3(2-0-1)
ANN-611	Energy and Protein in Animal Nutrition	3(3-0-0)
ANN-612	Minerals, Vitamins and Feed Additives in Animal Nutrition	4(3-0-1)
ANN-690	Master's Thesis Research	20
ANN-701	Modern Concepts of Feeding Ruminants and Forage Utilization	3(3-0-0)
ANN-702	Modern Concepts of Feeding Simple Stomached Animals	2(2-0-0)
ANN-703	Nutrition and Rumen Biotechnology	2(1-0-1)
ANN-704	Advances in Micronutrients	1(1-0-0)
ANN-705	Advanced Techniques in Nutrition Research	3(1-0-2)
ANN-706	Advances in Feed Technology	2(1-0-1)
ANN-707	Clinical Nutrition	2(1-0-1)
ANN-708	Nutrients and drug interaction	2(2-0-0)
ANN-709	New Feed Resources and Toxicants in Animal Feeds	2(2-0-0)
ANN-788	Doctoral Seminar-I	1
ANN-789	Doctoral Seminar-II	1
ANN-790	Ph.D. Thesis Research	45

3. Livestock Production Management

M.V.Sc. (Livestock Production & Management)

Core Courses (15 credits)

LPM-614	Cattle and buffalo production and management	3(2-0-1)
LPM-602	Sheep and goat production and management	3(2-0-1)
LPM-603	Swine production and management	2(1-0-1)
LPM-605	Shelter management	2(1-0-1)
LPM-611	Equine production and management	2(1-0-1)
LPM-613	Livestock business management	2(1-0-1)
LPM-600	Master's Seminar	1
	Sub Total	15

Basic Supporting Courses (6 credits)

BPS-561	Statistical Methods	3(2-0-1)
AGB-607	Cattle and Buffalo Breeding	3(2-0-1)
	Sub Total	6

Optional / Minor Courses (9 credits)

Thesis Research (20 credits)

LPM -690	Master's Thesis Research	20
	Total	50

Ph.D. (Livestock Production & Management)

Core Courses (11 credits)

LPM-701	Advances in cattle and buffalo production and management	3(3-0-0)
LPM-702	Advances in sheep and goat production and management	3(2-0-1)
LPM-703	Advances in swine production and management	3(2-0-1)
LPM-788	Doctoral Seminar-I	1
LPM-789	Doctoral Seminar-II	1
	Sub total	11

Basic Supporting Courses (4 credits)

BPS -606	Computer application in biometrics	2(0-0-2)
AGB-702	Recent Trends in Animal Breeding	2(1-0-1)
	Sub Total	4

Optional Courses (5 credits)

Minor Courses (10 credits)

Thesis Research (45 credits)

LPM -790	Ph.D. Thesis Research	45
	Total	75

M.V.Sc. Poultry Science

Core Courses (13 credits)

LPM-633	Commercial layer production	3(2-0-1)
LPM-634	Commercial broiler production	3(2-0-1)
LPM-635	Breeder stock, flock health and hatchery management	4(3-0-1)
LPM-636	Management of poultry (other than chicken)	3(2-0-1)
LPM-600	Master seminar	1(0-0-1)
LPM-613	Livestock Business Management	2(1-0-1)

Sub Total **16**

Basic Supporting Courses (5 credits)

VLT-604	Egg and Egg Production Technology	2(1-0-1)
BPS-561	Statistical Method	3(2-0-1)

Sub Total **5**

Optional /Minor Courses (10 credits)

9

Thesis Research (20 credits)

LPM -690	Master's Thesis Research	20
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Total **50**

Ph.D. Poultry Science

Core Courses (11 credits)

LPM-732	Concept of commercial poultry production	3(2-0-1)
LPM-733	Development in poultry product technology	3(2-0-1)
LPM-735	Advances Poultry Breeding Method	3(2-0-1)
LPM-788	Doctoral Seminar – I	1(0-0-1)
LPM-789	Doctoral Seminar – II	1(0-0-1)

Sub Total **11**

Basic Supporting Courses (4 credits)

BPM-606	Computer Application in Biometrics	2(0-0-2)
VLT-605	Abattoir and Poultry processing plant practices	2(1-0-1)

Sub Total **4**

Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

LPM -790	Ph.D. Thesis Research	45
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Total **75**

List of Post Graduate Courses of the Department

LPM 600	Masters Seminar	1
LPM 601	Special Problem	1-2
LPM 602	Sheep and goat production and management	3(2-0-1)
LPM 603	Swine production and management	2(1-0-1)
LPM 604	Laboratory animal production and management	1(0-0-1)
LPM 605	Shelter management	2(1-0-1)
LPM 606	Principles of environmental hygiene and waste management	2(2-0-0)
LPM 607	Climatology and animal production and management	1(1-0-0)
LPM 608	Poultry farm and hatchery management	3(2-0-1)
LPM 609	Farm animal behaviour	1(1-0-0)
LPM 610	Integrated livestock farming system	3(2-0-1)
LPM 611	Equine production and management	2(1-0-1)
LPM 612	Wild life management and conservation	2(2-0-0)
LPM 613	Livestock Business management	2(1-0-1)
LPM 614	Cattle and buffalo production and management	3(2-0-1)
LPM 631	Poultry breeding and genetics	3(2-0-1)
LPM 632	Poultry nutrition and feeding	3(2-0-1)
LPM 633	Commercial layer production	3(2-0-1)
LPM 634	Commercial broiler production	3(2-0-1)
LPM 635	Breeder stock, flock health and hatchery management	3(2-0-1)
LPM 636	Management of poultry (other than chicken)	3(2-0-1)
LPM 637	Poultry products technology and marketing	3(2-0-1)
LPM 638	Poultry economics, projects and marketing	3(2-0-1)
LPM 639	Physiology of poultry production	3(2-0-1)
LPM 690	Master's Thesis Research	20
LPM 701	Advances in cattle and buffalo production and management	3(3-0-0)
LPM 702	Advances in sheep and goat production and management	3(2-0-1)
LPM 703	Advances in swine production and management	3(2-0-1)
LPM 704	Advances in laboratory animal production and management	1(1-0-0)
LPM 705	Advances in poultry production management	3(2-0-1)
LPM 706	Advances in environmental management	2(1-0-1)
LPM 707	Advances in Equine management	2(2-0-0)
LPM 721	Recent advances in hatchery management	2(1-0-1)
LPM 722	Recent advances in brooding management	2(1-0-1)
LPM 731	Applied poultry nutrition	3(2-0-1)
LPM 732	Concept in commercial poultry production	3(2-0-1)
LPM 733	Development in poultry product technology	3(2-0-1)
LPM 734	Emerging diseases of poultry and flock health	3(2-0-1)
LPM 735	Advanced poultry breeding methods	3(2-0-1)
LPM 736	Poultry economics, marketing and integration	3(2-0-1)
LPM 788	Doctoral Seminar-I	1
LPM 789	Doctoral Seminar-II	1
LPM 790	Ph.D. Thesis Research	45

4. Livestock Products Technology
M.V.Sc. (Livestock Products Technology)

Core courses (15 credits)

