

**University College Dublin**  
**An Coláiste Ollscoile Baile Átha Cliath**

---

**National University of Ireland, Dublin**  
**Ollscoil na hÉireann, Baile Átha Cliath**



# **Veterinary Medicine**

---

**Session 2005/06**



**From September 2005 all first year courses are modularised.**  
**Further information is available at [www.ucd.ie/horizons](http://www.ucd.ie/horizons)**

# Contents

<b>Degree of Bachelor of Veterinary Medicine (MVB).....</b>	<b>6</b>
<b>Examination Subjects MVB .....</b>	<b>8</b>
<b>Courses of Instruction for the Degree of MVB .....</b>	<b>9</b>
<b>Second Year .....</b>	<b>9</b>
VAN 2010 Veterinary Anatomy II (including Histology and Embryology) .....	9
AHP 2050 Animal Husbandry and Production.....	9
VPB 2020 Veterinary Physiology and Biochemistry II .....	10
VAN 2040 Applications and Integration (Problem Based Learning) .....	10
LACS 0000 Physical Examination and History Taking .....	10
<b>Third Year- Old Curriculum.....</b>	<b>11</b>
VMP 3010 Veterinary Microbiology .....	11
VMP 3020 Veterinary Parasitology .....	11
VPY 4090 Veterinary Pathology I.....	12
SACS 3050 Small Animal Clinical Studies I.....	13
LACS 3040 Large Animal Clinical Studies I.....	13
VSY 3070 Veterinary Surgery I.....	13
SACS 3060 Veterinary Pharmacology and Toxicology I.....	14
<b>Third Year- New Curriculum.....</b>	<b>14</b>
VMP 3100 Basic Veterinary Microbiology.....	14
VMP 3110 Basic Veterinary Parasitology and Immunology.....	14
VPY 3100 Basic Veterinary Pathology .....	15
VPB 3100 Pharmacology / Toxicology .....	15
VMP 3120 Population medicine.....	15
VAN 3100 Third veterinary medicine: Respiratory and Cardiovascular System .....	15
VAN 3110 Third veterinary medicine: Gastrointestinal System.....	16
<b>Fourth Year.....</b>	<b>16</b>
LACS 4080 Large Animal Clinical Studies II.....	16
SACS 4050 Small Animal Clinical Studies II.....	16
SACS 0000 Veterinary Pharmacology and Toxicology II .....	17
VMP 4040 Veterinary Infectious Diseases.....	17
VSY 4060 Veterinary Surgery II.....	17
LACS 4070 Veterinary Public Health and Food Hygiene.....	17
VPY 4090 Veterinary Pathology II.....	18
<b>Fifth Year.....</b>	<b>18</b>
VSY 5060 Veterinary Surgery, Diagnostic Imaging and Anaesthesia .....	18
LACS 5050 Large Animal Clinical Studies.....	19
SACS 5070 Small Animal Clinical Studies .....	19
Electives .....	19
<b>Postgraduate Degrees .....</b>	<b>20</b>

---

<b>Postgraduate Study and Research.....</b>	<b>21</b>
Application Procedure .....	21
<b><i>Degree of Master of Animal Science (MAnSc) .....</i></b>	<b>21</b>
<b><i>Degree of Master of Science (MSc).....</i></b>	<b>22</b>
<b><i>Degree of Master of Veterinary Medicine (MVM).....</i></b>	<b>22</b>
<b><i>Degree of Doctor of Philosophy (PhD) .....</i></b>	<b>22</b>
<b>Undergraduate Diploma.....</b>	<b>23</b>
<b><i>Diploma in Veterinary Nursing (VN) .....</i></b>	<b>23</b>

## **Degree of Bachelor of Veterinary Medicine (MVB)**

### **General Information**

- 1 This degree enables the holder to be registered on the Register of the Veterinary Council of Ireland. Only persons so registered are entitled to practise as veterinary surgeons in the Republic of Ireland. Holders of this degree, provided they are EU nationals, are also, under the EU Directives, entitled to register and practise in the United Kingdom and in all other EU countries.
- 2 The programme of study for the degree extends over a period of five years. Courses are taken at the College of Life Sciences, University College Dublin, Belfield; and at the University farm at Lyons Estate, Newcastle, Co. Dublin.
- 3 The number of new entrants to the First Veterinary Medicine Year will be limited. As the number of applicants far exceeds the number of places available, places are offered strictly on the basis of academic achievement.
- 4 Students intending to proceed to this degree must comply with the regulations regarding entry to the University.
- 5 Students are required to become proficient in the handling and management of a variety of animal species and are allocated an appropriate programme of farm and companion animal experience up to a maximum of ten weeks, following interview. This experience should be obtained between the Christmas vacation of the first veterinary year and the end of the Easter break of the second veterinary year. Students are designated a staff supervisor who approves the farm or animal facilities proposed. The completion of this requirement to the satisfaction of the student's supervisor is a prerequisite for passing the Animal Husbandry and Production examination.
- 6 Students are required to have passed the University Examinations in full before being permitted to proceed to the courses of the following year. The University Examinations will be held in the Summer and Supplemental Examinations will be held in the Autumn for those students who fail in the Summer and for those students who have special permission from the President. Students who fail a Supplemental Examination will be interviewed by the Programme Student Progress Committee.
- 7 Each University Examination must be passed within two years of the date of entry to the course for that examination.
- 8 In special circumstances, i.e. on the grounds of ill health or for some other grave reason, the College may recommend the extension of the one-year rule and of the two-year rule.
- 9 Students who do not pass one or more subjects of the University Examinations may be required to re-attend courses before being permitted to present for the examination in the following Summer.
- 10 Students who fail the Final Veterinary Examination in the summer may be required to attend the University Veterinary Hospital prior to taking that examination in the Autumn of that year.

