

## **Certificate in Advanced Veterinary Practice**

### **C-POU.2 Poultry Disease Diagnosis, Prevention and Treatment**

#### **Module Outline**



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## GUIDANCE FOR THIS MODULE

This module can be taken as a free-standing module, or as part of the Certificate in Advanced Veterinary Practice.

Candidates working towards the designated Certificate in Advanced Veterinary Practice (Poultry) will need to complete A-PKS.1 Professional Key Skills module, B-CKS.0 Clinical Key Skills, B-PAP.2 Production Animal Practice and the three C-POU modules. Upon completion of all the necessary modules, a further synoptic assessment will also be required.

## LEARNING OBJECTIVES

Candidates should have a sound grounding in the areas of practice listed below. They also need to develop the skills needed to create case studies that demonstrate the following competencies:

- The written communication skills required to present case studies:
- An ability to demonstrate their competence in observation, data collection, analysis, reasoning, decision-making and advice delivery in the area under discussion
- Reflective skills that enable them to understand the issues raised by the case and their practice more generally, what they learnt from it.

**At the end of the module, candidates should be able to demonstrate:**

- A knowledge (aetiology, pathogenesis, clinical presentation, epidemiology, treatment/prevention) of the common diseases affecting poultry (either clinically or sub-clinically), and an understanding of the economic importance of the disease to individual flocks and associated epidemiological groups.
- A clear understanding of how husbandry and management can influence these diseases.
- A thorough understanding of the diagnostic techniques available for determining or confirming a diagnosis, together with an understanding of the practical techniques involved, the limitations of the techniques and cost implications on the economics of production.

- A sound understanding of the immune response in birds, the impact and mechanism of immunosuppression and how the immune response may be manipulated by vaccination and other factors.
- An understanding of the basic components of a preventative healthcare plan and how to implement within both small and large scale poultry production systems.
- Sound knowledge of biosecurity and hygiene including types of disinfectants allowed under Poultry Orders legislation.
- An understanding of the available poultry vaccines in the UK, both live and inactivated, their mode of action immunologically and how these products can be used as a component of a cost-effective preventative health programme.
- A thorough understanding of the practicalities and challenges of vaccine administration and the possible consequences of inadequate vaccine administration from a disease and economic perspective.
- A comprehensive understanding of the principles of therapeutics, therapeutic products available for poultry in the UK and their benefits/limitations both from a disease treatment and economic perspective.
- A clear understanding of the food safety and legal requirements of the use of preventative and therapeutic products.
- An understanding of the principles and practicalities of therapeutic and preventive product administration in the various poultry production systems.

## LEARNING TOPICS

For the following species: broiler chickens, layer chickens, and breeder chickens.

### **Most Major Diseases and their Diagnosis:**

- Viral diseases
- Bacterial diseases

- Fungal disease
- Protozoal diseases
- Parasites and parasitic diseases
- Toxicity
- Metabolic disorders
- Nutritional disorders and deficiencies
- Zoonosis
- Miscellaneous diseases

#### **Laboratory Procedures & Methods:**

- Post Mortem
- Serology
- Virology
- Bacteriology
- Molecular biological techniques
- Histopathology
- Limitations of diagnostic techniques

#### **Preventative programmes:**

- Biosecurity and a Health Plan
- Prophylactic treatment
- Immunology
- Vaccines and vaccination
- Vaccination techniques
- Surveillance and monitoring

#### **Therapy**

- Antimicrobial
- Alternative therapies
- Metabolic
- Supportive
- Administration principles & techniques

## ASSESSMENT

- 1) A **learning diary**, which documents the candidate's experiences over the period that the module is being completed. This will emphasise those points which have particularly interested or intrigued the candidate. The diary will distinguish between visits made and examples from reading or discussion with others. Photographic examples will be included. A list of learning resources used to contribute to the learning diary should be included.

A combined learning diary between C-POU.1 and C-POU.2 may be used if both modules are taken together, with approximately half of the entries relating to each module. Clear indications must be made as to which entries relate to which module, although it is recognised that these divisions are to a certain extent artificial, and candidates will gain credit for linking the themes in their notes alongside cases.