LPT 602	Meat Processing, Packaging, Quality Control and Marketing	3(2-0-1)
LPT 603	Poultry and Fish Products Technology	2(1-0-1)
LPT-604	Egg and Egg Products Technology	2(1-0-1)
LPT 605	Abattoir and Poultry Processing Plant Practices	2(1-0-1)
LPT 608	Market Milk Processing and Dairy Plant Practices	3(2-0-1)
LPT-613	Fresh Meat Technology	2(1-0-1)
LPT 600	Master's Seminar	1
	Sub total	15

Basic Supporting Courses(6 credits)

BPS 561	Statistical Methods	3(2-0-1)
AFS 511	Principles of Food Processing	3(2-0-1)
	Sub total	6

Optional/ Minor Courses (9 credits)

		9
	Thesis Research (20 Credit)	
LPT 690	Master's Thesis Research	20

TOTAL 50

Compulsory Courses for minor for other disciplines

LPT 602	Meat Processing, Packaging, Quality Control and Marketing	3(2-0-1)
LPT 608	Market Milk Processing and Dairy Plant Practices	3(2-0-1)

List of Post Graduate Courses of the Department

LPT 600	Master's Seminar	1
LPT 601	Special Problem	1
LPT 602	Meat Processing, Packaging, Quality Control and Marketing	3(2-0-1)
LPT 603	Poultry and Fish Products Technology	2(1-0-1)
LPT 604	Egg and Egg Products Technology	2(1-0-1)
LPT 605	Abattoir and Poultry Processing Plant Practices	2(1-0-1)
LPT 606	Slaughter House By-Products Technology	2(1-0-1)
LPT 607	Processing and Marketing of Wool	2(1-0-1)
LPT 608	Market Milk Processing and Dairy Plant Practices	3(2-0-1)
LPT 609	Quality Control of Milk and Milk Products	2(1-0-1)
LPT 610	Technology of Milk Products	2(1-0-1)
LPT 611	Biotechnology of Foods of Animal Origin	2(1-0-1)
LPT 613	Fresh Meat Technology	2(1-0-1)
LPT 690	Master's Thesis Research	20

5. Veterinary Anatomy

M.V.Sc. (Veterinary Anatomy)

Core Courses (18 credits)

VAN 603	Mycology, Angiology, Neurology and Asthesiology of Ox	4(1-0-3)
VAN 604	Gross Anatomical Techniques	2(0-0-2)
VAN 605	Theory and Practice of Histological and Histochemical Techniques	3(1-0-2)
VAN 607	Systemic Histology and Ultra Structure	4(3-0-1)
VAN608	Developmental Anatomy	4(3-0-1)
VAN 600	Master's Seminar	1(1-0-0)

Sub Total 18

Basic Supporting Courses (3 credits)

VPY 602	Cardiovascular and Respiratory Physiology	3(2-0-1)
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9

Optional/ Minor Courses (9 credits)

Any 600 series courses from either Veterinary Anatomy & Histology (in case minor is not opted), Veterinary Physiology, Veterinary Pathology, Veterinary Biochemistry, Veterinary Surgery and Radiology, Animal Biotechnology

Thesis Research (20 credits)

VAN-690	Master's Thesis Research	20
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Total 50

Ph.D. (Veterinary Anatomy)

Core Courses (14 credits)

VAN 704	Neuroanatomy	4(3-0-1)
VAN 705	Endocrine Anatomy	3(2-0-1)
VAN 706	Theory and Applications of Electron Microscope	3(2-0-1)
VAN 709	Functional Veterinary Anatomy	2(2-0-0)
VAN 788	Doctoral Seminar-I	1
VAN 789	Doctoral Seminar-II	1

Sub Total 14

Basic Supporting Courses (3 credits)

VPY 710	Advances in Immunophysiology	3(2-0-1)
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3

Optional Courses (3 credits)

Minor Courses (10 credits)

10

Any 600 or above series courses from Veterinary Physiology, Veterinary Biochemistry, Veterinary Surgery & Radiology, Veterinary Pathology, Animal Biotechnology

VAN-790	Ph.D. Thesis Research	45
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Total 75

List of Post Graduate Courses of the Department

VAN 600	Master's Seminar	1
VAN 601	Special Problem	1-2
VAN 602	Comparative Splanchnology	4(2-0-2)
VAN 603	Myology, Angiology, Neurology and Aesthesiology of Ox	4(1-0-3)
VAN 604	Gross Anatomical Techniques	2(0-0-2)
VAN 605	Theory and Practice of Histological And Histochemical Techniques	3(1-0-2)
VAN 606	General Histology and Ultrastructure	4(3-0-1)
VAN 607	Systemic Histology and Ultrastructure	4(3-0-1)
VAN 608	Developmental Anatomy	4(3-0-1)
VAN 609	Comparative Osteology and Arthrology	3(1-0-2)
VAN 690	Master's Thesis Research	20
VAN 701	Myology, Angiology, Neurology and Aesthesiology of Equine, Canine and Porcine	3(0-0-3)
VAN 702	Principles and Applications of Biomechanics	2(2-0-0)
VAN 703	Avian Anatomy	3(1-0-2)
VAN 704	Neuroanatomy	4(3-0-1)
VAN 705	Endocrine Anatomy	3(2-0-1)
VAN 706	Theory and Applications of Electron Microscope	3(2-0-1)
VAN 707	Histoenzymology and Immunocytochemistry	3(2-0-1)
VAN 708	Applied Embryology and Teratology	3(1-0-2)
VAN 709	Functional Veterinary Anatomy	2(2-0-0)
VAN 710	Gross Anatomy of Laboratory Animals	2(1-0-1)
VAN 788	Doctoral Seminar-I	1
VAN 789	Doctoral Seminar-II	1
VAN 790	Ph.D. Thesis Research	45

6. Veterinary & Animal Husbandry Extension Education

M.V.Sc. (Veterinary & Animal Husbandry Extension)

Core Courses (17 credits)

VEX-604	Extension Techniques and Audio Visual Aids	3(2-0-1)
VEX-605	Animal Husbandry Programme Planning and Evaluation	3(2-0-1)
VEX-606	Research Methodology in Veterinary and Animal Husbandry Extension	3(2-0-1)
VEX-609	Development in the concept of Extension	1(1-0-0)
VEX-610	Human Resource Management in Animal Husbandry Sector	3(2-0-1)
VEX-611	Gender and livestock development	1(1-0-0)
VEX-612	Information and communication technology in Livestock development	2(1-0-1)
VEX-600	Master's Seminar	1(1-0-0)
	Sub Total	17

Basic Supporting Courses (3 credits)

BPS-561	Statistical Methods	3(2-0-1)
		10

Optional/ Minor Courses (10 credits)

Thesis Research (20 credits)

VEX-690	Master's Thesis Research	20
	Total	50

Compulsory Courses for minor for other disciplines

VEX-605	Animal Husbandry Programme Planning and Evaluation	3(2-0-1)
VEX-613	Fundamentals of Veterinary and Animal Husbandry Extension	3(2-0-1)

