ELIGIBILITY
1. The candidate must meet the eligibility prerequisites for Fellowship outlined in the Fellowship Candidate Handbook.

2. Membership of the College must be achieved prior to Fellowship examination.

3. Membership must be in Canine Medicine, Feline Medicine, Small Animal Medicine, Small Animal Surgery, Emergency Medicine and Critical Care, Equine Medicine or Equine Surgery.

OBJECTIVES
To demonstrate that the candidate has sufficient knowledge, training, experience, and accomplishment to meet the criteria for registration as specialist in Veterinary Ophthalmology.

LEARNING OUTCOMES
1. The candidate will have a detailed\(^1\) knowledge of:
   
   1.1. the aetiology, pathogenesis, pathophysiology, diagnosis, differential diagnosis and treatment of ophthalmic diseases in all domestic animal and major wildlife species

   1.2. the principles of ophthalmic pharmacology and therapeutics

\(^1\) Knowledge levels:

- **Detailed knowledge** — candidates must be able to demonstrate an in-depth knowledge of the topic including differing points of view and published literature. The highest level of knowledge.

- **Sound knowledge** — candidate must know all of the principles of the topic including some of the finer detail, and be able to identify areas where opinions may diverge. A middle level of knowledge.

- **Basic knowledge** — candidate must know the main points of the topic and the core literature.
1.3. ocular diagnostic procedures including gonioscopy, tonometry, cytology, ultrasonography, computerised tomography (CT scanning) and magnetic resonance imaging (MRI)

1.4. ocular techniques including medicine and surgery of the eye and neuro-ophthalmology

1.5. ocular embryology, ocular and comparative anatomy, ocular biochemistry, ocular physiology, optics and physiology of vision, ocular immunology

1.6. clinical microbiology and clinical pathology as they relate to diseases of the eye

1.7. ocular pathology and ocular histology and histopathology

1.8. the principles of comparative ophthalmic examination.

2. The candidate will have a sound knowledge of:

2.1. ophthalmology as a comparative science with particular reference to all domestic animals, major wildlife species, birds, fish and reptiles

2.2. eye diseases in exotic species, wildlife, laboratory animals, fish and reptiles

2.3. ocular manifestations of systemic diseases in animals

2.4. aspects of human eye research and clinical ophthalmology that have relevance to ophthalmology of domestic animal species

2.5. ophthalmic oncology.

3. The candidate will, with detailed\(^2\) expertise, be able to:

3.1. perform all specialist level ophthalmologic diagnostic and surgical procedures

3.2. design pre-operative, operative and post-operative management plans in clinical cases involving the eye and related organ systems

3.3. analyse complex ophthalmologic medical problems and make clinical judgements

3.4. collect, interpret and record clinical data including interpreting a range of diagnostic modalities (gonioscopy, tonometry, cytology, ultrasonography, computerised tomography (CT scanning) and magnetic resonance imaging (MRI) in complex ophthalmologic cases

3.5. communicate effectively with clients, referring veterinarians and peers

\(^2\) Skill levels:

**Detailed expertise** — the candidate must be able to perform the technique with a high degree of skill, and have extensive experience in its application. The highest level of proficiency.

**Sound expertise** — the candidate must be able to perform the technique with a moderate degree of skill, and have moderate experience in its application. A middle level of proficiency.

**Basic expertise** — the candidate must be able to perform the technique competently in uncomplicated circumstances.
3.6. integrate these skills to provide high-quality care for patients with the most efficient use of resources in a manner that is responsive to the owner’s needs and wishes

3.7. evaluate and incorporate new scientific information relevant to the practice of Veterinary Ophthalmology

3.8. advance knowledge in Veterinary Ophthalmology through clinical innovation, research and publication.

EXAMINATIONS

The Fellowship examination has four separate, autonomous components:

1. Written Paper 1 (Component 1)
   Basic Science Principles (three hours)

2. Written Paper 2 (Component 2)
   Clinical Practice and Applications (three hours)

3. Practical Examination (Component 3) (three hours)
   Ophthalmic Examination and Diagnostic Techniques
   Surgical Technique

4. Oral Examination (Component 4)
   Oral (two hours)

The written examination will comprise of two separate three-hour written papers taken on two consecutive days. There will be an additional 20 minutes perusal time for each paper, during which no writing on the examination paper is permitted. Each examination will consist of Section A and Section B. Section A, will have twenty (20) short answer questions, worth four (4) marks each, providing a total of 80 marks. Candidates should allow approximately 80 minutes to complete this section. Section B consists of ten (10) long answer questions worth 10 marks each. Candidates should allow approximately 100 minutes to complete this section. There is no choice of questions. Marks allocated to each question and to each subsection of questions will be clearly indicated on the written paper.

