

1. ANIMAL GENETICS AND BREEDING

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

Core Courses (14 credits)

AGB-600	Master's Seminar	1
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)

Basic Supporting Courses (6 credits)

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

Optional/ Minor Courses (10 credits)

10

Thesis Research (20 credits)

AGB-690	Master's Thesis Research	20
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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

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)

AGB-790	Ph.D. Thesis Research	45
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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-600	Master's Seminar	1
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)

Basic Supporting Courses (6 credits)

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

Optional/ Minor Courses (9 credits)

9

Thesis Research (20 credits)

ANN-690	Master's Thesis Research	20
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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

Basic Supporting Courses (3 credits)

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

Minor Courses (10 credits)

Thesis Research (45 credits)

ANN-790	Ph.D. Thesis Research	45
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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

* Prerequisite courses ANN-611 Energy and Protein in Animal Nutrition and ANN-612 Minerals, Vitamins and Feed Additives in Animal Nutrition for those who have not done M.V.Sc. in Animal Nutrition

3. Livestock Production Management

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

Core Courses (15 credits)

LPM-600	Master's Seminar	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-614	Cattle and Buffalo Production and Management	3(2-0-1)

Basic Supporting Courses (6 credits)

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

Optional / Minor Courses (9 credits)

9

Thesis Research (20 credits)

LPM -690	Master's Thesis Research	20
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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

Basic Supporting Courses (4 credits)

BPS -606	Computer Application in Biometrics	2(0-0-2)
AGB-702	Recent Trends in Animal Breeding	2(2-0-0)

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

M.V.Sc./M.Sc. Ag. Poultry Science

Core Courses (16 credits)

LPM-600	Master's Seminar	1
LPM-613	Livestock Business Management	2(1-0-1)
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	4(3-0-1)
LPM-636	Management of Poultry (other than chicken)	3(2-0-1)

Basic Supporting Courses (5 credits)		
LPT-604	Egg and Egg Products Technology	2(1-0-1)
BPS-561	Statistical Method	3(2-0-1)
Optional /Minor Courses (9 credits)		9
Thesis Research (20 credits)		
LPM -690	Master's Thesis Research	20
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 Products Technology	3(2-0-1)
LPM-735	Advance Poultry Breeding Methods	3(2-0-1)
LPM-788	Doctoral Seminar-I	1
LPM-789	Doctoral Seminar-II	1
Basic Supporting Courses (4 credits)		
BPS-606	Computer Application in Biometrics	2(0-0-2)
LPT-605	Abattoir and Poultry Processing Plant Practices	2(1-0-1)
Optional Courses (5 credits)		5
Minor Courses (10 credits)		10
Thesis Research (45 credits)		
LPM -790	Ph.D. Thesis Research	45
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	2(1-0-1)
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	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	4(3-0-1)
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 600	Master's Seminar	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 608	Market Milk Processing and Dairy Plant Practices	3(2-0-1)
LPT-613	Fresh Meat Technology	2(1-0-1)

Basic Supporting Courses(6 credits)

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

Optional/ Minor Courses (9 credits)

9

Thesis Research (20 Credits)

LPT 690	Master's Thesis Research	20
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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-600	Master's Seminar	1
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)
VAN-608	Developmental Anatomy	4(3-0-1)

Basic Supporting Courses (3 credits)

VPY-602	Cardiovascular and Respiratory Physiology	3(2-0-1)
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Optional/ Minor Courses (9 credits)

9

Any 600 series courses from either Veterinary Anatomy and 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

Basic Supporting Courses (3 credits)

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

Minor Courses (10 credits)

10

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

Thesis Research (45 credits)

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 AND ANIMAL HUSBANDRY EXTENSION EDUCATION

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

Core Courses (17 credits)

VEX-600	Master's Seminar	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-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)

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)

VEX-690	Master's Thesis Research	20
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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
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 and 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 and Male Infertility	4(3-0-1)

Basic Supporting Courses (3 credits)

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

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

Thesis Research (20 credits)

VGO-690	Master's Thesis Research	20
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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

Basic Supporting Courses (2 credits)

BPS-606	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
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Total 75

Disciplines for Minor

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

Compulsory Minor Courses for other Disciplines

VGO-612	Female Infertility	4(3-0-1)
VGO-614	Andrology and 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	Master's 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 and 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)

Basic Supporting Courses (3 credits)

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

Thesis Research (20 credits)

VMD-690	Master's Thesis Research	20
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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