List of Post Graduate Courses of the Department

VEX-600	Master's Seminar	1(1-0-0)
VEX-602	Communication for Livestock Development	2(1-0-1)
VEX-603	Diffusion and Adoption of Animal Husbandry Practices	3(2-0-1)
VEX-604	Extension Techniques and Audio Visual Aids	3(2-0-1)
VEX-605	Animal Husbandry Programme Planning and Evaluation	3(2-0-1)
VEX-606	Research Methodology in Veterinary and Animal Husbandry Extension	3(2-0-1)
VEX-607	Social Psychology and Group Dynamics	3(2-0-1)
VEX-608	Animal Husbandry Development Programmes	1(1-0-0)
VEX-609	Development in the Concept of Extension	1(1-0-0)
VEX-610	Human Resource Management in Animal Husbandry Sector	3(2-0-1)
VEX-611	Gender and Livestock Development	1(1-0-0)
VEX-612	Information and Communication Technology In Livestock Development	2(1-0-1)
VEX-613	Fundamentals of Veterinary and Animal Husbandry Extension	3(2-0-1)
VEX-690	Master's Thesis Research	20

7. Veterinary Gynaecology & Obstetrics

M.V.Sc. (Veterinary Gynaecology & Obstetrics)

Core Courses (17 credits)

VGO 600	Master's Seminar	1
VGO 611	General Gynaecology	4(3-0-1)
VGO 612	Female Infertility	4(3-0-1)
VGO 613	Veterinary Obstetrics	4(3-0-1)
VGO 614	Andrology & Male Infertility	4(3-0-1)
Sub Total		17

Basic Supporting Courses (3 credits)

BPS 561	Statistical Methods	3(2-0-1)
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Optional / Minor Courses (10 credits)

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Any/ Specified 600 series courses from either **VGO**, Veterinary Surgery & Radiology, Veterinary Physiology, Veterinary Biochemistry, Veterinary Medicine, Animal Biotechnology, Veterinary Pharmacology & Toxicology or Animal Nutrition

Thesis Research (20 credits)

VGO 690	Master's Thesis Research	20
Total		50

Ph.D. (Veterinary Gynaecology & Obstetrics)

Core Courses (13 credits)

VGO 701	Advances in Gynaecology	3(2-0-1)
VGO 702	Advances in Obstetrics	3(2-0-1)
VGO 703	Advances in Andrology	3(2-0-1)
VGO 706	Advanced Clinical Practice I	1(0-0-1)
VGO 707	Advanced Clinical Practice II	1(0-0-1)
VGO 788	Doctoral Seminar-I	1
VGO 789	Doctoral Seminar-II	1
Sub Total		13

Basic Supporting Courses (2 credits)

BPS606	Computer Application in Biometrics	2(0-0-2)
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Optional Courses (5 credits)

5

Minor courses (10 credits)

10

Thesis Research (45 credits)

VGO 790	Ph.D. Thesis Research	45
Total		75

Minor Courses (10 credits)

Any/ Specified 600 or above series courses from either Veterinary Surgery & Radiology, Veterinary Physiology, Veterinary Biochemistry, Veterinary Medicine, Animal Biotechnology, Veterinary Pharmacology & Toxicology or Animal Nutrition

Compulsory Minor Package for other Departments

VGO 612	Female Infertility	4(3-0-1)
VGO 614	Andrology & Male Infertility	4(3-0-1)

List of Post Graduate Courses of the Department

VGO 600	Masters Seminar	1
VGO 601	Special Problem	1
VGO 611	General Gynaecology	4(3-0-1)
VGO 612	Female Infertility	4(3-0-1)
VGO 613	Veterinary Obstetrics	4(3-0-1)
VGO 614	Andrology & Male Infertility	4(3-0-1)
VGO 615	Semen Preservation and Artificial Insemination	3(2-0-1)
VGO 616	Reproductive Biotechnology	3(2-0-1)
VGO 617	Clinical Practice I	1(0-0-1)
VGO 618	Clinical Practice II	1(0-0-1)
VGO 690	Masters Thesis Research	20
VGO 701	Advances in Gynaecology	3(2-0-1)
VGO 702	Advances in Obstetrics	3(2-0-1)
VGO 703	Advances in Andrology	3(2-0-1)
VGO 704	Advances in Reproductive Biotechnology	2(1-0-1)
VGO 705	Advances in Semen Preservation	2(1-0-1)
VGO 706	Advanced Clinical Practice I	1(0-0-1)
VGO 707	Advanced Clinical Practice II	1(0-0-1)
VGO 788	Doctoral Seminar-I	1
VGO 789	Doctoral Seminar-II	1
VGO 790	Ph.D. Thesis Research	45

8. Veterinary Medicine

M.V.Sc. Veterinary Medicine

Core Courses (17 credits)

VMD 600	Master's Seminar	1
VMD 610	Avian Medicine	2(1-0-1)
VMD 611	Ruminant Medicine –I	2(2-0-0)
VMD 612	Ruminant Medicine –II	2(2-0-0)
VMD 613	Canine & Feline Medicine	2(2-0-0)
VMD 614	Clinical Diagnostic Techniques	3(1-0-2)
VMD 615	Clinical Practice I	1(0-0-1)
VMD 616	Clinical Practice II	1(0-0-1)
VMD 617	Veterinary Emergency Medicine	1(0-0-1)
VMD 626	Veterinary Forensic Medicine	2(1-0-1)
Sub Total		17

Basic Supporting Courses (3 credits)

BPS 531	Data Analysis Using Statistical Packages or A suitable course of statistics	3(2-0-1)
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Optional/Minor Courses (10 credits)

10

Thesis Research (20 credits)

VMD 690	Master's Thesis Research	20
Total		50

Ph.D. Veterinary Medicine

Core Courses (12 credits)

VMD 701	Advances in Gastroenterology	2(2-0-0)
VMD 715	Advanced Clinical Practice I	1(0-0-1)
VMD 716	Advanced Clinical Practice II	1(0-0-1)
VMD 717	Advanced Clinical Practice III	1(0-0-1)
VMD 718	Advances in Veterinary Therapeutics	2(1-0-1)
VMD 768	Advances in Veterinary Diagnostics	3(1-0-2)
VMD 788	Doctoral Seminar-I	1
VMD 789	Doctoral Seminar-II	1
Sub Total		12

Basic Supporting Courses (3 credits)

VPT607	Chemotherapy	3(2-0-1)
Sub Total		3

Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

VMD 790	Ph.D. Thesis Research	45
Total		75

Compulsory Courses for the minor for other disciplines (4 credits)

VMD 614	Clinical Diagnostic Techniques	3(1-0-2)
VMD 615	Clinical Practice I	1(0-0-1)