- 11 (i) During the third, fourth and fifth years of the course, students are required to complete a minimum period of 24 weeks of practical extra-mural experience. This experience is to be spread over the three years as follows:
- |                                                      |                                                |
|------------------------------------------------------|------------------------------------------------|
| Third year (Christmas, Easter and Summer vacations)  | 8-10 weeks suggested (clinical)                |
| Fourth year (Christmas, Easter and Summer vacations) | 10-12 weeks (clinical)<br>2 weeks (meat plant) |
| Final year (Christmas and Easter vacations)          | 2-4 weeks (clinical)                           |
- (ii) Students are assigned to a Clinical Tutor in third year. The 24 clinical weeks\* to be spent with practising veterinary surgeons should include a minimum of:
- 2 weeks equine practice
  - 4 weeks small animal practice
  - 6 weeks farm animal or mixed practice.
- (iii) The remainder of the time can be spent in practices, hospitals, laboratories, District Veterinary Offices (DVO), etc. selected by the individual student and approved in advance by the College.
- (iv) Each student will spend two full weeks in an approved meat plant and one full week in a PDSA Centre.
- (v) Holders of Training Scholarships will be allowed credit for up to nine weeks of practical extra-mural experience for time spent at an approved centre.
- (vi) Up to 6 weeks may be spent overseas (up to 15 weeks with the approval of the Chair of the Clinical Division).
- (vii) Certification of Attendance:  
For each placement a progress sheet (Form PS/100) must be signed by the senior supervising veterinary surgeon certifying that a specified period of study has been completed and submitted to the Programme Office as soon as possible after the end of the placement.
- 12 Students are required to attend their practicals and clinics. Failure to do so without satisfactory explanation to the Head of School will be notified to the Registrar. A student whose attendance, after formal warning by the Registrar, continues to be unsatisfactory, may be debarred by the Academic Council from presenting for examination.

---

\* A week is between 5 and 7 days, dependent on the normal working week of the practice/establishment.

**Examination Subjects MVB**

**ECTS Credits**

**Second University Examination in Veterinary Medicine**

VAN 2010	Veterinary Anatomy II (including Histology and Embryology)	18
AHP 2050	Animal Husbandry and Production	18
VPB 2020	Veterinary Physiology and Biochemistry II	18
VAN 2040	Applications and Integration (Problem Based Learning)	6

**Third University Examination in Veterinary Medicine**

**Old Curriculum**

VMP 3010	Veterinary Microbiology	10
VMP 3020	Veterinary Parasitology	10
SACS 3050	Small Animal Clinical Studies I	10
LACS 3040	Large Animal Clinical Studies I	10
VSY 3070	Veterinary Surgery I	10
SACS 3060	Veterinary Pharmacology and Toxicology I	10

**Third University Examination in Veterinary Medicine**

**New Curriculum**

VMP 3100	Basic Veterinary Microbiology	10
VMP 3110	Basic Veterinary Parasitology	10
VPY 3100	Basic Veterinary Pathology	10
VPB 3100	Veterinary Pharmacology / Toxicology	5
VMP 3120	Population medicine III	5
VAN 3100	Third veterinary medicine: Respiratory and Cardiovascular System	10
VAN 3110	Third veterinary medicine: Gastrointestinal System	10

**Fourth University Examination in Veterinary Medicine**

LACS 4080	Large Animal Clinical Studies II	10
SACS 4050	Small Animal Clinical Studies II	10
VMP 4040	Veterinary Infectious Diseases	10
VPY 4090	Veterinary Pathology	10
VSY 4060	Veterinary Surgery II	10
LACS 4070	Veterinary Public Health and Food Hygiene	10

**MVB Degree Examination**

VMRD 5000	Veterinary Medicine	60
-----------	---------------------	----



---

**Courses of Instruction for the Degree of MVB**

---

**Second Year**

*Year Coordinator: Dr Deirdre Campion*

---

**VAN 2010**

**Veterinary Anatomy II (including Histology and Embryology)**

*(Course Coordinator: Dr Michael Dore)*

The second year course in veterinary anatomy completes the regional approach to the study of comparative anatomy in domestic animals begun in first year. The comparative anatomy of the head is covered including its overall development and the development of particular structures within the head. The histology of these structures is also studied. This is followed by a course on the functional anatomy of the limbs with particular emphasis on athletic species. The second half of the second semester is devoted to courses on radiographic anatomy and imaging, and the anatomy of exotic animals. The latter is presented in a self-learning format with students carrying out projects under supervision, and exchanging information.

---

**AHP 2050**

**Animal Husbandry and Production**

*(Course Coordinator: Mr Vivian Gath)*

This course consists of lectures, tutorials, laboratory and companion animal practical classes given at Belfield and farm animal practical classes which take place at the University Research Farm at Lyons. The aim of the course is to cover the basic components of animal husbandry and production and give the students current practical knowledge and recommendations on how to breed, house and manage farm and companion animals. In formal lectures and tutorials emphasis is placed on understanding the principals of genetics, nutrition, behaviour, reproduction, welfare and practical aspects of the husbandry of farm and companion animals. Alternative farming systems are also covered, as are economics and welfare implications of the management of all species. Laboratory sessions deal with the use of modern diagnostic techniques in genetics, nutrition, reproduction and dairy technology to help solve practical problems at farm level. Animal practical classes involve identification of horses, determination of reproductive status of farm animals, husbandry factors contributing to mastitis and investigating the behaviour, care and welfare of farm and companion animals. Tutorials are focused on assessing animal performance and health. Visits are made to specific farms to help the student evaluate the efficiency of management, determine their strengths and weaknesses, and make practical recommendations on how to improve efficiency.