Written Paper 1: Basic Science and Principles
This paper is designed to test the candidate’s knowledge of the principles of Veterinary Ophthalmology as described in the Learning Outcomes listed earlier. Answers may cite specific examples where general principles apply, but should primarily address the theoretical basis underlying each example.
Written Paper 2: Clinical Practice and Applications
This paper is designed to (a) test the candidate’s ability to apply the principles of Veterinary Ophthalmology to particular cases/problems or tasks, and (b) test the candidate’s familiarity with the current practices and current issues that arise from activities within the discipline of Veterinary Ophthalmology.

Practical Examinations
These examinations further test the candidate’s achievement of the Learning Outcomes. The duration of the practical examination (Parts 1 and 2 combined) must be a minimum of one hour and a maximum of three hours. The combined practical will consist of twelve (12) questions in total, each worth ten (10) marks, providing a total of 120 marks.

• Practical Examination — Part 1: Ophthalmic Examination and Diagnostic Techniques (approximately one hour)
The candidate will be required to demonstrate and discuss ophthalmologic examination, observation and diagnostic skills pertaining to commonly encountered species. Methods of delivery of question material include radiograph, CT and MRI images; audiovisual presentation of images; verbal presentation of scenarios; written presentation of clinical material and the use of a whiteboard. The candidate may also be expected to critically examine and discuss the pathological changes in histological sections of ocular tissue.

• Practical Examination — Part 2: Surgical Technique (approximately one hour)
The candidate will be required to demonstrate and discuss preoperative ophthalmologic surgical preparation; surgical knowledge and techniques pertaining to the adnexa, eyelids, anterior and posterior segment; choice of suture materials; and postoperative management.

Oral Examination (duration of minimum one hour, maximum two hours)
The oral examination will consist principally of a digital image session and the candidate will be required to identify, assess and problem solve using the information presented. The images used will include but not be limited to clinical photographs of the eye of a patient, fundus photographs, gonio photographs, photographs of imaging techniques, special diagnostic techniques, slit lamp photographs, cytologic specimens and gross and microscopic pathology specimens. Questions typically include listing lesions or abnormalities, discussing a differential diagnosis list for the specific disease process, stating the most likely aetioloclogic diagnosis(es) and pathogenesis, listing morphologic diagnosis, listing appropriate therapy for the condition, or identifying species on the slide. Candidates will be presented with twelve (12) questions asked verbally in a face-to-face setting. The oral examination has a total of 120 marks with each question allocated 10 marks.
TRAINING PROGRAM

In addition to the requirements of the Fellowship Candidate Handbook, the Chapter imposes the following:

1. 144 weeks of Direct Supervised Training (DST), at least 25 hours a week, is required during a three-year, 156-week period.

2. The candidate is expected to attend relevant scientific meetings and conferences and attendance at an international veterinary ophthalmology conference is recommended. The credentials document must show documentary evidence that the candidate has prepared and presented at least one oral or poster presentation paper at a national or international ophthalmologic meeting or conference prior to examination.

3. Cases must be of the type seen in ophthalmology referral institutions which are considered to be specialist procedures. The candidate should attempt to gain as broad a range of experience as possible.

4. Case Minima

Case minima by category are only relevant for cases that require surgery. The candidate must be the primary surgeon for 25% of these cases. For example, if 40 eyelid surgeries are required the candidate must be the primary surgeon for at least 10 of these cases and assistant surgeon for no more than 30 of the cases.

Case minima for species are relevant for all cases seen, both medical and surgical. These must be supervised ophthalmic examinations or surgeries recorded individually. Thus, they may include herd examinations as long as individual animals are recorded separately in hospital records. It is expected however, in the species where herd examinations are performed e.g horses and cattle, that clinical cases will also constitute some part of the totals. Case minima refer to the period of the training program and must be met in order for credentials to be successful.

