

DIPLOMA IN EQUINE ORTHOPAEDICS

Please view the general documents to obtain copies of:

- The stages of enrolment information.
- B.1:** Guidance Notes for candidates on general requirements.
- B3:** General Guidance Notes on preparation for a Dissertation.
- E1:** Application form **E.I** - for enrolment and initial approval of experience.
- H.** Role of Advisers to Certificate Candidates.

The following papers are enclosed:

The following papers are attached:

- B2:** Specific requirements for the Diplomas.
- C:** Syllabus and Commentary for the Diplomas.
- D:** Reading lists – there are none for the Diplomas – please refer to Certificate Lists.
- E:** Application forms E.1a, E.1b, E.2
 - E.1(a)** - for specific details of practice/centre
 - E.1(b)** - for proposed title for Dissertation
 - E.2** - for final approval of experience and for permission to submit an entry to the examination
- F:** List of Techniques and Procedures - this should be countersigned by your Adviser/or Senior Colleague and submitted prior to entry to the examination and at the latest at the time for final approval of experience.
- G:** List of Advisers.

A copy of the most recent Examination Question Paper is enclosed for your information.

January 2010

The Royal College of Veterinary Surgeons
Specialisation and Further Education

THE DIPLOMA IN EQUINE ORTHOPAEDICS SURGERY
THE DIPLOMA IN EQUINE SOFT TISSUE SURGERY
THE DIPLOMA IN EQUINE INTERNAL MEDICINE
THE DIPLOMA IN EQUINE STUD MEDICINE

SPECIFIC GUIDANCE NOTES FOR CANDIDATES

[These notes must be read in conjunction with the B1 General Guidance Notes to Candidates]

MEMBERSHIP OF THE ROYAL COLLEGE OF VETERINARY SURGEONS

1. It is a requirement of the Equine Board that ALL candidates entering for these Diplomas are Members of the Royal College of Veterinary Surgeons (MsRCVS).

SPECIFIC EXPERIENCE

2. Candidates entering for the examination must have substantial involvement in the appropriate equine field.
3. Substantial involvement is defined as a veterinary surgeon gaining experience exclusively in an equine practice (or a mixed practice with a very large component of equine work) since graduation, who might be able to enter for the Diploma examination four-five years after graduation. However, it is considered that this would be exceptional, and that most candidates would take five-six years or longer from graduation. A substantial degree of participation, as defined by the Board in the subject concerned must include at least three calendar years of substantial intensive experience acceptable to the Board.
4. It is recommended that some association with Veterinary Schools or the Animal Health Trust through an appointed adviser is almost a necessity, especially for those whose circumstances e.g. a practice situation, do not normally allow interchange of information, or availability of literature etc., particularly in 'basic science' areas.
5. No period of experience can be offered to meet the requirements for more than one Certificate/Diploma and, preferably, applicants should be studying for one qualification only, at a time, at Diploma level.

6. Candidates may gain experience for a Diploma:

- (a) at an approved centre for their subject
or
- (b) at an approved practice.

Approved Centre Route

7. Candidates following an approved training programme at an approved centre will not be permitted to enter for the examination until they have been Members of the College or held an approved veterinary qualification for **at least four years** and are required to offer experience in the subject over **at least four years**.
8. **Applications for approval of a Centre must be made directly by the Centre to the RCVS and not by the candidate. An application form can be obtained from the RCVS.**

Approved Practice Route

9. Candidates following the approved practice route will not be permitted to enter for the examination until they have been Members of the College or held an approved veterinary qualification for **at least five years** and are required to offer experience in the subject over either:
- (a) **at least five years including 200 days spent at an approved centre,**
OR
 - (b) **at least six years** if gaining experience solely at an approved practice.
10. **There is no separate application form for approved practice other than the candidate applications forms enclosed within this Information Pack. Practices are approved for each individual candidate.**
11. The Board has discretion to increase the requirements for experience for any candidate above the minimum specified if it is considered to benefit the candidate.
12. Experience accepted for the Certificate will count towards the experience required for the Diploma, at the discretion of the Board, whether the candidate is at an approved centre or an approved practice.

FINAL APPROVAL OF EXPERIENCE/ ADDITIONAL SUBMITTED WORK

Certification of techniques and procedures

13. At the time of application for FINAL approval of experience, candidates will be issued with a list of certain techniques and procedures in which the candidate's competence must be certified by his adviser, or a senior colleague in the practice or centre where he is or has been employed. Those candidates who self-certify **MUST** have the list countersigned by their adviser. The certified list must be submitted to the RCVS by **1 November**.

THE EXAMINATION

14. The examination consists of three Sections:
 - (a) a Dissertation OR 5 Published Papers
 - (b) TWO x 3 hour written papers, and
 - (c) a clinical, oral and practical examination.

SUBMITTED WORK FOR EXAMINATION

Dissertation OR Five published papers

15. A candidate's choice of subject for a dissertation must have been approved by the Board, and it is obviously of advantage to the candidate to have as much time as possible to write the dissertation, having obtained approval of the subject. **Alternatively**, the titles of a minimum of five published papers (accepted or submitted) for publication must also have been approved by the Board. It is strongly recommended that a candidate should seek advice from their advisers prior to application to the Board. For these reasons, application for approval of subject should be made not later than **1 November** in the year prior to that in which it is planned to take the examination. Candidates should note that papers must have been published or accepted for publication at the time of submission.