---

**Veterinary Physiology and Biochemistry II**

---

**(Course Coordinator: Dr Deirdre Campion)**

The course will consist of four lectures per week in the first semester and three per week in the second semester. Practicals include laboratory work, computer-aided learning, study group activity and tutorials for one period per week throughout the year.

The basic material given during veterinary physiology and biochemistry I provides a foundation for veterinary physiology and biochemistry II. Students are expected to integrate their knowledge and understanding into their second and subsequent years. This course develops the systemic topics, which were introduced during the first year of the course. Pharmacology is introduced as part of this course, building on and complementing the student's physiological and biochemical knowledge.

---

**VAN 2040****Applications and Integration (Problem Based Learning)**

---

**(Course Coordinator: Dr Nola Leonard)**

This course is a continuation of the first year programme and uses clinical cases and problems on which students work in small groups.

---

**LACS 0000****Physical Examination and History Taking**

---

**(Course Coordinator: Professor Michael Monaghan)**

This short course will introduce students to the principles underpinning professional veterinary conduct, clinical diagnosis based on history taking and clinical examination, and the recording and use of the veterinary medical record. Students will engage in exercises to equip them to accurately obtain and record a patient history and to conduct and record physical examinations of dogs, cats, horses and cattle using a problem based veterinary medical recording system. Particular attention is paid to the physical examination and examination of the bovine reproductive tract in teaching sessions on the UCD Lyons Estate Farm. A module in client-communication skills forms an integral component of the course.

## **Third Year- Old Curriculum**

*Year Coordinator: Dr Nola Leonard*

**VMP 3010**

### **Veterinary Microbiology**

**(Course Coordinator: Dr Nola Leonard)**

The course deals with micro-organisms pathogenic for animals, the diseases they produce and their public health significance. The course comprises lectures, tutorials, problem based learning sessions and practical classes. In the first semester, the lecture course covers the following topics:

- General principles of veterinary bacteriology, mycology and virology.
- Introduction to the infectious agents which cause disease in animals including bacteria, fungi, viruses and prions.
- For each infectious agent of veterinary importance, an overview is given of the characteristics of the organism, taxonomy, major epidemiological and pathogenic features, diagnosis and control.
- Important exotic diseases.
- Disease control including control of exotic diseases and important aspects of disinfection.

Student carry out practical procedures relevant to veterinary microbiology including:

- Bacteriology: Microscopy, culture, use of biochemical tests for identification, sterilization and disinfection, antibiotic susceptibility testing.
- Mycology: microscopy, culture, identification.
- Virology: tissue culture, growth of viruses, egg inoculation, haemagglutination, immunofluorescence.

In the second semester the course deals with infectious agents, which cause diseases of the haemolymphatic, cardiovascular, respiratory and central nervous systems, and of the skin and mammary gland. Emphasis is placed on the relationship between pathogenic mechanisms and clinical signs of disease, epidemiology, diagnosis and control of the agents relevant to each system.

**VMP 3020**

### **Veterinary Parasitology**

**(Course Coordinator: Professor Grace Mulcahy)**

The aim of the course is to enable students to acquire an understanding of parasitic diseases of animals and their public health significance. Lectures, seminars and tutorials over two semesters deal with diseases caused by helminths, arthropods and protozoa.

- The epidemiology, together with pathogenesis, economic importance, diagnosis and control of parasitic diseases are presented.
- In practical classes, students carry out routine laboratory diagnostic techniques and learn to recognize parasites of clinical importance.

- In tutorials, small groups of students are encouraged to consider contemporary problems in parasitology and to discuss them in an independent and critical manner.
- Individual students are assigned a project on which they make a presentation to the seminar group.

In the second semester the course deals with the infectious agents which cause diseases of the haemopoietic, cardiovascular, respiratory and central nervous systems, and of the skin and mammary gland. Emphasis is placed on the relationship between pathogenic mechanisms and clinical signs of disease, epidemiology, diagnosis and control of the agents relevant to each system.

---

**VPY 4090****Veterinary Pathology I**

**(Course Coordinator: Dr Joseph Cassidy)**

This course encompasses general pathology in companion and farm animals. Lectures are supplemented by practical classes and demonstrations in gross, microscopic and clinical pathology. The course is designed to give the student a thorough understanding of disease mechanisms.

This course consists of lectures and tutorials in medicine of the different body systems with emphasis on pathophysiology, clinical signs of organ dysfunction, diagnostic methods, diagnosis and principles of treatment of diseases of companion animals (dogs, cats, birds and others).

An integrated course in systemic and clinical pathology is given over the two semesters of the third year. Lectures and laboratory practicals are supplemented by tutorials and demonstrations. Morphological and pathophysiological aspects of disease are related to clinical findings. The course is closely co-ordinated with the diagnostic service provided by the School of Agriculture, Food & Veterinary Medicine.

Practical instruction in laboratory medicine demonstrates clinical laboratory techniques applied to specimens submitted from animal patients. Results are interpreted and discussed.

In the second semester the course deals with the pathology of diseases of the haemopoietic, cardiovascular, respiratory and central nervous systems, the skin and the mammary gland.