<table>
<thead>
<tr>
<th>Case Minima for Category</th>
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<tbody>
<tr>
<td>Orbital/globe surgery (includes enucleation, intrascleral prosthesis, orbitotomy, retinal detachment, intraocular tumour removal, laser surgery, glaucoma surgery)</td>
<td>30</td>
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</tbody>
</table>
Eyelid surgery  
(includes entropion, eyelid reconstruction [following trauma or tumour removal or eyelid agenesis], distichiasis, ectopic cilia)  

<table>
<thead>
<tr>
<th>Case Minima for Species</th>
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</thead>
<tbody>
<tr>
<td>Canine</td>
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<tr>
<td>Feline</td>
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<tr>
<td>Equine</td>
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<tr>
<td>Other large animal (incl bovine, ovine, caprine)</td>
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<tr>
<td>Exotics/birds/Zoo</td>
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</tbody>
</table>

Conjunctiva/TE  
(includes scrolled cartilage of the third eyelid, prolapse of the third eyelid gland, repair/reconstruction [trauma/tumour removal/eyelid agenesis], symblepharon)  

| Lens  
(include extracapsular lens removal, intracapsular lens removal, phacoemulsification, foreign body removal)  

<table>
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<tr>
<th>TRAINING IN RELATED DISCIPLINES</th>
</tr>
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<tbody>
<tr>
<td>Refer to the Fellowship Candidate Handbook, Section 2.4.2</td>
</tr>
</tbody>
</table>

Candidates for Fellowship in Veterinary Ophthalmology must spend eight of the 144 weeks supervised time in the Training in Related Disciplines (TRD). Five weeks must be as per the following:

- William Magrane Basic Science Course in Veterinary and Comparative Ophthalmology (40 hours, 1 week)
- small animal medicine (80 hours, 2 weeks)
- small animal or large animal surgery (80 hours, 2 weeks).
The other three weeks of TRD should be composed from any of the following disciplines:

- veterinary ocular histopathology training (40 hours, 1 week)
- veterinary diagnostic imaging (40 hours, 1 week)
- veterinary oncology (40 hours, 1 week)
- veterinary dermatology (40 hours, 1 week)
- veterinary anaesthesia and critical care (40 hours, 1 week)
- veterinary neurology (40 hours, 1 week)
- human ophthalmic clinical training (40 hours, 1 week)
- laboratory animals/ocular toxicology (40 hours, 1 week)
- feline medicine (40 hours, 1 week)
- aquatic, avian, zoo or wildlife medicine (40 hours, 1 week).

TRD must be undertaken with a registered specialist in that discipline or other person approved by the Training and Credentials Committee (TCC) (see Appendix 2).

**EXTERNSHIPS**

Refer to the *Fellowship Candidate Handbook*, Section 2.4.1

Candidates for Fellowship in Veterinary Ophthalmology must complete four weeks of Externship activity. This may be completed in two, two-week blocks or alternatively, one continuous four week externship. The candidate may be required to complete additional Externship(s), following assessment of the Training Program Document by the TCC.

**ACTIVITY LOG SUMMARY**

Candidates should refer to the *Fellowship Candidate Handbook*. The Activity Log Summary (ALS) should be kept in the format of Appendix 1. An electronic version of the template is available on the college website. This log records detailed case information which should be recorded on a daily basis throughout training.

The activity log summary should include medical AND surgical cases although only initial presentation of cases should be documented. Candidates are required to state whether a case was managed medically (Md) or surgically (Sx) and the system involved, by placing the correct abbreviation in the appropriate box. Obviously more than one system may be involved in an individual case and all systems should be indicated. Candidates should also indicate the working diagnosis (where possible).

The template for the ALS must be submitted for approval with the Training Program documents and completed throughout the training program. The cumulative ALS must be submitted with the annual supervisor report.
PUBLICATIONS
Refer to the Fellowship Candidate Handbook, Section 2.10

RECOMMENDED READING LIST
The candidate is expected to research the depth and breadth of the knowledge of the discipline. This list is intended to guide the candidate to some core references and source material. The list is not comprehensive and is not intended as an indicator of the content of the examination.