List of Post Graduate Courses of the Department

VMD 600	Master's Seminar	1
VMD 601	Special Problem	1
VMD 610	Avian Medicine	2(1-0-1)
VMD 611	Ruminant Medicine -I	2(2-0-0)
VMD 612	Ruminant Medicine -II	2(2-0-0)
VMD 613	Canine & Feline Medicine	2(2-0-0)
VMD 614	Clinical Diagnostic Techniques	3(1-0-2)
VMD 615	Clinical Practice I	1(0-0-1)
VMD 616	Clinical Practice II	1(0-0-1)
VMD 617	Veterinary Emergency Medicine	1(0-0-1)
VMD 621	Equine Medicine	2(2-0-0)
VMD 622	Swine Medicine	1(1-0-0)
VMD 623	Zoo, Wild and Laboratory Animal Medicine	3(2-0-1)
VMD 624	Production Diseases	2(2-0-0)
VMD 625	Diseases of Animals Caused by Toxicants	1(1-0-0)
VMD 626	Veterinary Forensic Medicine	2(1-0-1)
VMD 690	Master's Thesis Research	20
VMD 701	Advances in Gastroenterology	2(2-0-0)
VMD 702	Advances in Cardio-pulmonary Medicine	2(2-0-0)
VMD 703	Advances in Neurological and Urological Disorders	2(2-0-0)
VMD 704	Advances in Endocrine and Dermatological Disorders	2(2-0-0)
VMD 705	Advances in Production Diseases	2(2-0-0)
VMD 706	Advances in Paediatrics and Geriatrics	1(1-0-0)
VMD 715	Advanced Clinical Practice I	1(0-0-1)
VMD 716	Advanced Clinical Practice II	1(0-0-1)
VMD 717	Advanced Clinical Practice III	1(0-0-1)
VMD 718	Advances in Veterinary Therapeutics	2(1-0-1)
VMD 768	Advances in Veterinary Diagnostics	3(1-0-2)
VMD 788	Doctoral Seminar-I	1
VMD 789	Doctoral Seminar-II	1
VMD 790	Ph.D. Thesis Research	45

9. Veterinary Microbiology

M.V.Sc. (Microbiology & Immunology)

Core Courses (17 credits)

VMC-610	Bacteriology – I	4(3-0-1)
VMC-602	Bacteriology – II	4(3-0-1)
VMC-603	Veterinary Mycology	2(1-0-1)
VMC-604	General Virology	3(2-0-1)
VMC-606	Principles of Immunology	3(2-0-1)
VMC-600	Master's Seminar	1
	Sub Total	17

Basic Supporting Courses (4 credits)

BBC-501	General Biochemistry	3(3-0-0)
BBC-505	Basic Techniques in Biochemistry	1(0-0-1)
	Sub Total	4

Optional/Minor Courses (9 credits)

Any 600 series courses from either Veterinary Microbiology (in case minor is not opted), Animal Biotechnology, Veterinary Epidemiology & Preventive Medicine, Veterinary Pathology, Veterinary Public Health, Veterinary Biochemistry

Thesis Research (20 credits)

VMC-690	Master's Thesis Research	20
	Total	50

Ph.D. (Microbiology & Immunology)

Core Courses (13 credits)

VMC-701	Advances in Bacteriology	3(2-0-1)
VMC-706	Advances in Virology	3(2-0-1)
VMC-711	Molecular Immunology	3(2-0-1)
VMC-714	Advances in Vaccinology	2(2-0-0)
VPY -788	Doctoral Seminar-I	1
VPY -789	Doctoral Seminar-II	1
	Sub Total	13

Basic Supporting Courses (3 credits)

BMB-520	Fundamental of Molecular Biology	3(3-0-0)
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Optional Courses (4 credits)

4

Minor Courses (10 credits)

10

Any 600 or above series courses from either Animal Biotechnology, Veterinary Epidemiology & Preventive Medicine, Veterinary Pathology, Veterinary Public Health, Veterinary Biochemistry

Thesis Research (45 credits)

VMC-790	Ph.D. Thesis Research	45
	Total	75

List of Post Graduate Courses of the Department

VMC 600	Master's seminar	1
VMC 601	Special Problem	1-2
VMC 610	Bacteriology – I	4(3-0-1)
VMC 602	Bacteriology – II	4(3-0-1)
VMC 603	Veterinary Mycology	2(1-0-1)
VMC 604	General Virology	3(2-0-1)
VMC 605	Systematic Animal Virology	4(3-0-1)
VMC 606	Principles of Immunology	3(2-0-1)
VMC 607	Vaccinology	2(2-0-0)
VMC 608	Diagnostics of Infectious diseases	3(1-0-2)
VMC 609	Techniques in Microbiology and Immunology	3(0-0-3)
VMC 690	Master's Thesis Research	20
VMC 701	Advances in Bacteriology	3(2-0-1)
VMC 702	Advances in Mycology	3(2-0-1)
VMC 703	Bacterial Genetics	3(2-0-1)
VMC 704	Microbial Toxins	3(2-0-1)
VMC 705	Molecular Determinants of Bacterial Pathogenesis	3(2-0-1)
VMC 706	Advances in Virology	3(2-0-1)
VMC 707	Molecular and Genetic Aspects of Viral Pathogenesis	3(2-0-1)
VMC 708	Structure Function Relationship of DNA and RNA Viruses	3(3-0-0)
VMC 709	Oncogenic Viruses	2(2-0-0)
VMC 710	Slow Viral Infections and Prions	2(2-0-0)
VMC 711	Molecular Immunology	3(2-0-1)
VMC 712	Advances in Cellular Immunology	3(2-0-1)
VMC 713	Cytokines and immunomodulators	2(2-0-0)
VMC 714	Advances in Vaccinology	2(2-0-0)
VMC 715	Advances in Immunodiagnosics	2(1-0-1)
VMC 716	Modern Immunotechnology	3(1-0-2)
VMC 717	Current Topics in Infection and Immunity	3(3-0-0)
VMC 718	Veterinary Microbial Biotechnology	3(2-0-1)
VMC 788	Doctoral Seminar-I	1(1-0-0)
VMC 789	Doctoral Seminar-II	1(1-0-0)
VMC 790	Ph.D. Research	45

10. Veterinary Pathology
M.V.Sc. (Veterinary Pathology)

Core Courses (17 credits)

VPP-600	Master's Seminar	1(1-0-0)
VPP-613	General Pathology	3(2-0-1)
VPP 603	Animal Oncology	2(1-0-1)
VPP-604	Clinical Pathology	3(1-0-2)
VPP-605	Necropsy Procedures and Interpretations-I	1(0-0-1)
VPP-606	Necropsy Procedures and Interpretations-II	1(0-0-1)
VPP- 607	Advanced Systemic Pathology	3(2-0-1)
VPP-610	Avian Pathology	3(2-0-1)

Sub Total 17

Basic Supporting Courses (3 credits)

BPS-561	Statistical Methods	3(2-0-1)
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Optional/ Minor Courses (10 credits)

10

Thesis Research (20 credits)

VPP-690	Master's Thesis Research	20
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Total 50

Compulsory Courses for minor for other disciplines for master's programme

VPP-604	Clinical Pathology	3(1-0-2)
VPP-605	Necropsy Procedures and Interpretations-I	1(0-0-1)
VPP-606	Necropsy Procedures and Interpretations-II	1(0-0-1)
VPP-610	Avian Pathology	3(2-0-1)

Ph.D. (Veterinary Pathology)

Core Courses (12 credits)

VPP-701	Pathology of Nutritional and Metabolic Disturbances	3(2-0-1)
VPP-704	Ultra Structural Pathology	2(1-0-1)
VPP-706	Pathology of Important and Emerging Diseases of Pets and Livestock	2(1-0-1)
VPP- 707	Advances in Avian Pathology	3(2-0-1)
VPP-788	Doctoral Seminar-I	1(1-0-0)
VPP-789	Doctoral Seminar-II	1(1-0-0)

Sub Total 12

Basic Supporting Courses (3 credits)

BBC-501	General Biochemistry	3(3-0-0)
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Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

VPP-790	Ph.D. Thesis Research	45
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Total 75