**Small Animal Clinical Studies I**

---

**(Course Coordinator: Mr Ruaidhri Breathnach)**

This course consists of lectures and tutorials in medicine of the different body systems with emphasis on pathophysiology, clinical signs of organ dysfunction, diagnostic methods, diagnosis and principles of treatment of diseases of companion animals (dogs, cats, birds and others).

Body systems/topics covered include:

- Diseases of the haemopoietic system
- Diseases of the cardiovascular system
- Diseases of the respiratory system
- Diseases of the central nervous system
- Diseases of the skin and mammary gland.

**Large Animal Clinical Studies I**

---

**(Course Coordinator: Dr Kevin Dodd)**

The course in large animal clinical studies given in the third year consists of lectures, tutorials and practical classes on: (i) clinical methodology, hygiene and safety, (ii) veterinary epidemiology, (iii) clinical medicine including management of clinical cases.

Body systems/topics covered include:

- Diseases of the haemopoietic system
- Diseases of the cardiovascular system
- Diseases of the respiratory system
- Diseases of the central nervous system
- Diseases of the skin and mammary gland
- Toxicology
- Metabolic diseases

**Veterinary Surgery I**

---

**(Course Coordinator: Ms Hester McAllister)**

Lectures are given in the principles of surgery, introduction to diagnostic imaging and elements of systematic surgery in small and large animals. There is a series of practical classes in aseptic surgical technique.

Body systems/topics covered include:

- Diseases of the cardiovascular system
- Diseases of the respiratory system

**Veterinary Pharmacology and Toxicology I**

---

**(Course Coordinator: Dr Thomas Barragry)**

This applied course presents aspects of the drug sciences most relevant to current veterinary needs. The course includes introductory lectures on: anthelmintics, insecticides, antibiotics and antibacterial drugs, antibiotic resistance, corticosteroids, nonsteroidal anti-inflammatory agents, drug residues and regulatory issues relating to drugs and residues. Lectures on drugs used for treatment of diseases of the following body systems are delivered and are complementary to body system lectures in other Third Year subjects. These body systems and subjects are the cardiovascular, respiratory, skin and mammary gland and therapeutic toxicology.

**Third Year- New Curriculum****Year Coordinator: Dr Nola Leonard****VMP 3100****Basic Veterinary Microbiology**

---

**(Course Coordinator: Dr Nola Leonard)**

This course is conducted during semester 1. The course deals with micro-organisms pathogenic for animals, the diseases they produce and their public health significance. The course comprises lectures, tutorials, problem-based learning sessions and practical classes. The course covers the general principles of veterinary bacteriology, mycology and virology, followed by an introduction to the infectious agents which cause disease in animals including bacteria, fungi, viruses and prions. For each infectious agent of veterinary importance, an overview is given of the characteristics of the organism, taxonomy, major epidemiological and pathogenic features, diagnosis and control. Students are taught the principles of disease control, including control of exotic diseases and important aspects of disinfection.

Students carry out practical procedures relevant to veterinary microbiology including basic laboratory techniques relevant to bacteriology, virology and mycology.

**VMP 3110****Basic Veterinary Parasitology and Immunology**

---

**(Course co-ordinator: Professor Grace Mulcahy)**

This course is conducted during semester 1. The aim of the course is to enable students to acquire an understanding of parasitic diseases of animals and their public health significance. The epidemiology, together with pathogenesis, economic importance, diagnosis and control of parasitic diseases are presented. In tutorials, small groups of students are encouraged to consider contemporary problems in parasitology and to discuss them in an independent and critical manner. Individual students are assigned a project on which they make a presentation to the seminar group. In practical classes, students carry out routine laboratory diagnostic techniques and learn to recognize parasites of clinical importance. In addition, the general principles of immunology are presented, together with applied aspects relevant to veterinary medicine including serological tests and their interpretation and vaccination of domestic animals.

**Basic Veterinary Pathology**

**(Course co-ordinator: Dr Joseph Cassidy)**

This course is presented during semester 1 and covers the general aspects of the morphological and clinical pathology of companion and farm animals. Lectures are supplemented by practical classes and demonstrations in gross, microscopic and clinical pathology. The course is designed to introduce students to the terminology and concepts of pathology and pathophysiology and to provide them with a grounding in general disease mechanisms that underpins their subsequent study of systemic pathology.

Topics covered include: cell injury, disorders of circulation, inflammation, hypersensitivity, neoplasia, healing and repair.

Practical instruction within the module is closely linked with the diagnostic service provided by the of Veterinary Pathology. Students are instructed in morphological and clinical pathology diagnostic techniques through use of material submitted to the University Veterinary Hospital.

**Pharmacology / Toxicology**

**(Course co-ordinator: Dr Thomas Barragry)**

This applied course in veterinary clinical pharmacology presents aspects of the drug sciences most relevant to current veterinary needs. The course includes lectures on: anthelmintics, ectoparasitocides, anthelmintic resistance, antibiotics and antibacterial drugs, antibiotic resistance, antibiotics in disease states, the anti-inflammatory drugs, corticosteroids, and nonsteroidal anti-inflammatory agents, drug residues and regulatory issues relating to drugs and residues. The course sets out the practical application and use of drugs and medicines in the clinical situation. Toxicology addresses the undesirable actions of drugs and other chemicals and describes the principles of treatment of poisoning. Regulatory medicine relates to drug discovery and screening, placing of drugs on the market and legal constraints relating to drugs and residues.