CORE TEXTS

Anatomy, Histology, Embryology

Duke-Elder S. The eye in evolution. System of ophthalmology, Vol. 1, Mosby, 1958 (especially important are chapters on exotic and domestic species).


Prince JH. Comparative anatomy of the eye. Charles C Thomas, 1956 (recommended review of the rabbit, pig, ruminant sections, other species covered in more contemporary text).


Physiology

Pharmacology


Pathology, Immunology


McGavin MD, Carlton WW, & Zachary JF. *Thomson’s special veterinary pathology*. Mosby, 2000 (chapter by Render only).


**Neuro-ophthalmology**


**Surgery**


**Clinical Ophthalmology**

ACVO Genetics Committee Text on Ocular Disease Suspected or Proven to be Inherited in Purebred Dogs 1999 (Fellowship candidates should familiarise themselves with this book, but not memorise all specific diseases)


Brooks. Ophthalmology for the Equine Practitioner, Teton New Media, 2002
Gilger. Equine Ophthalmology, Saunders, 2005
Martin. Ophthalmic Disease in Veterinary Medicine, Manson Publishing, 2005
Rubin, Atlas of Veterinary Ophthalmoscopy, Lea and Febiger, 1975, (though this text is out of print it is still available in most veterinary school libraries and is essential reading).

JOURNALS

Core Journals
Veterinary Clinics of North America (prior to 2001)
Equine Practice: Equine Ophthalmology (December 1992, vol. 8, no. 3)
Large Animal Practice: Large Animal Ophthalmology (November 1984, vol. 6 no. 3)
Small Animal Practice: Small Animal Ophthalmology (May 1990, vol. 20, no. 3)
Surgical Management of Ocular Disease (September 1997, vo. 27, no. 5)
Infectious Disease and the Eye (September 2000, vol. 30, no. 5)
ADDITIONAL REFERENCES

Journals

Note: articles from these veterinary journals should be reviewed for any situation or disease that involves ocular, periocular, or neuro-ophthalmic structures, or systemic conditions relevant to ocular disease. Some of these journals may be no longer published. It is recommended that the candidate be at least familiar with articles that have appeared in the last seven years.

American Journal of Veterinary Research

Australian Veterinary Journal

Clinical Techniques in Equine Practice

Clinical Techniques in Small Animal Practice

Compendium of Continuing Education for the Practising Veterinarian

Equine Veterinary Journal

Journal of Avian Medicine and Surgery

Journal of Small Animal Practice

Journal of the American Animal Hospital Association

Journal of the American Veterinary Medical Association

Journal of Veterinary Internal Medicine

New Zealand Veterinary Journal

Veterinary Clinics of North America — Equine, Exotic Animal, Food Animal and Small Animal Practice

Veterinary Medicine

Veterinary Ophthalmology

Veterinary Pathology

Veterinary Record

Veterinary Surgery

Other Resource Material

AAHA Self Study Courses in Ophthalmology Kerry Ketrin. The Retina Parts I and II

ACVO Histology Teaching Set
FURTHER READING

Journals

Note: Review of basic science and human clinical journals should be limited to those articles dealing with situations or diseases directly applicable to veterinary ophthalmology, or one where a common domestic animal is used as an animal model. Reviews of human clinical conditions or basic science articles unrelated to veterinary ophthalmology are not necessary for exam preparation.

Journals — Human Titles

British Journal of Ophthalmology

Current Opinion in Ophthalmology

Experimental Eye Research

Investigative Ophthalmology and Visual Science

Progress in Retinal and Eye Research

Survey of Ophthalmology

Vision Research

Journals — Veterinary titles

A copy of some of the classic papers in Veterinary Ophthalmology follows. This list has been revised in March 1999 by the American College of Veterinary Ophthalmologists


USEFUL JOURNAL AND REVIEW ARTICLES

This is intended as a useful guide to more recent publications, it is not a compulsory reading list.


Bjerkas, E., O.Breck, R. Waagbo (2006). The role of nutrition in cataract formation in farmed fish. CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources(1, No 033).


FURTHER INFORMATION

For further information contact the College Office

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written permission. Enquiries should be addressed to the Australian and New Zealand College of Veterinary
Scientists
APPENDIX 1
Ophthalmology Activity Log Summary (ALS)

Candidate: .................................................................
Address: .................................................................