Compulsory Courses for minor for other disciplines for Ph. D. programme

VPP-701	Pathology of Nutritional and Metabolic Disturbances	3(2-0-1)
VPP-703	Advances in Diagnostic Pathology	3(1-0-2)
VPP-704	Ultra structural Pathology	2(1-0-1)
VPP-706	Pathology of Important and Emerging Diseases of Pets and Livestock	2(1-0-1)

List of Post Graduate Courses of the Department

VPP-600	Master's Seminar	1(1-0-0)
VPP-601	Special Problem	1-2
VPP-602	Techniques in Pathology	2(1-0-1)
VPP-603	Animal Oncology	2(1-0-1)
VPP-604	Clinical Pathology	3(1-0-2)
VPP-605	Necropsy Procedures and Interpretations-I	1(0-0-1)
VPP-606	Necropsy Procedures and Interpretations-II	1(0-0-1)
VPP-607	Advanced Systemic Pathology	3(2-0-1)
VPP-608	Pathology of Infectious Diseases of Domestic Animals	3(2-0-1)
VPP-609	Toxicopathology	3(2-0-1)
VPP-610	Avian Pathology	3(2-0-1)
VPP-611	Pathology of Laboratory Animals, Fish and Wild Animals	3(2-0-1)
VPP-612	Veterolegal Pathology	1(1-0-0)
VPP-613	General Pathology	3(2-0-1)
VPP-690	Master's Thesis Research	20
VPP-701	Pathology of Nutritional and Metabolic Disturbances	3(2-0-1)
VPP-702	Advances in Toxicopathology	3(2-0-1)
VPP-703	Advances in Diagnostic Pathology	3(1-0-2)
VPP-704	Ultra structural Pathology	2(1-0-1)
VPP-705	Immunopathology	3(2-0-1)
VPP-706	Pathology of Important and Emerging Diseases of Pets and Livestock	2(1-0-1)
VPP-707	Advances in Avian Pathology	3(2-0-1)
VPP-708	Pathology of Fungal Diseases	3(2-0-1)
VPP-709	Molecular Pathology of Cell Injury	3(2-0-1)
VPP-710	Experimental Pathology	2(1-0-1)
VPP-788	Doctoral Seminar-I	1(0-0-1)
VPP-789	Doctoral Seminar-II	1(0-0-1)
VPP-790	Ph.D. Thesis Research	45

11. Veterinary Parasitology

M.V.Sc. (Veterinary Parasitology)

Core Courses (12 credits)

VPA-604	Veterinary Protozoology	3(2-0-1)
VPA-605	Parasitological Techniques	2(0-0-2)
VPA-612	Veterinary Helminthology I	3(2-0-1)
VPA-613	Veterinary Helminthology II	3(2-0-1)
VPA-600	Master's Seminar	1

Sub Total **12**

Basic Supporting Courses (8 credits)

BPS-561	Statistical Methods	3(2-0-1)
VPP-602	Techniques in Pathology	2(1-0-1)
VMC-630	Principles of Immunology	3(2-0-1)

Sub Total **8**

Optional/ Minor Courses (10 credits)

Thesis Research (20 credits)

VPA-690	Master's Thesis Research	20
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Total **50**

Ph. D. (Veterinary Parasitology)

Core Courses (12 credits)

VPA-702	Molecular Diagnostics & Vaccine Development in Parasitology	3(2-0-1)
VPA-703	Host Parasite Interactions	2(2-0-0)
VPA-709	Emerging and Re-emerging Parasitic Diseases	2(2-0-0)
VPA-710	Bionomics of Parasites	3(3-0-0)
VPA-788	Doctoral Seminar-I	1
VPA-789	Doctoral Seminar-II	1

Sub Total **12**

Basic Supporting Courses (3 credits)

VMD-768	Advances in Veterinary Diagnostics	3(1-0-2)
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Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

VPA-790	Ph.D. Thesis Research	45
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Total **75**

Compulsory Courses for minor for other disciplines

VPA-605	Parasitological Techniques	2(0-0-2)
VPA-612	Veterinary Helminthology I	3(2-0-1)
VPA-613	Veterinary Helminthology II	3(2-0-1)

List of Post Graduate Courses of the Department

VPA-600	Master's Seminar	1
VPA-601	Special Problem	1-2
VPA-603	Entomology & Acarology	3(2-0-1)
VPA-604	Veterinary Protozoology	3(2-0-1)
VPA-605	Parasitological Techniques	2(0-0-2)
VPA-606	Clinical Parasitology	2(1-0-1)
VPA-607	Trends in Control of Livestock and Poultry Parasites	2(1-0-1)
VPA-608	Immunoparasitology	3(2-0-1)
VPA-609	Parasitic Zoonoses	2(2-0-0)
VPA-610	Parasites of Zoo and Wild Animals	3(2-0-1)
VPA-611	Malacology	2(1-0-1)
VPA-612	Veterinary Helminthology I	3(2-0-1)
VPA-613	Veterinary Helminthology II	3(2-0-1)
VPA-690	Master's Thesis Research	15
VPA-701	Applications of Remote Sensing and Geographic Information System in Parasitology	3(1-0-2)
VPA-702	Molecular Diagnostics and Vaccine Development in Parasitology	3(2-0-1)
VPA-703	Host Parasite Interactions	2(2-0-0)
VPA-704	Advances in Protozoology	3(2-0-1)
VPA-705	Advances in Helminthology I	3(2-0-1)
VPA-706	Advances in Helminthology II	3(2-0-1)
VPA-707	Advances in Entomology & Acarology	3(2-0-1)
VPA-708	<i>In-Vitro</i> Cultivation of Parasites	3(1-0-2)
VPA-709	Emerging and Re-emerging Parasitic Diseases	2(2-0-0)
VPA-710	Bionomics of Parasites	3(3-0-0)
VPA-711	Environmental Parasitology	2(1-0-1)
VPA-788	Doctoral Seminar-I	1
VPA-789	Doctoral Seminar-II	1
VPA-790	Ph.D. Thesis Research	45

12. Veterinary Pharmacology & Toxicology

M.V.Sc. (Veterinary Pharmacology & Toxicology)

Core Courses (18 credits)

VPT-602	Autonomic and Autacoid Pharmacology	3(2-0-1)
VPT-605	Cardiovascular and Renal Pharmacology	2(2-0-0)
VPT-607	Chemotherapy	3(2-0-1)
VPT-608	Toxicology of Xenobiotics	3(2-0-1)
VPT-610	Pharmacological Techniques	2(1-0-1)
VPT-611	Techniques in Toxicology	2(1-0-1)
VPT-614	General Pharmacology	2(2-0-0)
VPT-600	Master's Seminar	1

Sub Total 18

Basic Supporting Courses (3 credits)

BPS-561	Statistical Methods	3(2-0-1)
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Optional/ Minor Courses (9 credits)

9

Thesis Research (20 credits)

VPT-690	Master's Thesis Research	20
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Total 50

Ph.D. (Veterinary Pharmacology & Toxicology)

Core Courses (14 credits)

VPT-701	Advances in Neuropharmacology	2(2-0-0)
VPT-704	Drug Metabolism	2(2-0-0)
VPT-705	Molecular Pharmacology	2(2-0-0)
VPT-707	Pharmacogenomics	2(2-0-0)
VPT-709	Molecular Toxicology	2(2-0-0)
VPT-710	Clinical Pharmacology	2(1-0-1)
VPT-788	Doctoral Seminar-I	1
VPT-789	Doctoral Seminar-II	1