**Population medicine**

**(Course co-ordinator: Dr Kevin Dodd)**

This course comprises a lecture-based series, to provide a sound theoretical basis (principles, methods, application) for population medicine, and relevant

statistical principles. There will also be a series of problem-solving sessions using relevant case histories.

**Third veterinary medicine: Respiratory and Cardiovascular System**

**(Course co-ordinator: Dr Grainne McCarthy)**

This module consists of lectures, practical classes and tutorial/problem-based learning sessions on clinical conditions the cardiovascular, respiratory and haemolymphatic body systems. All aspects of clinical disease are taught including pathophysiology, clinical signs of organ dysfunction, diagnostic methods, epidemiology, diagnosis, and principles

of treatment and control. Contributory material from all disciplines including pathology, microbiology, parasitology, large and small animal medicine and pharmacology is given. In addition, lectures are included in the principles of surgery, introduction to diagnostic imaging and elements of systematic surgery of the thoracic cavity in small and large animals. There is a series of practical classes in aseptic surgical technique.

---

**VAN 3110****Third veterinary medicine: Gastrointestinal System**

(Course co-ordinator: *Professor Grace Mulcahy*)

This module consists of lectures, practical classes and tutorial/problem-based learning sessions on clinical conditions affecting the gastrointestinal system including associated organs such as the liver. All aspects of disease are taught including aetiology, pathogenesis, pathophysiology, clinical signs of organ dysfunction, diagnostic methods, epidemiology, diagnosis, and principles of treatment and control. Contributory material from all disciplines including pathology, microbiology, parasitology, large and small animal medicine, and pharmacology is given. In addition, lectures are included on the principles of surgery, introduction to diagnostic imaging and elements of systematic surgery of the abdominal cavity in small and large animals. There is a series of practical classes in aseptic surgical technique.

**Fourth Year**

*Year Coordinator: Dr Laurence Keenan*

---

**LACS 4080****Large Animal Clinical Studies II**

(Course Coordinator: *Professor Michael Monaghan*)

The fourth year lecture course in large animal clinical studies is aligned with the systems based approach dealing with epidemiology and medicine of gastrointestinal and urinary tracts, musculoskeletal, endocrine and reproductive systems. Special specific modules deal with veterinary involvement in the pig and poultry industries as well as ruminant herd/flock health programmes. The clinical reproduction course involves lectures on obstetrics and reproduction in all species. Students receive practical tuition in the University Veterinary Hospital and the Lyons Estate Research Farm.

---

**SACS 4050****Small Animal Clinical Studies II**

(Course Coordinator: *Mr Ruaidhri Breathnach*)

This course consists of lectures and tutorials in medicine of the different body systems with emphasis on pathophysiology, clinical signs of organ dysfunction, diagnostic methods, diagnosis and principles of treatment of diseases of companion animals (dogs, cats, rabbits, birds and other exotics). The body systems covered will include the gastrointestinal and urinary tracts, musculoskeletal and endocrine systems and special senses. Lectures are also given in clinical nutrition, infectious diseases and behaviour.



**Veterinary Pharmacology and Toxicology II**

(Course Coordinator: *Dr David Brayden*)

The pharmacology and toxicology course will consist of lectures and tutorials linked to selected body system topics. Prominent lecture groupings comprise anaesthetic drugs, pharmacology of behaviour, anti-cancer and anti-epileptic drugs, drugs of the urinary and intestinal tracts as well as drug use in production animals relating to public health. There will be an essay project in the 2<sup>nd</sup> semester which will be examined by an open book exam as part evidence required for formative assessment. Amongst the topics addressed in tutorials are neurotransmission at ganglia and effector organs, the drug regulatory process, veterinary autonomic pharmacology and practical applications of anaesthesia. This course will be the subject of questions on the 4<sup>th</sup> Year Veterinary Public Health, and Small and Large Animal Clinical Studies Papers and is also examinable in the Final Year Examination in Veterinary Medicine.

---

**VMP 4040****Veterinary Infectious Diseases**

(Course Coordinator: *Dr Bryan Markey*)

The course builds on the veterinary microbiology and veterinary parasitology courses presented in the third year. It deals with applied aspects of infectious diseases, in particular the relationship between pathogenic mechanisms and clinical signs of disease, epidemiology, diagnosis and control of parasitic, bacterial, mycotic, viral and prion diseases of domesticated animals. Lectures, practical classes, tutorials and problem based learning sessions over two semesters deal with veterinary public health and the infectious agents which cause diseases of the gastrointestinal tract, urogenital tract, musculoskeletal system and organs of special sense.

---

**VSY 4060****Veterinary Surgery II**

(Course Coordinators: *Dr Sue Rackard*)

This course will mainly consist of contributions in small and large animal surgery, anaesthesia and intensive care and diagnostic imaging to the body system courses. Other topics include surgery of the special senses, oncological surgery and surgery of exotic animals. Lectures are supplemented by practical classes in gastrointestinal surgery and operative surgery of equine, bovine and canine cadavers, seminars and tutorials in anaesthesia, diagnostic imaging, bandaging in large and small animals and lameness examination in horses. Students attend clinical case presentations by final year students. Students are on rota to attend to hospitalised animals at weekends during the term.

---

**LACS 4070****Veterinary Public Health and Food Hygiene**

(Course Coordinator: *Mr Micheál O'Mahony*)

Veterinary public health and food hygiene deals with the interaction of animal health and the wider environment, particular to human health. The course builds new skills and knowledge onto prior training in order to prepare students for roles in food safety assurance. The lecture course initially describes relevant microbiological, parasitological,

pharmaceutical and environmental hazards in alignment with related disciplines. It then details the approach of veterinary public health to managing these risks followed by consideration of veterinary input to safety assurance at pre-harvest, harvest and post-harvest cases of the production of foods of animal origin. Practical classes deal with organoleptic, microbiological and biochemical appraisal of food while tutorial classes provide in-depth instruction and practical exercises. Off-site visits to food production establishments also take place.