<table>
<thead>
<tr>
<th>Date</th>
<th>Case Id</th>
<th>Species</th>
<th>Breed</th>
<th>Ancillary Diagnostics performed^</th>
<th>Diagnosis</th>
<th>Orbital / globe (Md/Sx)*</th>
<th>Eyelids (Md/Sx)*</th>
<th>Conjunctiva/TE (Md/Sx)*</th>
<th>Lacrimal (Md/Sx)*</th>
<th>Cornea / Sclera (Md/Sx)*</th>
<th>Uvea (Md/Sx)*</th>
<th>Anterior chamber (Md/Sx)*</th>
<th>Vitreous (Md/Sx)*</th>
<th>Lens (Md/Sx)*</th>
<th>Retina/ON (Md/Sx)*</th>
<th>Gaucoma (Md/Sx)*</th>
<th>Neuro-Ophtho (Md/Sx)*</th>
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^ Ancillary test include Gonioscopy / ERG / US / CT or MRI / C&S Cytology / FNA Bx / Histopathology
* indicates primary surgeon while procedure should also be listed
Md refers to medical management of Cases
Sx refers to surgical management of Cases

Candidate’s signature: ...........................................  Date: ............................................
Supervisor’s signature: ......................................  Date: ............................................
APPENDIX 2

Learning Outcomes for Training in Related Disciplines
Throughout the 144-week training program, the Fellowship candidate in Veterinary Ophthalmology must be exposed to and actively involved in training in several related disciplines. The Fellowship candidate is encouraged to develop a working relationship with one or more specialists in each discipline to facilitate regular discussion and interaction regarding case management. In addition, involvement and participation of a specialist in these disciplines in clinical rounds and seminars attended by the Fellowship candidate is encouraged, as is participation of the Fellowship candidate in relevant rounds and seminars specific to this discipline. The Fellowship candidate must ensure that this time is spent effectively in consolidating knowledge and skills and in covering aspects of this discipline that will not be addressed adequately during the remainder of their program. The Fellowship candidate is expected to be proactive in searching out opportunities, materials and expert tuition and in compiling and organizing relevant material for future reference.

Attendance at the William Magrane Basic Science Course in Veterinary and Comparative Ophthalmology
The William Magrane Basic Science Course will contribute to 40 hours (one week) of the candidate’s Training in Related Disciplines requirement. For course dates and registration details see www.acvo.org.

The purpose of course attendance is to assist the candidate in acquiring a detailed knowledge of ocular embryology, ocular and comparative anatomy, ocular biochemistry, ocular physiology, optics and physiology of vision, ocular immunology, ocular pathology and histopathology.

Training in the Related Discipline of Small Animal Medicine
The 80 hours (2 weeks) must be directly supervised by a Fellow of the ACVSc (Small Animal Medicine, Canine Medicine or Feline Medicine), or a Diplomate of the ECVIM or ACVIM, or exceptionally and with prior approval from the credentials committee, another recognised expert. The role of the supervisor is to provide guidance and training in internal medicine as it applies to veterinary ophthalmology patient.

Essential techniques/topics the candidate should gain practical experience with, include but are not limited to the following:

1. exposure to medical conditions with ocular manifestation of disease e.g. diabetes, renal disease, endocrine diseases, infectious diseases and medical conditions that may affect the patient during anaesthesia, surgery or recovery
2. the development of a broad view of veterinary medical patient evaluation and their ocular implications
3. the formulation of treatment plans that encompass the medical needs of veterinary patients
4. the indication for laboratory and other diagnostic tests and interpretation of their results e.g. blood pressure measurement, techniques and pitfalls
5. monitoring the patient’s response to treatment and modifying treatment as indicated.
Training in the Related Discipline of Small Animal or Large Animal Surgery
The 80 hours (2 weeks) must be directly supervised by a Fellow of the ACVSc (Small Animal or Large Animal Surgery), or a Diplomate of the ECVIM or ACVIM, or exceptionally- and with prior approval from the credentials committee- another recognised expert. The role of the supervisor is to provide guidance and training in surgery as it applies to veterinary ophthalmology patient.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

5. participation in small animal or large animal surgical cases involving the head and neck

6. an understanding of the underlying principles of surgery including, but not limited to: asepsis, haemostasis, tissue handling, wound healing, wound infection and antibiotic therapy

7. formulation of a treatment plan that encompasses the surgical and anaesthesia requirements of the patient

8. indications for and use of other diagnostic modalities e.g. MRI and CT and the interpretation of these results

9. monitoring the patient’s response to treatment and modifying treatment as indicated

10. evaluation of the patient during anaesthesia, surgery and recovery, and

11. biopsy techniques.