Sub Total 14

Basic Supporting Courses (2 credits)

VMD-718	Advances in Veterinary Therapeutics	2(1-0-1)
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Optional Courses (4 credits)

4

Minor Courses (10 credits)

10

Thesis Research (45 credits)

VPT-790	Ph.D. Thesis Research	45
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Total 75

Compulsory Courses for minor for other disciplines

VPT-602	Autonomic and Autacoid Pharmacology	3(2-0-1)
VPT-607	Chemotherapy	3(2-0-1)

List of Post Graduate Courses of the Department

VPT-600	Master's Seminar	1
VPT-601	Special Problem	2
VPT-602	Autonomic and Autacoid Pharmacology	3(2-0-1)
VPT-603	CNS Pharmacology	3(2-0-1)
VPT-604	Digestive and Respiratory Pharmacology	2(2-0-0)
VPT-605	Cardiovascular and Renal Pharmacology	2(2-0-0)
VPT-606	Endocrine and Reproductive Pharmacology	2(2-0-0)
VPT-607	Chemotherapy	3(2-0-1)
VPT-608	Toxicology of Xenobiotics	3(2-0-1)
VPT-609	Toxicology of Plants and Toxins	2(2-0-0)
VPT-610	Pharmacological Techniques	2(1-0-1)
VPT-611	Techniques in Toxicology	2(1-0-1)
VPT-612	Ethnopharmacology	2(2-0-0)
VPT-614	General Pharmacology	2(2-0-0)
VPT-690	Master's Thesis Research	20
VPT-701	Advances in Neuropharmacology	2(2-0-0)
VPT-702	Autacoid Pharmacology	1(1-0-0)
VPT-703	Pharmacology of Herbal Drugs	3(2-0-1)
VPT-704	Drug Metabolism	2(2-0-0)
VPT-705	Molecular Pharmacology	2(2-0-0)
VPT-706	Pharmacokinetics	3(2-0-1)
VPT-707	Pharmacogenomics	2(2-0-0)
VPT-708	Immunopharmacology	1(1-0-0)
VPT-709	Molecular Toxicology	2(2-0-0)
VPT-710	Clinical Pharmacology	2(1-0-1)
VPT-711	Clinical Toxicology	3(2-0-1)
VPT-712	Ecotoxicology	2(2-0-0)
VPT-713	Regulatory Toxicology	3(2-0-1)
VPT-788	Doctoral Seminar-I	1
VPT-789	Doctoral Seminar-II	1
VPT-790	Ph.D. Thesis Research	45

13. Veterinary Physiology & Biochemistry

M.V.Sc. (Veterinary Physiology)

Core Courses (19 credits)

VPY 602	Cardiovascular and Respiratory Physiology	3(2-0-1)
VPY 603	Renal Physiology and Body Fluid Dynamics	3(2-0-1)
VPY 606	Physiology of Animal Reproduction	3(2-0-1)
VPY608	Neuro-muscular Physiology	3(2-0-1)
VPY 609	Hormones in Animal Production	3(3-0-0)
VPY-611	Physiology of Digestion	3(2-0-1)
VPY 600	Master's Seminar	1
	Sub Total	19

Basic Supporting Courses (3 or 2 credits)

ABT 616	Animal Biotechnology or	3(3-0-0)
VBC 604	Biochemistry of Biomolecules: Carbohydrates, Lipids and Membrane Structure	2(2-0-0)

Optional Courses (8 or 9 credits)

8 or 9

Thesis Research (20 credits)

VPY-690	Master's Thesis Research	20
	Total	50

Ph.D. (Veterinary Physiology)

Core Courses (14 credits)

VPY 707	Physiology of Lactation	3(2-0-1)
VPY 708	Advances in Environmental Physiology and Growth	3(2-0-1)
VPY 710	Advances in Immunophysiology	3(2-0-1)
VPY 711	Physiology of Stress	3(2-0-1)
VPY 788	Doctoral Seminar-I	1
VPY 789	Doctoral Seminar-II	1
	Sub Total	14

Basic Supporting Courses (2 credits)

VBC 603	Application of Genomics and Proteomics in molecular biology	2(2-0-0)
	Or	Or
VBC 712	Advances in Techniques in Biochemistry	2(0-0-2)

Optional Courses (4 credits)

4

Minor courses (10 credits)

10

Thesis Research (45 credits)

VPY-790	Ph.D. Thesis Research	45
	Total	75

Credit for Minor Package (10 credits)

Any 600 or above series courses from either Veterinary Anatomy & Histology, Veterinary Biochemistry, Veterinary Pharmacology & Toxicology, Animal Nutrition, Veterinary Gynaecology & Obstetrics, Livestock Production & Management, Animal Biotechnology Molecular Biology & Genetic Engineering

List of Post Graduate Courses Veterinary Physiology of the Department

Course no.	Course title	Credits
VPY 600	Master's Seminar	1
VPY 601	Special Problem	1-2
VPY 602	Cardiovascular and Respiratory Physiology	3(2-0-1)
VPY 603	Renal Physiology and Body Fluid Dynamics	3(2-0-1)
VPY 604	Haematology	3(2-0-1)
VPY 605	Vitamins and Minerals in Animal Physiology	2(2-0-0)
VPY 606	Physiology of Animal Reproduction	3(2-0-1)
VPY 607	Clinical Physiology	3(2-0-1)
VPY 608	Neuromuscular Physiology	3(2-0-1)
VPY 609	Hormones in Animal Production	3(3-0-0)
VPY 610	Research Techniques in Veterinary Physiology	2(0-0-2)
VPY 611	Physiology of Digestion	3(2-0-1)
VPY 690	Master's Research	20
VPY 701	Applied Physiology of Body Fluids and Electrolytes	3(2-0-1)
VPY 702	Physiology of Animal Behaviour	2(2-0-0)
VPY 703	Comparative Physiology of Ruminant Digestion	3(2-0-1)
VPY 704	Advances in Neuro-Endocrinology	3(2-0-1)
VPY 705	Myophysiology and Kinesiology	3(2-0-1)
VPY 706	Avian Physiology	3(2-0-1)
VPY 707	Physiology of Lactation	3(2-0-1)
VPY 708	Advances in Environmental Physiology and Growth	3(2-0-1)
VPY 709	Advances in Rumen Microbiology and Metabolism	3(2-0-1)
VPY 710	Advances in Immunophysiology	3(2-0-1)
VPY 711	Physiology of Stress	3(2-0-1)
VPY 788	Doctoral Seminar-I	1
VPY 789	Doctoral Seminar-II	1
VPY 790	Ph.D. Thesis Research	45

M.V.Sc. (Veterinary Biochemistry)

Core Courses (17 credits)

VBC 600	Master's Seminar	1
VBC 602	Techniques in Biochemistry	2(0-0-2)
VBC 605	Enzyme Catalysis, Kinetics, Inhibition and Regulation	2(2-0-0)
VBC 606	Metabolism-I: Carbohydrates and Lipids	2(2-0-0)
VBC 607	Metabolism-II: Nucleic Acids and Amino Acids	2(2-0-0)
VBC 609	Central Dogma and Protein Function	2(2-0-0)
VBC 610	Clinical Biochemistry of Animals	3(2-0-1)
VBC 613	Biochemical Basis of Animal Production	3(2-0-1)

