The programme will provide you with a thorough understanding of the anatomy, development and physiology of the eye and will cover the full spectrum of ocular diseases seen in the domestic species. The principles of inherited ocular disease, ocular pharmacology and therapeutics, ocular pathology and ocular surgery will be discussed.

### Get the most out of this programme and your CPD

<table>
<thead>
<tr>
<th>Extend your Clinical Knowledge and Skills</th>
<th>Achieve a General Practitioner Certificate (GPCert)</th>
<th>Achieve a Postgraduate Certificate (PgC)</th>
<th>Apply for Advanced Practitioner Status</th>
</tr>
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<tbody>
<tr>
<td>Want to advance your knowledge and skills in a specific area? Simply take one of the single or paired modules in your area of interest.</td>
<td>Complete the full one year programme (all modules) and achieve the GPCert and attain 40 academic credits at Masters Level 7.</td>
<td>Continue to a PgC (60 academic credits), which combines the GPCert clinical studies with reflective practice. The Advanced Practitioner Module is 20 academic credits at Masters Level 7 and delivered by Harper Adams University</td>
<td>After completing your Postgraduate Certificate you can apply for the RCVS Advanced Practitioner Status. Subject to meeting all of the other entry requirements set out by RCVS in the Applicant Guidance Notes.</td>
</tr>
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</table>
Taught Modules

01: Examination of the eye

- Use diagnostic ophthalmic instruments including focal illumination, the direct ophthalmoscope, slit lamp biomicroscope and indirect ophthalmoscope to perform a confident ocular examination
- Undertake tonometry
- Undertake gonioscopy
- Understand more advanced and specialist techniques available for ophthalmic diagnosis including radiography, electroretinography, ultrasound, CT and MRI scans
- Understand diagnostic cytology, microbiology and biopsy sampling and appreciate the applications of the different methods of investigation
- Describe a systematic approach to the investigation of ophthalmology cases including accurate record keeping

02: Anatomy and physiology of the eye, basic embryology and histology

- Understand basic ophthalmic embryology and post natal ocular development
- Describe comprehensively the anatomy of the eye
- Understand ocular physiology including the tear film, aqueous production, lens metabolism and retinal physiology
- Appreciate the normal and pathological appearance of histological samples including the significance of abnormalities detected
- Understand basic ocular immunology

03: Ocular therapeutics and pharmacology

- Understand the principles of medicating the eye
- Be familiar with topical and systemic drug administration
- Explain vehicles and preparations for ophthalmic drug administration
- Appreciate classes of drugs
- Choose the correct drug for common ophthalmic conditions

04: The orbit and globe, eyelids and nictitans membranes

- Describe the anatomy and clinical conditions involving the orbit, globe, eyelids and nictitans membranes (third eyelids)
- Understand the presenting signs of and differential diagnoses for congenital and acquired orbital disease
- Understand the effect of facial conformation on globe and eyelid position and its associated effects
- Appreciate breed predispositions and species differences
- Understand the aetiology of proptosis and its treatment options
- Appreciate the different types of entropion and ectropion and their impact on ocular health
- Understand the aetiology of nictitans membrane disorders

05: The conjunctiva and naso-lacrimal system: writing a case report

- Describe the anatomy of the conjunctiva and understand the aetiology of conjunctival disease and its treatment
- Describe the nasolacrimal system and abnormalities that can affect it
- Understand secretory and excretory components, normal lacrimation and the components of the pre-corneal tear film and how these relate to keratoconjunctivitis sicca
- Understand the problems associated with nasolacrimal drainage
- Appreciate the approach to writing a case report, including case selection, literature searches and accurate referencing
Ophthalmology
Clinical Programme

Taught Modules

06: The cornea, sclera and episclera
- Describe normal corneal anatomy, corneal healing and the factors which can affect it
- Understand how the cornea responds to insults
- Understand the different causes of corneal ulceration and its treatment
- Explain non ulcerative corneal disease
- Appreciate the anatomy of the episclera and sclera and understand the pathology which can affect these

07: The uveal tract and lens
- Recognise congenital and acquired defects involving the uveal tract and describe the presenting signs of anterior uveitis, posterior uveitis, panuveitis and the approach to diagnosis and treatment
- Approach non neurological abnormalities of the pupil
- Understand aqueous opacification
- Describe the anatomy and physiology of the normal lens
- Recognise lenticular disease and the range of congenital and acquired disease that can affect the lens and understand cataractogenesis
- Understand the approach to cataract surgery together with patient selection, aftercare and potential complications
- Appreciate primary and secondary lens luxation