Basic Supporting Courses (3 credits)

VPT-607	Chemotherapy	3(2-0-1)
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Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

VMD-790	Ph.D. Thesis Research	45
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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 and 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 and Immunology)

Core Courses (17 credits)

VMC-600	Master's Seminar	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-610	Bacteriology-I	4(3-0-1)

Basic Supporting Courses (4 credits)

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

Optional/Minor Courses (9 credits)

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

Thesis Research (20 credits)

VMC-690	Master's Thesis Research	20
Total		50

Ph.D. (Microbiology and 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)
VMC -788	Doctoral Seminar-I	1
VMC -789	Doctoral Seminar-II	1

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

Thesis Research (45 credits)

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

Disciplines of Minor

Any 600 or above series courses from either Animal Biotechnology, Veterinary Pathology, Veterinary Public Health and Epidemiology, Veterinary Physiology and Biochemistry

List of Post Graduate Courses of the Department

VMC-600	Master's Seminar	1
VMC-601	Special Problem	1-2
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-610	Bacteriology-I	4(3-0-1)
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
VMC-789	Doctoral Seminar-II	1
VMC-790	Ph.D. Research	45

10. VETERINARY PATHOLOGY

M.V.Sc. (Veterinary Pathology)

Core Courses (17 credits)

VPP-600	Master's Seminar	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	Systemic Pathology	3(2-0-1)
VPP-610	Avian Pathology	3(2-0-1)
VPP-613	General Pathology	3(2-0-1)

Basic Supporting Courses (3 credits)

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

Thesis Research (20 credits)		20
VPP-690	Master's Thesis Research	20

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
VPP-789	Doctoral Seminar-II	1

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
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	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
VPP-789	Doctoral Seminar-II	1
VPP-790	Ph.D. Thesis Research	45

11. VETERINARY PARASITOLOGY

M.V.Sc. (Veterinary Parasitology)

Core Courses (12 credits)

VPA-600	Master's Seminar	1
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)

Basic Supporting Courses (8 credits)

BPS-561	Statistical Methods	3(2-0-1)
VPP-602	Techniques in Pathology	2(1-0-1)
VMC-606	Principles of Immunology	3(2-0-1)

Optional/ Minor Courses (10 credits)

Thesis Research (20 credits)

VPA-690	Master's Thesis Research	20
Total		50

Ph. D. (Veterinary Parasitology)

Core Courses (12 credits)

VPA-702	Molecular Diagnostics and 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

Basic Supporting Courses (3 credits)

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

Minor Courses (10 credits)

Thesis Research (45 credits)

VPA-790	Ph.D.Thesis Research	45
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 and 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	20
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	In-Vitro 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 AND TOXICOLOGY

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

Core Courses (18 credits)

VPT-600	Master's Seminar	1
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)

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

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 AND BIOCHEMISTRY

M.V.Sc. (Veterinary Physiology)

Core Courses (19 credits)

VPY-600	Master's Seminar	1
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)
VPY-608	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)

Basic Supporting Courses (3 or 2 credits)

ABT-616	Animal Biotechnology	3(3-0-0)
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OR

VBC-604	Biochemistry of Biomolecules: Carbohydrates, Lipids and Membrane Structure	2(2-0-0)
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Optional Courses (8 or 9 credits)

8-9

Thesis Research (20 credits)

VPY-690	Master's Thesis Research	20
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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

Basic Supporting Courses (2 credits)

VBC-603	Application of Genomics and Proteomics in molecular biology	2(2-0-0)
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OR

VBC-712	Advances in Techniques in Biochemistry	2(0-0-2)
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Optional Courses (4 credits)

4

Minor Courses (10 credits)

10

Thesis Research (45 credits)

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

Disciplines of Minor

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

List of Post Graduate Courses in Veterinary Physiology of the Department

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	Neuro-muscular 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)

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)

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

Basic Supporting Courses (3 credits)

VAN-706	Theory and Applications of Electron Microscope	3(2-0-1)
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Optional Courses (5 credits)

5

Minor Courses (10 credits)

10

Thesis Research (45 credits)

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

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-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(1-0-1)
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(0-0-2)
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 and Molecular Biology	3(3-0-0)
ABT-604	Animal Cell Culture: Principles and 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 and Genetic Engineering	3(0-0-3)
ABT-616	Animal Biotechnology	3(3-0-0)

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 (10 credits)

ABT-690	Master's Thesis Research	10
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Total 50