Sub Total 17

Basic Supporting Courses (3 credits)

BPC-561	Statistical Methods	3(2-0-1)
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Optional/ Minor Courses (10 credits)

10

Thesis Research (20 credits)

VBC-690	Master's Thesis Research	20
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Total 50

Veterinary Biochemistry

Ph.D. (Veterinary Biochemistry)

Core Courses (12 credits)

VBC 702	Advances in Enzymology	2(2-0-0)
VBC 703	Advances in Clinical Biochemistry	2(0-0-2)
VBC 704	Membrane Dynamics and Signal Transduction in Animal Cell	2(2-0-0)
VBC 713	Advances In Mineral and Vitamin Metabolism and Related Diseases	2(2-0-0)
VBC 740	Control Mechanisms in Biochemistry	2(2-0-0)
VBC 788	Doctoral Seminar-I	1
VBC 789	Doctoral Seminar-II	1

Sub Total 12

Basic Supporting Courses (3 credits)

BMB 660	Molecular Genetics	3(3-0-0)
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Optional Courses (5 credits)

5

Minor Courses

10

Thesis Research (45 credits)

VBC 790	Ph.D. Thesis Research	45
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Total 75

Compulsory Courses for minor for other disciplines

VBC 604	Biochemistry of Biomolecules: Carbohydrates, Lipids and Membrane's Structure	2(2-0-0)
VBC 609	Central Dogma and Protein Function	2(2-0-0)
VBC 610	Clinical Biochemistry of Animals	3(2-0-1)

List of Post Graduate Courses in Veterinary Biochemistry of the Department

VBC 600	Master's Seminar	1
VBC-601	Special Problem	1-2
VBC 602	Techniques in Biochemistry	2(0-0-2)
VBC 603	Applications of Genomics and Proteomics in Molecular Biology	2(2-0-0)
VBC 604	Biochemistry of Biomolecules: Carbohydrates, Lipids and Membrane's Structure	2(2-0-0)
VBC 605	Enzyme Catalysis, Kinetics, Inhibition and Regulation	2(2-0-0)
VBC 606	Metabolism-I: Carbohydrates and Lipids	2(2-0-0)
VBC 607	Metabolism-II: Nucleic Acids and Amino Acids	2(2-0-0)
VBC 608	Metabolism-III: Integration and Regulation.	2(2-0-0)
VBC 609	Central Dogma and Protein Function	2(2-0-0)
VBC 610	Clinical Biochemistry of Animals	3(2-0-1)
VBC 611	Biochemical Basis of Diseases of Domestic Animals	2(2-0-0)
VBC 612	Endocrinology and Reproductive Biochemistry	2(2-0-0)
VBC 613	Biochemical Basis of Animal Production	3(2-0-1)
VBC 614	Chemistry of Animal Cell	2(2-0-0)
VBC 620	Nutrition Biochemistry	2(2-0-0)
VBC 645	Vitamins and Biochemical Functions	2(2-0-0)
VBC 690	Master's Thesis Research	20
VBC 701	Advances in Biochemistry of Ruminant Disorders	2(2-0-0)
VBC 702	Advances in Enzymology	2(2-0-0)
VBC 703	Advances in Clinical Biochemistry	2(0-0-2)
VBC 704	Membrane Dynamics and Signal Transduction in Animal Cell	2(2-0-0)
VBC 705	Methods in Protein Analysis	3(2-0-1)
VBC 706	Nutritional Biochemistry	2(2-0-0)
VBC 707	Advances in Intermediary Metabolism	2(2-0-0)
VBC 708	Endocrine Control of Fuel Metabolism	2(2-0-0)
VBC 709	Diagnostic Enzymology-I	2(2-0-0)
VBC 710	Diagnostic Enzymology-II	2(2-0-0)
VBC 711	Biochemistry of Development and Differentiation	2(2-0-0)
VBC 712	Advances in Techniques in Biochemistry	2(1-0-1)
VBC 713	Advances un Mineral and Vitamin Metabolism and Related Diseases	2(2-0-0)
VBC 740	Control Mechanisms in Biochemistry	2(2-0-0)
VBC 788	Doctoral Seminar-I	1
VBC 789	Doctoral Seminar-II	1
VBC 790	Ph.D. Thesis Research	45

M.V.Sc. (Animal Biotechnology)

Core Courses (18 credits)

ABT 600	Master's Seminar	1
ABT 602	Fundamentals of Cell & Molecular Biology	3(3-0-0)
ABT 604	Animal Cell Culture: Principles & Applications	3(1-0-2)
ABT 607	Immunology Applied to Biotechnology	2(1-0-1)
ABT 609	Animal Genomics	3(2-0-1)
ABT 611	Techniques in Molecular Biology & Genetic Engineering	3(0-0-3)
ABT 616	Animal Biotechnology	3(3-0-0)
	Sub Total	18

Basic Supporting Courses (2 credits)

VBC 604	Biochemistry of Biomolecules: Carbohydrates, Lipids and Membrane's Structure	2(2-0-0)
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Optional/ Minor Courses

ABT 690	Master's Thesis Research	20
	Total	50

Compulsory Courses for minor for other disciplines

ABT 602	Fundamentals of Cell & Molecular Biology	3(3-0-0)
ABT 616	Animal Biotechnology	3(3-0-0)

List of Post Graduate Courses of the Department

ABT 600	Master's Seminar	1
ABT 601	Special Problem	1-2
ABT 602	Fundamentals of Cell & Molecular Biology	3(3-0-0)
ABT 603	Applied Molecular Biology	3(2-0-1)
ABT 604	Animal Cell Culture: Principles & Applications	3(1-0-2)
ABT 605	Molecular Diagnostics	3(1-0-2)
ABT 606	Vaccine Biotechnology	2(2-0-0)
ABT 607	Immunology Applied to Biotechnology	2(1-0-1)
ABT 608	Introduction to Bioinformatics	2(1-0-1)
ABT 609	Animal Genomics	3(2-0-1)
ABT 610	Reproductive Biotechnology	3(2-0-1)
ABT 611	Techniques in Molecular Biology & Genetic Engineering	3(0-0-3)
ABT 612	Biodiversity, Biosafety & Bioethics	2(2-0-0)
ABT 613	Molecular Forensics	3(2-0-1)
ABT 614	Industrial Biotechnology	3(2-0-1)
ABT 615	Probiotics & Feed Biotechnology	3(3-0-0)
ABT 616	Animal Biotechnology	3(3-0-0)
ABT 617	Basic & Applied Biotechnology	3(3-0-0)
ABT 658	Genetic Engineering in Animal Health and Production	1(1-0-0)
ABT 690	Master's Thesis Research	20

14. Veterinary Public Health & Epidemiology

M.V.Sc. (Veterinary Public Health)

Core Courses (16 credits)

VPH-604	Zoonoses and Public Health	3(2-0-1)
VPH-605	Principles of Food Hygiene and Safety	3(2-0-1)
VPH-606	Food-borne Infection & Intoxications	3(2-0-1)
VPH-608	Environmental Pollution and Safety	4(3-0-1)
VPH-610	Bioterrorism & Disaster Management	2(1-0-1)
VPH-600	Master's Seminar	1
	Sub Total	16

