

**Certificate in Advanced Veterinary Practice**  
**B-PAP.2 Production Animal Practice**  
**(in the context of cattle, sheep and camelids)**

**Module Outline**



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This module covers the principles of veterinary practice as they relate to production animals, generally defined as animal species which may be used for human consumption or whose products may be used for human consumption. Production animals specific to this module can include cattle (dairy and beef), sheep (and other small ruminants) and camelids.

Because the general principles of production animal practice are deemed to be relevant to all species, the module may be studied in the context of just one or more than one of the production animal species mentioned above. This module is not a specialist small ruminant or camelid module but attempts to accommodate the practitioner who has an interest in these areas alongside their cattle work.

This module is required by candidates who wish to achieve a designated CertAVP and provides the foundation for further study in a number of CertAVP C level modules, including veterinary public health, animal welfare and reproduction.

## AIM

The aim of the module is to provide the foundation for developing expertise in production animal veterinary practice. Its specific objectives are:

- To develop the clinical decision-making and reasoning skills required by advanced practitioners, including the ability to gather, organise, analyse, interpret and present complex data and information.
- To develop communication skills, particularly the ability to write case reports as a means of articulating clinical reasoning and decision-making processes.
- To develop the reflective skills needed to improve understanding of issues raised in clinical practice and to help evaluate learning progress and learning needs.
- To expand and deepen technical knowledge of all aspects of production animal veterinary practice.

## LEARNING OUTCOMES

On successful completion of the module, candidates will be able to:

- Apply pathophysiological knowledge, epidemiological principles and evidence-based approaches (including selection of appropriate diagnostic procedures) to the evaluation and management of individual clinical cases and population problems in a chosen area of production animal veterinary practice.
- Apply therapeutic and surgical principles, including anaesthesia and sedation, to the management of clinical and population health problems in a chosen area of production animal veterinary practice.
- Describe use of diagnostic imaging, if appropriate, in their practice premises and (where applicable) in the field, including quality control procedures in place that allow for the safe production of diagnostic images
- Provide practical advice on population health and welfare in a chosen area of production animal practice
- Discuss the practical application of available information technologies for improving animal health and production.

## CONTENT

The scope and level of study which candidates will need to undertake in order to achieve the intended Learning Outcomes will depend on their existing familiarity with the topics, their individual learning needs, the production animal species being studied and the educational approach taken by module providers. The topics listed below are indicative of the required areas of study – they are not intended to be prescriptive and they should be viewed in the context of the production animal species being studied.

### Evaluation and management of clinical cases and population/herd/flock health disease problems

- Application of evidence-based veterinary medicine
- Selection of appropriate laboratory diagnostic procedures and interpretation of results
- Diagnostic imaging, as appropriate, including radiology and diagnostic ultrasound

- Fertility and reproduction management, including approaches to pregnancy diagnosis where appropriate
- Disease dynamics in populations

### **Therapeutics and surgical practice**

- Clinical pharmacology
- Surgical practice, including pre-operative evaluation, aseptic techniques, peri-operative analgesia, post-operative care and client education
- Anaesthetic management, including pre-anaesthetic assessment, sedation, analgesia, anaesthetic equipment, monitoring and supportive measures, recovery/post operative care

### **Population health and welfare**

- Welfare, nutrition and husbandry
- Health and disease surveillance
- Population/herd/flock health planning and disease control
- Information technologies for improving animal health and production (for example, specific software analyses and farm databases)

## ASSESSMENT

- Four case reports of 1,000 - 1,500 words each. All cases are to be managed by the candidate and should demonstrate that the candidate has dealt competently with a range of commonly presented conditions or situations from the area of practice in which they are working. Of the four case reports, one can be a camelid report **and** one can be a small ruminant report with the remainder based on cattle.
- One literature review of 1,000 - 1,500 words on a topic of the candidate's choice related to production animal health or medicine. This could be based on a case that the candidate has seen in practice or on an area of particular interest to the candidate. The review should focus on the current literature/evidence as appropriate for the topic.
- A 1,000 - 1,500 word essay 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.

The module leader will review your first case report; please submit this as per the timetable below and feedback should be received within 4 weeks. You may wish to receive this feedback before submitting further cases for marking.

## ANNUAL ASSESSMENT TIMETABLE

Report submission dates
1 <sup>st</sup> February
1 <sup>st</sup> May
1 <sup>st</sup> August
1 <sup>st</sup> November

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

## LEARNING SUPPORT

Learning support is provided to aid self-directed learning and to provide easy access to published articles. You will be given a username and password which will allow you to log on to 4 different systems:

### 1. RVC Learn (<http://learn.rvc.ac.uk/>)

- Articles of interest for all areas covered in the module
- A video from the recent CertAVP Survival Tips day detailing the B-SAP.1 assessment requirements (useful to watch to relate writing skills to this module)
- Discussion boards between other candidates enrolled on the module and with RVC tutors
- Access to SCOUT, RVC's solution for the discovery and delivery of resources including books, ebooks, journal articles and digital objects, all in one single search. Log in to SCOUT using your RVC username and password to save items on your eshelf. If you are able to use the library in person, you can borrow a book for one week with photo ID. IT and Library support is available for this facility (email [library@rvc.ac.uk](mailto:library@rvc.ac.uk) or [helpdesk@rvc.ac.uk](mailto:helpdesk@rvc.ac.uk)).