Training in the Related Discipline of Veterinary Histopathology
The 40 hours (1 week) of histopathology training must be directly supervised by a Fellow of the ACVSc, Diplomate of the ECVIM or ACVIM or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in ocular histopathology.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. normal comparative histological anatomy and embryology

2. ocular cytology

3. histopathological patterns of common ocular diseases e.g. conjunctivitis, keratitis, ulcerative keratitis, ocular trauma, uveitis, scleritis, inherited retinal diseases (PRA, CEA, retinal dysplasia), optic neuritis, glaucoma, cataractogenesis and common ocular tumours.

Training in the Related Discipline of Veterinary Diagnostic Imaging
The 40 hours (1 week) of veterinary diagnostic imaging must be directly supervised by a Fellow of the ACVSc (Diagnostic imaging), Diplomate of the ECVDI or ACVR, or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in diagnostic imaging as it applies to the veterinary ophthalmology patient.
Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. radiography including digital radiography of the head and neck
2. ocular ultrasonography
3. computed tomography (CT) of head and neck
4. magnetic resonance imaging (MRI) of the head and neck.

**Training in the Related Discipline of Veterinary Oncology**
The 40 hours (1 week) of veterinary oncology must be directly supervised by a Fellow of the ACVSc, Diplomate of the ECVIM or ACVIM or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in veterinary oncology as it applies the veterinary ophthalmology patient.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. aetiopathogenesis, epidemiology, pathology, diagnosis, treatment and management measures for common oncological diseases of small animal and large animal patients. This should include exposure to surgical principles generally, and specifically in relation to oncology
2. cytology and histopathology of neoplasia.

**Training in the Related Discipline of Veterinary Anaesthesia and Critical Care**
The 40 hours (1 week) of veterinary anaesthesia and critical care must be directly supervised by a Fellow of the ACVSc, Diplomate of the ECVIM or ACVIM or exceptionally - and with prior approval from the credentials committee - another recognised expert. **The role of the supervisor is to provide guidance and training in veterinary anaesthesia and critical care.**

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. Critical care:
   1.1. fluid and electrolyte disorders and their therapy
   1.2. nutrition and metabolism in surgical patients
   1.3. management of patients with special needs e.g. diabetic patients, animals affected by endocrine disease and small animals with kidney or liver disease
   1.4. cardiac failure and resuscitation
   1.5. monitoring the of the veterinary surgical patient.
2. Pain management:
   2.1. basic physiology of acute and chronic pain
2.2. recognition and monitoring of pain in surgical patients

2.3. prevention and control of pain: pre-emptive analgesia, post-operative analgesic techniques, management of acute (including post-operative) and chronic pain.

3. Anaesthesia:

3.1. pre-operative assessment and patient preparation: pre-anaesthetic evaluation and premedication

3.2. equipment used in general anaesthesia delivery and monitoring

3.3. drugs used for sedation/ tranquillization, analgesia, muscle relaxation and anaesthesia, and their application in small and large animal patients

3.4. neuromuscular blocking agents, their use and patient monitoring

3.5. application of analgesic techniques before, during and after a surgical procedure and knowledge of their influence on the course of anaesthesia

3.6. anaesthesia induction, maintenance and recovery techniques in small and large animal surgery patients

3.7. airway maintenance, oxygenation and ventilation, acute respiratory failure

3.8. special anaesthetic considerations: anaesthesia of the neonate, geriatric patient and veterinary patients with special needs eg. patients affected by endocrine disease, renal disease, cardiac disease and liver disease

3.9. standing sedation and general anaesthesia of horses and foals

3.10. monitoring during anaesthesia, effects on the respiratory and CV systems and support of these systems during anaesthesia