08: Glaucoma and neuro-ophthalmology
- Describe the production and drainage of aqueous humour and the pathophysiology of the normotensive globe
- Define glaucoma and understand the different types of primary and secondary glaucoma and species differences
- Appreciate treatment options for glaucoma
- Describe a logical approach to the investigation of neuro-ophthalmic problems and the autonomic nerve supply
- Recognise normal and abnormal nystagmus
- Investigate and offer treatment options for blindness of central origin
- Understand disorders of ocular motility
- Understand the investigation of optic nerve disease

10: Ocular neoplasia and ocular manifestations of systemic disease
- Recognise primary and secondary ocular neoplasia and explain its management
- Discuss the ocular manifestations of systemic disease including infectious, metabolic, nutritional, toxic, immune mediated or vascular aetiologies
- Understand the work up for suspected systemic disease
- Appreciate treatment options for systemic disease in general practice

09: The retina, vitreous and optic nerve
- Understand the normal anatomy of the retina, species differences in retinal vascular patterns and the pathological changes which can occur and their manifestation
- Understand the process of chorioretinitis
- Appreciate both inherited and acquired retinopathies
- Understand the anatomy of the vitreous, congenital and acquired conditions and explain the different types of vitreal degeneration
11 & 12: 🏫 📚

**Ophthalmic surgery – practical techniques day 1 & day 2**

**Day one**
- Recognise commonly used ophthalmic instruments and understand their use
- Use loupes and understand operating microscopes for surgical magnification
- Select appropriate suture material and needle designs
- Discuss pre and post-operative care of surgical patients and appropriate anaesthetic regimes
- Understand the basic surgical principles as they pertain to ophthalmic surgery

**Day two**
- Perform common surgical techniques for treating disease of the orbit, globe, eyelids, third eyelid, conjunctiva and cornea
- Perform reconstructive eyelid surgery
- Understand and perform different methods for enucleation
- Understand the principles of intraocular surgery
- Explain the different conditions which affect different breeds of dog
- Clinically recognise congenital inherited conditions encountered such as collie eye anomaly, congenital cataract, retinal dystasia, goniodygenesis and persistent hyperplastic primary vitreous
- Clinically recognise non-congenital inherited conditions such as hereditary cataract, primary lens luxation, generalised progressive retinal atrophy and retinal pigment epithelial dystrophy
- Case based studies, delegates should be able to:
  - List differential diagnoses
  - Formulate investigation plans
  - Formulate treatment protocols for common ophthalmic problems

13: 📚

**Inherited ocular disease and case based discussion**
- Understand inherited ocular disease, the principles of genetics and modes of inheritance and pedigree data analysis
- Appreciate different methods of reducing such disease including eye testing schemes and genetic testing

14: 📚

**Comparative ophthalmology**
- Approach the ophthalmic examination of the rabbit, bird and reptile
- Have a basic understanding of the evolution of the eye
- Appreciate species differences in ocular anatomy
- Be familiar with common diseases seen in rabbits, birds and reptiles
- Discuss the role of various species in ocular toxicology
# Ophthalmology Clinical Programme

## Pricing

<table>
<thead>
<tr>
<th>Payment Options</th>
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<th>Initial Payment</th>
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<tr>
<td>GPCert Programme*</td>
<td>£6,281.40</td>
<td>£924.00</td>
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**In partnership with:**

ESVPS  
Harper Adams University

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**Payment terms & conditions**

1. A non-refundable initial payment of £924.00 is due on registration in order to secure the booking. This can be paid by BACS or credit card.
2. Initial payment to be made by BACS or credit card within 30 days of the initial payment in order to be eligible for the discounted rate, (for payment in full).
3. Direct debit plans are administered and collected on our behalf by Animal Healthcare Limited.
4. Please contact us for pricing relating to corporate veterinary groups and multiple discounts and pricing.
5. Individual and Paired Module Pricing shown above does not include the exam fees of Harper Adams University and ESVPS.
6. If paying by direct debit we must receive the first payment prior to the course commencing.

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*Exam fee is included.

Modules 11 & 12 due to their practical nature are £1,099.00 (+ VAT).

For those individuals continuing to PgC, the tuition fee for the Advanced Practitioner Module is £1,250 payable to Harper Adams University.