### 2. RVC Intranet (<https://intranet.rvc.ac.uk>)

Access to all information available to all RVC students and employees, for example, news, events, policies, committees, services, Library, IT helpdesk, etc.

### 3. Athens (<http://www.openathens.net/>)

Athens is an access management system which controls access to many electronic information sources. When you log in to an Athens protected resource it checks to see if you are a member of an institution that has paid to use that resource, and if your username and password are correct it lets you through.

### 4. Webmail (<https://webmail.rvc.ac.uk>)

You are given an RVC email address, which you can choose to use for your CertAVP communication. You will also receive general RVC emails to this account.

## MENTOR

You may wish to have a mentor with which you can discuss cases. Ideal mentors would have post-graduate qualifications (for example, certificate, diploma) relevant to production animal practice and finding a mentor and maintaining appropriate and regular contact are the responsibility of the candidate. Mentors operate on a goodwill basis only and RVC academic staff will not be available as mentors.

## CASE REPORT GUIDANCE

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

- Unit summary (size, type, location indoor/outdoor etc.)
- Relevant history/medications/vaccinations
- Summary of situation
- Diagnostics
- Treatment (s)
- Response
- Impact on farm of disease and intervention/economics
- Discussion (this should comprise 35-40% of case report)

Students should show the limitations of the case (i.e. insufficient sampling) and to discuss the differential diagnoses, how the disease developed, basic epidemiology, its financial impact, and ethical and welfare implications. Where appropriate they should include a justification of 'pragmatic' advice rather than the 'text-book' answers.

- References

## SUMMARY ESSAY

The final submission is a 1,000 - 1,500 word reflective essay discussing the reasons for your choice of cases, your learning during the module and how this learning has influenced your and/or your team's current and future practice. This might include what has changed in your approach to a case, any new procedures or investigations that are now considered, any additional reading or learning strategies which were helpful, support you have been able to give to your colleagues, and/or any unexpected features of a case which will influence decision making in the future.

It can be helpful to base the essay using the reflective **Three Whats** approach:

- **What?** (did I do/observe/write about)
- **So What?** (did I learn)
- **Now What?** (how will this change my practice in the future).

This essay should only be submitted after all case reports are assessed and returned to you, as it is possible that the assessor feedback from the case reports may contribute to your learning through the module.

Each case report has a 20% weighting of your final module result. The final summary essay will not receive a mark but submitting and passing it is a condition of passing the module.

## INSTRUCTIONS FOR SUBMITTING CASE REPORTS

Case reports/essays word counts between 1,000 and 1,500 words are acceptable; a case report/essay that exceeds the permitted word count will be returned to the candidate for re-submission within the word limit. This is in the interest of fairness as it is difficult to compare an essay exceeding the word limit with one which has been kept to the required limits. Additionally, the ability to keep a discussion tightly focused, with every word counting, is an important skill to have developed at this level. Information included in a table will be included in the word count unless it is mainly numerical information (e.g. laboratory data in a table is not included in the word count).

Please name your files to include the following: module code, your name, and the type of work you are submitting, and email them to [certavp@rvc.ac.uk](mailto:certavp@rvc.ac.uk):

**B-PAP.2 CSC Name – Case report 1 - REVIEW.doc**

**B-PAP.2 CSC Name – Case report 1 - MARKING.doc**

**B-PAP.2 CSC Name – Case report 2 - MARKING.doc**

**B-PAP.2 CSC Name – Case report 3 - MARKING.doc**

**B-PAP.2 CSC Name – Case report 4 - MARKING.doc**

**B-PAP.2 CSC Name – Literature review - MARKING.doc**

**B-PAP.2 CSC Name – Summary - MARKING.doc**

**Please ensure that the beginning of your case reports include:**

- Module name
- Your name
- Case report title
- Word count (excluding the above, tables, photo titles and references)

## References

- We recommend using Harvard referencing as described by the Anglia-Ruskin University (<http://libweb.anglia.ac.uk/referencing/harvard.htm>).
- You will find it very helpful to use a program such as Endnote® or Reference manager® to organise your references.

## Plagiarism

All written work submitted to the Royal Veterinary College is passed through plagiarism detection software. Work submitted for this module should not have been submitted for any other courses at RVC or other institutions.



## RECOMMENDED READING LIST

The following list is given as a guide as to where to start and for this reason cannot be considered 'complete'. We also don't expect candidates to read texts from cover to cover or to use all of the texts listed, however we do recommend you make use of the most recent edition of textbooks where available. We apologise if candidates feel a particular favourite is missing - feel free to use the Learn discussion board to pass on additional suggestions to other candidates. Please note that we also expect you to read selected articles that are relevant to the particular case that you choose to write up from peer reviewed publications such as:

- i) Journal of Dairy Science
- ii) Preventive Veterinary Medicine
- iii) The Veterinary Journal
- iv) Theriogenology

(these journals also form the core reading for the Diploma awarded by the European College of Bovine Health Management)

Other suggested texts include:

- Veterinary Medicine - A textbook of the diseases of cattle, horses, sheep, pigs and goats (Radostits, Gay, Hinchcliff & Constable)
- Rebhun's Diseases of Dairy Cattle (Divers & Peek)
- Bovine Medicine: Diseases and Husbandry of Cattle (Andrews, Blowey, Boyd, Eddy)
- Goat Health and Welfare: A Veterinary Guide (Harwood)
- Sheep Flock Health: A planned approach (ND Sargison)
- Diseases of Sheep (edited by Ian Aitken)