---

**VPY 4090****Veterinary Pathology II**

---

**(Course Coordinator: Dr Joseph Cassidy)**

A systems based course in morphological and clinical pathology is taught in an integrated fashion with related disciplines. The course spans three terms and consists of lectures, laboratory practicals, small group tutorials and demonstrations of post mortem material. Systems taught include the gastrointestinal, urinary, reproductive, musculoskeletal, endocrine and the special senses. Morphological and pathophysiological aspects of disease are related to clinical findings. Teaching material is generated by the diagnostic service provided to the University Veterinary Hospital and to external veterinary practices.

**Fifth Year****Year Coordinator: Ms Hester McAllister**

Final year is essentially lecture-free with the provision of a limited number of lectures pertaining to ethics, professionalism, practice management and current legislation. The course in final year is dedicated primarily to the development of clinical proficiency and the application of knowledge in a hospital or field environment. All students in final year will complete 21.5 weeks of core rotations plus a 4-week elective period. The core rotations are provided in Veterinary Surgery (9 weeks), Small Animal Clinical Studies (5 weeks), and Large Animal Clinical Studies (5.5 weeks). A rotation in Clinical Pathology is provided (1 week). In addition, students are rostered for one week to provide emergency cover 'out of hours' at the University Veterinary Hospital. While all core rotations will run throughout the standard academic year, rotations in Small and Large Animal Surgery, Veterinary Anaesthesia and Diagnostic Imaging will be available from 30th May 2005.

---

**VSY 5060****Veterinary Surgery, Diagnostic Imaging and Anaesthesia**

---

**(Course Coordinator: Mr Mark Glyde )**

Core rotations are provided in Large Animal Surgery, Small Animal Surgery, Diagnostic Imaging and Anaesthesia. These rotations are available to students from 30th May 2005. Students are rostered in small groups for case-based learning in the University Veterinary Hospital. A surgical skills programme is provided in the first semester. This includes structured anatomical reviews and cadaver surgery.

**Large Animal Clinical Studies**

---

**(Course Coordinator: Dr Michael Doherty)**

The School of Agriculture, Food & Veterinary Medicine provides core rotations in Large Animal Medicine, Clinical Reproduction, and Population Medicine/Epidemiology. The teaching of clinical medicine takes place in the University Veterinary Hospital where emphasis is placed on the examination and treatment of the individual animal. The emphasis for the rest of the programme is placed on preventive medicine, herd health and field investigation of herd/flock problems. This is performed on herds participating in the Herd Health Unit Dairy Monitoring Programme while 'problem' herds are identified with the co-operation of local large animal veterinary practices.

**Small Animal Clinical Studies**

---

**(Course Coordinator: Dr Carmel Mooney)**

Students assigned to Small Animal Clinical studies are supervised in small groups in the University Veterinary Hospital where they have responsibility for the care and welfare of hospitalized medical patients.

---

**Electives**

The College offers a number of electives each year. Subjects offered include Small Animal Orthopaedics, Anaesthesia, Applied Animal Behaviour/Welfare, Applied Dairy Cow Nutrition, Reproductive Technologies, Molecular Diagnostics as well as research electives in Anatomy, Physiology, Pharmacology and Parasitology. The electives offered within the College of Life Sciences may vary from year to year and students will be informed in advance of those available in any given academic year. Alternatively, students may choose to spend additional time in core rotations or an elective may be undertaken outside the College, at another approved University, at an outside laboratory or research institute or by attaining a vacation scholarship. The student's Clinical EMS Tutor must first approve electives undertaken outside the College. Students may undertake their elective at anytime from 30 May 2005 to 28 April 2006.

## **Postgraduate Degrees**

**Degree of Master of Animal Science**

**Degree of Master of Science**

**Degree of Master of Veterinary Medicine**

**Degree of Doctor of Philosophy**

## Postgraduate Study and Research

Candidates for the degrees of MAnSc, MSc, MVM, PhD shall fulfil the University regulations and requirements regarding these degrees.

### Application Procedure

The application of a candidate shall be submitted for approval, through the College Principal, to the Life Sciences, by the Professor or full-time statutory academic staff member with the approval of the relevant Professor, under whose direction the student is to work.

The application shall be submitted in writing to the College Principal and shall be circulated to the Research Committee prior to a meeting of the College at which the application is presented for acceptance. The application shall provide information regarding:

- (a) The candidate's academic qualifications and fitness to undertake postgraduate studies;
- (b) The proposed research project and course of study;
- (c) The availability of facilities for the proposed research;
- (d) The name(s) of the supervisor(s).

Candidates from outside Ireland and Great Britain will be required to provide evidence of a satisfactory standard in English.

The names of the proposed extern examiners shall be submitted in writing to the College Principal and shall be circulated, in advance, to the College prior to the meeting at which the names are presented.

## Degree of Master of Animal Science (MAnSc)

### Admission Requirements

A candidate for the MAnSc degree, in the College of Life Sciences, would normally be a holder of a primary degree with First or Second Class Honours in a subject of relevance to veterinary medicine and shall present such evidence in this regard as will satisfy the College.