Basic Supporting Courses (4 credits)

BBC-501	General Biochemistry	3(3-0-0)
BBC-505	Basic Technique in Biochemistry	1(0-0-1)
	Sub Total	4

Optional/ Minor Courses (10 credits)

10

Thesis Research (20 credits)

VPH-690	Master's Thesis Research	20
	Total	50

Ph.D. (Veterinary Public Health)

Core Courses (14 credits)

VPH-702	Emerging and Reemerging Zoonoses	3(2-0-1)
VPH-703	Quality Control of Animal Food Products	3(2-0-1)
VPH-704	Occupational Health Hazards	3(2-0-1)
VPH-708	Advances in Environmental Pollution Control	3(2-0-1)
VPH-788	Doctoral Seminar-I	1
VPH-789	Doctoral Seminar-II	1
	Sub Total	14

Basic Supporting Courses (2 credits)

BBC-710	Advance Techniques in Biochemistry	2(0-0-2)
	Sub Total	2

Optional Courses (4 credits)

4

Minor courses (10 credits)

10

Thesis Research (45 credits)

VPH-790	Ph.D. Thesis Research	45
	Total	75

Credit for Minor package (10 credit)

Any 600 or above series courses from either Veterinary Microbiology, Livestock Products Technology, Veterinary Parasitology, Veterinary Pathology, Animal Biotechnology, Veterinary Pharmacology & Toxicology.

List of Post Graduate Courses of the department

VPH-600	Master's Seminar	1
VPH-601	Special Problem	1
VPH-602	Bacterial and Rickettsial Agents of Public Health Significance	3(2-0-1)
VPH-603	Viral, Fungal and Parasitic Agents of Public Health Significance	3(2-0-1)
VPH-604	Zoonoses and Public Health	3(2-0-1)
VPH-605	Principles of Food Hygiene and Safety	3(2-0-1)
VPH-606	Food-Borne Infection & Intoxications	3(2-0-1)
VPH-607	Meat and Milk Hygiene	3(2-0-1)
VPH-608	Environmental Pollution and Safety	4(3-0-1)
VPH-609	Fish, Fish Products & Sea Food Hygiene	2(1-0-1)
VPH-610	Bioterrorism & Disaster Management	2(1-0-1)
VPH-611	Elements of Veterinary Public Health	2(1-0-1)
VPH-690	Master's Thesis Research	20
VPH-701	Current Topics in Veterinary Public Health	3(2-0-1)
VPH-702	Emerging and Reemerging Zoonoses	3(2-0-1)
VPH-703	Quality Control of Animal Food Products	3(2-0-1)
VPH-704	Occupational Health Hazards	3(2-0-1)
VPH-705	Disposal & Recycling of Waste	3(2-0-1)
VPH-706	Biohazards, Biosecurity & Disaster Management	2(2-0-0)
VPH-707	Food Plant Sanitation	3(2-0-1)
VPH-708	Advances in Environmental Pollution Control	3(2-0-1)
VPH-788	Doctoral Seminar-I	1
VPH-789	Doctoral Seminar-II	1
VPH-790	Ph.D. Thesis Research	45

15. Veterinary Surgery & Radiology

M.V.Sc. Surgery & Radiology

Core Courses (18 credits)

VSR-600	Master's Seminar	1
VSR-602	Clinical Practice-I	1(0-0-1)
VSR-604	Small Animal Anaesthesia	2(1-0-1)
VSR-605	Large Animal Anaesthesia	2(1-0-1)
VSR-606	Diagnostic Imaging Techniques	2(1-0-1)
VSR-607	Veterinary Ophthalmology and Dentistry	2(1-0-1)
VSR-608	Principles of Surgery	2(1-0-1)
VSR-609	Large Animal Soft Tissue Surgery	3(2-0-1)
VSR-610	Orthopedic and Limb Surgery	3(2-0-1)

Sub Total 18

Basic Supporting Courses (3 credits)

VPS-561	Statistical Methods	3(2-0-1)
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Optional/ Minor Courses (9 credits)

9

Thesis Research (20 credits)

VSR-690	Master's Thesis Research	20
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Total 50

Ph.D. Surgery & Radiology

Core Courses (13 credits)

VSR-701	Clinical Surgical Practice-I	1(0-0-1)
VSR-705	Advances in Anaesthesiology	3(2-0-1)
VSR-706	Advances in Diagnostic Imaging Techniques	3(2-0-1)
VSR-709	Body Electrolyte and Fluid Therapy	2(1-0-1)
VSR-710	Small Animal Soft Tissue Surgery (Thoracic & Cardiovascular)	2(1-0-1)
VSR-788	Doctoral Seminar I	1
VSR-789	Doctoral Seminar II	1

Sub Total 13

Basic Supporting Courses (3 credits)

VMD-768	Advances in Veterinary Diagnostics	3(1-0-2)
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Optional Courses (4 credits)

4

Credits for Minor package (10 credits)

10

Thesis Research (45 credits)

VSR-790	Ph.D. Thesis Research	45
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Total 75

Compulsory Courses for minor for other disciplines

VSR-605	Large Animal Anaesthesia	2(1-0-1)
VSR-606	Diagnostic Imaging Techniques	2(1-0-1)
VSR-611	Experimental Surgical Techniques in Animals	2(1-0-1)
VSR-612	Radiographic Anatomy	2(1-0-1)

List of Post Graduate Courses of the Department

VSR-600	Master's Seminar	1
VSR-601	Special Problem	1
VSR-602	Clinical Practice-I	1(0-0-1)
VSR-603	Clinical Practice-II	1(0-0-1)
VSR-604	Small Animal Anaesthesia	2(1-0-1)
VSR-605	Large Animal Anaesthesia	2(1-0-1)
VSR-606	Diagnostic Imaging Technique	2(1-0-1)
VSR-607	Veterinary Ophthalmology and Dentistry	2(1-0-1)
VSR-608	Principles of Surgery	2(1-0-1)
VSR-609	Large Animal Soft Tissue Surgery	3(2-0-1)
VSR-610	Orthopaedic and Limb Surgery	3(2-0-1)
VSR-611	Experimental Surgical Techniques in Animals	2(1-0-1)
VSR-612	Radiographic Anatomy	2(1-0-1)
VSR-690	Master's Thesis Research	20
VSR-701	Clinical Surgical Practice-I	1(0-0-1)
VSR-702	Clinical Surgical Practice-II	1(0-0-1)
VSR-703	Clinical Surgical Practice-III	1(0-0-1)
VSR-704	Anaesthesia of Wild and Laboratory Animal	2(1-0-1)
VSR-705	Advances in Anaesthesiology	3(2-0-1)
VSR-706	Advances in Diagnostic Imaging Techniques	3(2-0-1)
VSR-707	Neurosurgery	2(1-0-1)
VSR-709	Body Electrolyte and Fluid Therapy	2(1-0-1)
VSR-710	Small Animal Soft Tissue Surgery (Thoracic & Cardiovascular)	2(1-0-1)
VSR-788	Doctoral Seminar I	1
VSR-789	Doctoral Seminar II	1
VSR-790	Ph.D. Thesis Research	45