- 2) A case book of **four examples** from the learning diary where husbandry or management of a poultry flock or flocks has contributed to health/ welfare or production concerns. The candidate should have managed or have had a significant involvement in all of the cases. These cases may be presented in summarised or note form of **up to 1000 words each** and should include broiler, breeder, and layer examples.
- 3) A **1,000 - 1,500 word reflective synopsis** justifying the candidate's choice of cases and reflecting upon the candidate's learning during the module. This might include what has changed in their approach to a case, any new procedures or investigations that are now considered, any additional reading which was helpful, and/or any unexpected features of a case which will influence decision making in the future. This essay should only be submitted after all case reports/essays are assessed and returned to the candidate as it is possible that the assessor feedback from the case reports/essays may contribute to the candidate's learning through the module.
- 4) A **diagnostic tree** with appropriate notes to assist with the differential diagnosis of a common health problem such as 7 day mortality; reduced egg production in commercial layers; wet litter in broilers; sneezing in broiler breeders.

Any material presented for this module may be incorporated into the synoptic assessment required for the final certificate.

## ANNUAL ASSESSMENT TIMETABLE

<b>1<sup>st</sup> February</b>	If you are intending to submit work for assessment on the following dates, please inform CertAVP Admin Manager by this date
<b>1<sup>st</sup> March</b>	Learning diary/case book  Synopsis (only to be submitted once the case book has been assessed)  Diagnostic tree
<b>1<sup>st</sup> September</b>	Learning diary/case book  Synopsis (only to be submitted once the case book has been assessed)  Diagnostic tree

You may submit as many assessments as you have completed by these dates and results should be available within 8 weeks.

## INSTRUCTIONS FOR SUBMITTING CASE REPORTS / REFLECTIVE SYNOPSIS / LEARNING DIARIES

The case report should be written in the third person in a style suitable for publication in a Journal (for example Avian Pathology).

The following frame work should be used as a guide to the structure of the case report:

- Unit / Farm description (size, type, company or independent, etc.)
- History (disease, medications, vaccines, monitoring programme)
- Clinical Picture/ flock records etc.
- Investigation
- Diagnosis
- Treatment/ disease control (short. Medium and long term)
- Other implications (e.g. zoonosis, local, wider)
- Discussion
- References

## INSTRUCTIONS FOR SUBMITTING CASE REPORTS / REFLECTIVE SYNOPSIS / LEARNING DIARIES

Please ensure that at the beginning of your case book/synopsis is included:

- Your candidate number (to be given to you by the CertAVP office)
- Module name
- Case book/synopsis title
- Word count (excluding the above, tables, photo titles and references)

Please remove your name from any laboratory reports or other documents which are included in your submission to ensure anonymity.

Please submit your case book/synopsis as a

- MS Word document (97-2003 format or later)\*

(Please ensure digital images are submitted in a **compressed** format so that they can be easily transferred via e-mail)

and your learning diary as a

- MS Excel spreadsheet (97-2003 format or later)\*

attached to an e-mail and send it to: [certavp@rvc.ac.uk](mailto:certavp@rvc.ac.uk)

The preferred way of naming your file is module code, your name, and the type of work you are submitting, for example, **C-POU.2 Candidate 6 - Case Diary.xls** or **C-POU.2 Candidate 6 - Case Book 1.doc**.

\* Please note that as case reports / synopsis / case diaries in alternative formats have been unreadable in MS Word, any other format will be sent back to the candidate.



## **RECOMMENDED READING LIST**

### **Health and Disease**

Poultry Diseases Sixth Edition (2008) eds. Pattison, McMullin, Bradbury and Alexander

Disease of Poultry 12 edition (2011). Ed. Saif

Diseases Of Poultry A Colour Atlas 2nd Edition Author: Ivan Dinev

Color atlas of diseases of the domestic fowl & turkey (1985) C. J. Randall

Diseases and Disorders of the Domestic Fowl and Turkey(1991) C. J. Randall

### **Nutrition**

Nutritional and Digestive Disorders of Poultry (2006) eds Simon M. Shane, Lucy A. Tucker

Nutrition of Chicken 4th edition eds. Leeson and Summers

### **Hatcheries and incubation**

ROSS TECH Investigating Hatchery Practice October 2009

Avian Incubation (Poultry Science Symposium Series) [Hardcover] 1991 S. G. Tullett

<http://www.howtoincubate.com>

<http://www.natureform.com>

### **Poultry slaughter and processing**

Poultry Meat Processing By Alan R. Sams - CRC Press (2009)