3.11. prevention and management of anaesthetic accidents and crises

3.12. local and regional anaesthesia techniques used in large and small animals.
Training in the Related Discipline of Veterinary Neurology
The 40 hours (1 week) of veterinary neurology must be directly supervised by a Fellow of the ACVSc, Diplomate of the ECVIM or ACVIM or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in neurology as it applies to the veterinary ophthalmology patient.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. neurological assessment of small and large animals with special emphasis on cranial nerve examination of veterinary patients
2. diagnostic investigation and management of neurological diseases in small animal patients
3. particular diseases of interest may include neuro-ophthalmic diseases e.g. Horner’s syndrome, neurological keratoconjunctivitis sicca (KCS), causes of anisocoria and nystagmus, central causes of vision loss, neoplastic or inflammatory CNS diseases and disorders of the autonomic nervous system.

Training in the Related Discipline of Human Ophthalmic clinical training
The 40 hours (1 week) of human ophthalmic clinical training must be directly supervised by a Fellow of the Royal Australian and New Zealand College of Ophthalmology (RANZCO) or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in human ophthalmology.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. the aetiology, pathogenesis, pathophysiology, diagnosis, differential diagnosis and treatment of ophthalmic diseases in humans
2. principles of ophthalmic pharmacology and therapeutics
3. ocular diagnostic procedures
4. optics and physiology of vision
5. principles of human ophthalmic surgery
6. aspects of human eye research and clinical ophthalmology that have relevance to ophthalmology of domestic animal species.
Training in the Related Discipline of Laboratory Animals/Ocular toxicology
The 40 hours (1 week) of laboratory animals/ocular toxicology must be directly supervised by a Fellow of the ACVSc, Diplomate of the ECVIM or ACVIM or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in ophthalmic laboratory animal/ocular toxicology studies.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. aspects of eye research and clinical ophthalmology relevant to veterinary clinical ophthalmic practice
2. observations of preclinical laboratory animal toxicology and pharmacology studies in the biotechnology, pharmaceutical and chemical industries
3. performance of ophthalmic examinations on laboratory animals and observe the effects of various toxicity studies on the eye.

Training in the Related Discipline of Aquatic, Avian, Zoo or Wildlife medicine
The 40 hours (1 week) of aquatic, avian, zoo or wildlife medicine must be directly supervised by a Fellow of the ACVSc, Diplomate of the ECVIM or ACVIM or exceptionally - and with prior approval from the credentials committee - another recognised expert. The role of the supervisor is to provide guidance and training in aquatic, avian, zoo or wildlife medicine.

Essential techniques/topics the candidate should gain practical experience with include but are not limited to the following:

1. understanding the handling, examination and medicating techniques related to the species being studied
2. gaining an understanding of the most important diseases affecting the species being studied
3. formulating of a differential diagnosis list for relevant conditions
4. formulating of a treatment plan
5. monitoring the response to treatment and modifying treatment as indicated
6. indications for laboratory and other diagnostic tests and interpretation of results.
Training in the Related Discipline of Veterinary Dermatology

The 40 hours (1 week) must be directly supervised by a Fellow of the ACVSc (Dermatology), or a Diplomate of the ECVD or ACVD, or exceptionally- and with prior approval from the credentials committee- another recognised expert. The role of the supervisor is to provide guidance and training in dermatology as it applies to veterinary ophthalmology patient.

Essential areas that should be covered include but are not limited to:

1. where possible the candidate should seek exposure to dermatologic conditions with ocular manifestation of disease. For example: parasitic, viral, bacterial, mycotic and allergic blepharitis, immune mediated blepharitis (pemphigus group, ocular-dermatologic syndrome, medical canthal ulcerative syndrome, discoid lupus, systemic lupus), inflammatory pseudotumours (histocytoses, nodular fascitis) and idiopathic facial dermatitis of brachycephalic cats

2. encourage a broad view of veterinary dermatology patient evaluation

3. indications for laboratory and other diagnostic tests, their evaluation and interpretation of results e.g. cytology, skin scrapping, microbial culture and sensitivity testing, histological assessment of tissues and skin allergy testing

4. formulation of a treatment plan that encompasses the medical needs of veterinary dermatology patients

5. monitoring the patient’s response to treatment and modifying treatment as indicated.