List of Post Graduate Courses in Animal Biotechnology of the Department

ABT-600	Master's Seminar	1
ABT-601	Special Problem	1-2
ABT-602	Fundamentals of Cell and Molecular Biology	3(3-0-0)
ABT-603	Applied Molecular Biology	3(2-0-1)
ABT-604	Animal Cell Culture: Principles and 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 and Genetic Engineering	3(0-0-3)
ABT-612	Biodiversity, Biosafety and Bioethics	2(2-0-0)
ABT-613	Molecular Forensics	3(2-0-1)
ABT-614	Industrial Biotechnology	3(2-0-1)
ABT-615	Probiotics and Feed Biotechnology	3(3-0-0)
ABT-616	Animal Biotechnology	3(3-0-0)
ABT-617	Basic and 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 AND EPIDEMIOLOGY

M.V.Sc. (Veterinary Public Health and Epidemiology)

Core Courses (16 credits)

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

Basic Supporting Courses (4 credits)

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

Optional/ Minor Courses (10 credits)

Thesis Research (20 credits)

VPE-690	Master's Thesis Research	20
Total		50

Ph.D. (Veterinary Public Health and Epidemiology)

Core Courses (14 credits)

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

Basic Supporting Courses (2 credits)

BBC-710	Advance Techniques in Biochemistry	2(0-0-2)
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Optional Courses (4 credits)

Minor Courses (10 credits)

Thesis Research (45 credits)

VPE-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 and Toxicology.

List of Post Graduate Courses of the Department

VPE-600	Master's Seminar	1
VPE-601	Special Problem	1
VPE-602	Bacterial and Rickettsial Agents of Public Health Significance	3(2-0-1)
VPE-603	Viral, Fungal and Parasitic Agents of Public Health Significance	3(2-0-1)
VPE-604	Zoonoses and Public Health	3(2-0-1)

VPE-605	Principles of Food Hygiene and Safety	3(2-0-1)
VPE-606	Food-Borne Infection and Intoxications	3(2-0-1)
VPE-607	Meat and Milk Hygiene	3(2-0-1)
VPE-608	Environmental Pollution and Safety	4(3-0-1)
VPE-609	Fish, Fish Products and Sea Food Hygiene	2(1-0-1)
VPE-610	Bioterrorism and Disaster Management	2(1-0-1)
VPE-611	Epidemiological Methods	3(2-0-1)
VPE-612	Theoretical and Applied Epidemiology	2(2-0-0)
VPE-613	Concepts of Disease Intervention and Eradication	2(2-0-0)
VPE-614	Elements of Veterinary Public Health	2(1-0-1)
VPE-690	Master's Thesis Research	20
VPE-701	Current Topics in Veterinary Public Health	3(2-0-1)
VPE-702	Emerging and Re-emerging Zoonoses	3(2-0-1)
VPE-703	Quality Control of Animal Food Products	3(2-0-1)
VPE-704	Occupational Health Hazards	3(2-0-1)
VPE-705	Disposal and Recycling of Waste	3(2-0-1)
VPE-706	Biohazards, Biosecurity and Disaster Management	2(2-0-0)
VPE-707	Food Plant Sanitation	3(2-0-1)
VPE-708	Advances in Environmental Pollution Control	3(2-0-1)
VPE-709	Epidemiology of Non-Infectious and Chronic Diseases	2(2-0-0)
VPE-710	Trends in Environmental and Disaster Epidemiology	2(2-0-0)
VPE-711	Ecology and Animal Health	2(2-0-0)
VPE-712	Concepts in Herd Health Management	2(2-0-0)
VPE-713	Modern Trends in Eradication and Prevention of Animal Diseases	2(2-0-0)
VPE-788	Doctoral Seminar-I	1
VPE-789	Doctoral Seminar-II	1
VPE-790	Ph.D. Thesis Research	45

15. VETERINARY SURGERY AND RADIOLOGY

M.V.Sc. Veterinary 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)

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)

VSR-690	Master's Thesis Research	20
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Total 50

Ph.D. Veterinary Surgery and 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 and Cardiovascular)	2(1-0-1)
VSR-788	Doctoral Seminar I	1
VSR-789	Doctoral Seminar II	1

Basic Supporting Courses (3 credits)

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

4

Minor Courses (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 and Cardiovascular)	2(1-0-1)
VSR-788	Doctoral Seminar I	1
VSR-789	Doctoral Seminar II	1
VSR-790	Ph.D. Thesis Research	45