Handbook of Poultry Science and Technology : Primary Processing , Volume 1 Isabel Guerrero–  
Legarreta (editor) Wiley-Blackwell (2010)

### **Management Guides**

Aviagen - Breeder and Broiler Manuals and Technical notes available online

Cobb - Breeder and Broiler Manuals and Technical notes available online

Hyline – Layer Manuals and Technical notes available online

Hendrix Poultry - Layer Manuals and Technical notes available online

Hubbard - Breeder and Broiler Manuals and Technical notes available online

Lohmann - Layer Manuals and Technical notes available online

### **Codes of Practice**

DEFRA Codes of Practice for Welfare

Assured Chicken Production

Code of Practice for Lion Eggs - The British Egg Industry Council

RSPCA Welfare Standards for Laying Hens

### **Poultry Science Symposium Series Volumes 1-30.**

Volumes 1-24 published and may be available from Carfax Publishing Company. Volumes 25 on are published by CAB International (CABI).

### **Journals – which also contain some good review articles**

Avian Pathology

Poultry Disease

## Marking Regulations

<b>1. Course:</b>	RCVS – Certificate of Advanced Veterinary Practice
<b>2. Section:</b>	C Module Poultry Disease Diagnosis, Prevention and Treatment (C-POU.2)
<b>3. Applicable to Academic Year:</b>	2012/13 onwards
<b>4. Aspects of course covered by Examination:</b>	All areas studied during the module
<b>5. Requirement to be completed to permit entry to the examination:</b>	<ol style="list-style-type: none"> <li>1. Appropriate enrolment to the C module.</li> <li>2. Candidates are advised that they should achieve a pass grade in the Module B-PAP.1</li> </ol>
<b>6. Form of Examination:</b>	<ol style="list-style-type: none"> <li>i) a learning diary/case log</li> <li>ii) a casebook of four cases (1,000 words each),</li> <li>iii) a reflective synopsis (1,000 - 1,500 words) justifying the candidate's choice of cases and reflecting upon the candidate's learning during the module</li> <li>iv) a diagnostic tree with appropriate notes to assist with the differential diagnosis of a common health problem.</li> </ol>
<b>7. Marking Criteria:</b>	<ol style="list-style-type: none"> <li>1. Case book, synopsis - The RVC common 17 point marking scheme applied at the post graduate (Masters) level.</li> <li>2. Learning diary/case log, diagnostic tree - approval of appropriate timeline and content as described in course literature</li> </ol>
<b>8. Allocation of Marks and any additional requirements</b>	Each case report or essay is equally weighted
<b>9. Requirements to Pass Overall and Progress to the Next Stage</b>	<p>Work must be submitted and assessed within the 10 year registration period, or if enrolled after 1st July 2010, within the 2 year registration period.</p> <p><b>First Submission</b></p> <p>Approval of the learning diary and diagnostic tree  50% or greater in the grading of the reflective synopsis  50% or greater in the grading of the case book</p> <p><b>Re-submission</b></p> <p>Sections graded below 50% in the first submission are re-graded on re-submission and the following criteria must be reached taking that new grading into account:  Approval of the learning diary and diagnostic tree</p>

<p>50% or greater in the grading of the reflective synopsis 50% or greater in the grading of the case book</p>
<p><b>10. Consequences of Failure</b></p> <p>1. A candidate who fails at their first submission will be required to re-submit or re-sit the sections they have failed in the next or a future assessment cycle, or withdraw from the Certificate.</p> <p>2. A candidate who does not meet the requirements to pass overall after taking all the allowed opportunities to resubmit their work will normally be required to relinquish the course of study but s/he will have the right of appeal as described in the College Regulations.</p> <p>3. Should a candidate successfully appeal to be re-admitted to the Certificate they would normally have to repeat the entire module with new case material and would incur a further assessment fee.</p>
<p><b>11. Classification</b></p> <p>The examination is only classified as a Pass or a Fail. Candidates that pass the examination will be allocated 10 credits in the CertAVP structure and the RCVS will be appropriately informed.</p>
<p><b>12. Disclosure of Marks</b></p> <p>Candidates will be advised of their marks by email and they can request a letter confirmation</p>
<p><b>13. Late submission of work</b></p> <p>Work that is submitted after the deadline cannot be accepted for grading in that cycle. Work may stay on file for grading at the next submission date or the candidate may re-submit before that date</p>