### Course Regulations

Candidates shall carry on research for a minimum period of three terms and shall take such courses as may be prescribed by the College. Nine terms are allowed in which to complete the degree from the date of acceptance. Candidates who have not completed the degree within that period must re-apply to the College. Candidates shall be required to take an oral examination on the subject matter of their thesis unless exempted by the examiners.

## **Degree of Master of Science (MSc)**

### **Admission Requirements**

A candidate for the MSc degree must have at least a Second Class Honours primary degree or equivalent.

### **Course Regulations**

The degree of Master of Science may be awarded by thesis. Candidates shall carry out research for a minimum period of three terms. Nine terms are allowed in which to complete the degree from the date of acceptance. Candidates may be required to pass an examination on the subject matter of the thesis if the examiners so decide.

## **Degree of Master of Veterinary Medicine (MVM)**

### **Admission Requirements**

Holders of a degree in veterinary medicine, registerable with the Veterinary Council, shall be eligible to obtain the Degree of Master of Veterinary Medicine (MVM). The College may, at its discretion, recommend that the holder of a degree in Veterinary Medicine, not registerable with the Veterinary Council, be deemed eligible to obtain the Degree of MVM.

### **Course Regulations**

Candidates for the MVM degree shall carry on research for a minimum period of three terms. Nine terms are allowed in which to complete the degree from the date of acceptance. Candidates who have not completed the degree within that period must re-apply to the College. Candidates shall be required to take an oral examination on the subject matter of their thesis unless exempted by the examiners.

## **Degree of Doctor of Philosophy (PhD)**

A candidate for the PhD degree in the College of Life Sciences shall possess a degree in veterinary medicine or other appropriate qualification and shall present such evidence in this regard as will satisfy the College.

Candidates shall carry on research for a minimum period of nine terms or six terms in the case of any candidate whose attainments, in the opinion of the College, justify such shorter course.

Candidates are allowed six years in which to complete the degree from the date of acceptance, and if they have not done so within that period, they must re-apply to the College.

Candidates shall be required to take an oral examination on the subject matter of their thesis unless exempted by the examiners.

## Undergraduate Diploma

### Diploma in Veterinary Nursing (VN)

**Director of Veterinary Nursing:** Mrs Lynne Hughes

**Course Tutors:** Mrs Eimear De Souza, Ms Aoife Batt

**Course Administrator:** Ms Elaine McDonald

In response to the interest and support of the veterinary surgeons and veterinary nurses in Ireland, the College of Life Sciences, UCD has developed a three-year Diploma in Veterinary Nursing. The course is based on the "block-release" principle.

#### Entry Requirements

Passes in six recognised subjects at Leaving Certificate, at least two of which must be Grade C3 or better on a Higher level paper.

Subjects must include

- i) Irish
- ii) English (minimum C3 Leaving Certificate Ordinary Paper)
- iii) Mathematics (minimum C3 Leaving Certificate Ordinary Paper)
- iv) Laboratory Science or Home Economics (Social and Scientific)  
(minimum C3 Leaving Certificate Higher Paper)
- v) Two other recognised subjects.

#### 1.2 Alternate Entry

Up to ten places per year will be available for persons who have completed alternative training and/or experience but who may not have secured all the Leaving Certificate entry requirements. This route to matriculation will be open for persons aged 23 or over on the 1st January prior to entry.

#### 1.3 Employment

Students must have secured a minimum of twenty hours per week paid continuous employment in a UCD registered veterinary practice before application and acceptance into the course. Employment must be commenced no later than the date of the student's own registration with UCD.

#### 1.4 Enquiries and applications for entry

Enquiries regarding practice registration and entry into the Diploma in Veterinary Nursing should be made to: Ms Elaine McDonald, Veterinary Nursing Course Administrator, School of Agriculture, Food and Veterinary Medicine, University College Dublin, Belfield, Dublin 4.

Further details and contact telephone number are available on the Veterinary Nursing webpage: <http://www.ucd.ie/vetnursing/>

Following receipt of a detailed information pack, all applications for entry to the course should be made to the Admissions Office, UCD.

In 2005-2006 there will be a total of 33 places.

### **Attendance at UCD**

Students are required to attend the College of Life Sciences for eight weeks per year, receiving an intensive course of lectures, practical classes and clinical rotations. Attendance is mandatory and any absences must be explained in writing to the Director of Veterinary Nursing. The University Veterinary Hospital caters for both large and small animals and the curriculum will incorporate nursing of small animals, farm animals, equine and exotic species.

#### **1.5 Formal Tuition by Year**

Each year, two periods of two weeks will be spent in full-time formal tuition. Further details of course outline and syllabus are available on the Veterinary Nursing webpage <http://www.ucd.ie/vetnursing/>.

##### *First Year*

Receptionist Duties

General Nursing (All Species)

Anatomy and Physiology (All Species)

Reproduction (All Species)

Medical Nursing, In-patient Care, Hospital Management (Small Animal)

First Aid (Small Animal)

Occupational Hazards, Health and Safety, Care of Equipment

##### *Second Year*

Medical Nursing, In-patient Care, Hospital Management (Small Animal)

First Aid (Small Animal)

Surgical Nursing, Anaesthesia and Theatre Techniques (Small Animal)

Exotic Species

Structure of the Profession, Legislation and Ethics

##### *Third Year*

Pharmacology and Pharmacy

Laboratory Work (Clinical Pathology, Microbiology and Parasitology)

Diagnostic Imaging

Large Animal Nursing (General, Medical, Surgical, Anaesthesia and Theatre Practice)

#### **1.6 Clinical Veterinary Nursing Rotations**

Each year, two periods of two weeks will be spent on clinical veterinary nursing rotations at the University Veterinary Hospital, UCD, Dublin 4.

One of the Third Year rotations is normally taken at another centre; all proposals require prior approval from the Course Tutor. An institution where the students will be working directly with animals would be suitable. It is suggested that students use



the elective rotation to make up time in a practice of a different type from their own training practice.

*First Year*

Rotation 1

- 1 week small animal medicine
- 1 week small animal surgery

Rotation 2

- 1 week large animal medicine
- 1 week large animal surgery

*Second Year*

Rotation 1

- 1 week small animal medicine
- 1 week small animal surgery

Rotation 2

- 1 week large animal medicine
- 1 week large animal surgery

*Third Year*

- 1 week diagnostic imaging
- 1 week laboratory work and examination preparation
- 2 week elective rotation (see above)

## **Assessment**

### **1.7 Formal Examinations**

Formal examinations take place at the end of each academic year. The examinations for each year reflect the content of the portfolio, rotation duties and the modules of the course to be studied in that year.

#### **General Regulations**

- Examinations will be held in Summer (Years 1 and 2: June, Year 3: May)
- Supplemental examinations will take place in Autumn (August) if required
- Pass standard is 50%
- All parts of the examinations must be passed before proceeding to the next year of the programme.
- The examination for each year of the programme should normally be passed within two years of entering that year.
- The Diploma may be awarded with distinction on an aggregate of 70% of the marks obtained over the three years of the course. A distinction will be awarded only when each examination is passed at the first attempt and when subjects are passed together.

### **1.8 Portfolio of Veterinary Nursing Experience**

Students must complete and pass a portfolio of their veterinary nursing experience, presenting required written work for assessment during the academic year (December/January) and at the end of the academic year (March/April). The Course Tutor gives instruction on completion of the portfolio to all students in Year 1.

### **1.9 Clinical Veterinary Nursing Rotations**

Students will be assessed on their performance by qualified veterinary or veterinary nursing staff in the University Veterinary Hospital and by the Course Tutors on completion of both written and oral case presentations.

### **1.10 Allocation of Marks**

	<b>ECTS Credits</b>
<b>First University Examination in Veterinary Nursing</b>	
<u>VNUR 1001 Veterinary Nursing Theory and Practice IA</u>	<u>12</u>
<u>VNUR 1002 Veterinary Nursing Theory and Practice IB</u>	<u>12</u>
<u>VNUR 1003 Veterinary Nursing Theory and Practice I</u>	<u>6</u>
<u>VNUR 1004 Portfolio of Veterinary Nursing Experience I</u>	<u>18</u>
<u>VNUR 1005 Clinical Veterinary Nursing Rotations I</u>	<u>12</u>
<b>Second University Examination in Veterinary Nursing</b>	
<u>VNUR 2001 Veterinary Nursing Theory and Practice IIA</u>	<u>12</u>
<u>VNUR 2002 Veterinary Nursing Theory and Practice IIB</u>	<u>12</u>
<u>VNUR 2003 Veterinary Nursing Theory and Practice II</u>	<u>6</u>
<u>VNUR 2004 Portfolio of Veterinary Nursing Experience II</u>	<u>18</u>
<u>VNUR 2005 Clinical Veterinary Nursing Rotations II</u>	<u>12</u>
<b>Third University Examination in Veterinary Nursing</b>	
<u>VNUR 3001 Veterinary Nursing Theory and Practice IIIA</u>	<u>12</u>
<u>VNUR 3002 Veterinary Nursing Theory and Practice IIIB</u>	<u>12</u>
<u>VNUR 3003 Veterinary Nursing Theory and Practice III</u>	<u>6</u>
<u>VNUR 3004 Portfolio of Veterinary Nursing Experience III</u>	<u>18</u>
<u>VNUR 3005 Clinical Veterinary Nursing Rotations III</u>	<u>12</u>

### **Additional Requirements**

#### **1.11 Checklist of Practical Tasks**

A checklist of practical tasks is issued to students. Each student must carry out all of these tasks and have these procedures certified by a veterinary surgeon or qualified veterinary nurse who was present at the time when the task was performed. No marks are awarded for the checklist of practical tasks since it is simply a record of procedures that have been carried out. The checklist of practical tasks must be submitted annually for inspection (Years 1, 2 and 3: May). Failure to receive the checklist in the Programme Office by the due date or to complete the majority of the tasks, without sufficient cause may mean the student will not be permitted to sit the end-of-year examinations.

#### **1.12 Record of Employment**

Students need to work in veterinary practice to obtain appropriate learning experience. The student must secure paid employment of at least 20 hours per week in a UCD-registered practice. Over the three-year period of the course, the student must complete a total of 2000 hours of paid employment in a UCD-registered practice, with a minimum of 500 hours in any academic year.

The student will need to have a Record of Employment card (provided by UCD) completed and signed by the practice principal, to prove that these hours have

been spent in paid employment in a registered practice in each academic year. Failure to submit the card to the Programme Office by the due date (Years 1 and 2: end of May, Year 3: end of April) or to achieve the required minimum number of hours required for each year, without appropriate cause may mean the student will not be permitted to sit the end-of-year examinations.

Only time spent in active employment is allowable for the Record of Employment. There is no allowance for the period spent in University Veterinary Hospital, annual leave from a veterinary practice or absences due to illness.

Please note: If the number of hours worked over the entire period averages greater than 48 hours per week, a maximum of 48 hours per week is allowable towards the record of employment.