Dissertation

16. Application on Form E1B must be made for approval of the proposed subject of the dissertation by **1 November**. No exemption is permitted.
17. Candidates may **not** use all or part of the work prepared and submitted for another postgraduate qualification including Diploma of Fellowship, as all or part of their dissertation for an RCVS Diploma. However, publications in peer reviewed journals **arising from** any postgraduate degree, for example, a PhD or Masters thesis, could be

used towards a subsequent Diploma if publications of this type form part of the Diploma requirements and are appropriate to the discipline.

18. **Three copies** of the dissertation are required.

Candidates are also asked to submit an electronic version of their submitted work together with their hard copy. This will be retained at RCVS unless requested by the examiners for purposes such as checking the word count. The electronic version should be Microsoft Office 2000 or XP compatible and should be submitted on either CD or floppy disc/s. Please ensure that the disks are easily identifiable by placing them in an envelope with your name, and 'Electronic version of submitted work for 'Diploma in Equine Internal Medicine' marked clearly on the front.

Dissertation Word Count

19. The dissertation should be of **not more than 10,000 words excluding the lists of references etc.** based on original material and data and incorporating personal observations, on a subject approved by the Board. The dissertation may be based on a retrospective study of a series of clinical cases.

20. A word count must be shown on the front cover of the Dissertation.

Five Published Papers

21. Application on Form E1B must be made for approval of the proposed subject of the Published Papers by **1 November**. No exemption is permitted.

22. As an alternative to the Dissertation, a candidate may submit **FIVE papers published in refereed journals** which have not previously been submitted for another postgraduate qualification. These should consist of **a minimum of TWO Principal Author papers and THREE other papers in which the candidate has had a substantial input.**

23. **Three copies** of the published papers are required, and should be presented bound.

24. The five papers should have a common or linked theme with an 'Introductory Chapter' to be presented with the published papers in related areas reviewing the literature relating to the horse and the relationship between this and the published paper AND a 'Concluding Chapter' discussing the importance of the body of work presented.

25. The candidate may elect to include additional data related to but not included in the five papers.

26. Only papers published, or accepted for publication at the time of submission, in a refereed journal may be used. If a paper is submitted for examination that has not already been published, then it **MUST** be accompanied by a letter from the Editor of the refereed journal confirming final acceptance of the paper for publication. A paper that is accepted for publication subject to minor changes being made is NOT ACCEPTABLE for the examinations.
27. A review article is acceptable as ONE of the published papers providing at least ONE of the other published papers is original work. Short communications, such as brief case reports, are not acceptable. Reviews of a series of cases are acceptable.
28. If any multi-author papers are to be included, these must be accompanied by a statement from the co-authors that the senior author (the candidate) was responsible for the majority of the work. The following statement should be included at the front of each copy of the published papers.

Published papers submitted in part fulfilment of the requirements for the RCVS Diploma in.....by (name of candidate).

Acknowledgements are due to: name.....for (description of assistance given).

Grading Scheme

29. The submitted work will be graded "Good Pass"; "Pass" or "Fail":
- **Good Pass** - (60% or over) - the work will be lodged in the RCVS Library as a suitable example for future candidates.
 - **Pass** (defined as 50%) – The work is adequate to enable the candidate to proceed to the remaining sections of the examination, but the submitted work may need to be revised by the date of the clinical, oral and practical for lodging in the Library if the candidate is successful in the examination as a whole.
 - **Fail** (below 50%) – the work is not adequate to enable a candidate to proceed to the remaining sections of the examination for the year in question.

WRITTEN EXAMINATION

30. Candidates are warned that answers should be given specifically and that illegible handwriting may result in examiners being unable to award marks for information

which candidates intended to convey. In addition, the examiners will take into consideration the candidate's spelling and whether or not the question has been answered in the form requested.

Format

31. This Section consists of 2 three-hour written papers.
- (a) **Paper I** - will cover the basic sciences as applicable to the subject; the paper will comprise a choice of 2 essay-type questions (1½ hours) and 10 compulsory short-answer questions (1½ hours);
 - (b) **Paper II** - will cover the clinical aspects of the subject, and will consist of 6 questions of which 5 are to be answered.

Marks Scheme for the Written Papers

32. The marks for the written papers are broken down as follows:

Paper I will be marked out of 50 marks

Paper II will be marked out of 50 marks

Total Mark for this Section (b) = 100 marks

CLINICAL, ORAL AND PRACTICAL EXAMINATION

Format

33. The clinical, oral and practical examination will extend over approximately 3 hours for each candidate. Candidates should normally attend equipped to carry out clinical examinations, but advice will be given prior to the examination. Questions may be asked in relation to the Dissertation submitted for Section A.

34. There will be an objective practical and this may involve examination of live animals; a 'steeplechase' – examination of radiographs, ultra-sonographic images, scintigraphic images, videos for discussion; an oral examination focussing on basic science, the submitted work and finally clinical issues.

Marks Scheme

35. The breakdown of marks for the clinical/oral/practical is as follows:
- | | |
|------------|------------------|
| Clinical: | marked out of 50 |
| Practical: | marked out of 25 |
| Oral: | marked out of 25 |

TOTAL Mark for Section (c) = 100. nb. Candidates **MUST** achieve 50% of the marks for each part, in order to pass this section of the examination.

SYLLABUS AND READING LIST

36. A syllabus, with a brief commentary, and reading lists for the Certificates, which were frozen at November 2002, are provided for reference. There are no separate reading lists for the Diplomas as candidates at this level are expected to be familiar with all literature in the area of their elective and most particularly so in the topic of their dissertation or submitted papers. Candidates are expected to do their own research and make use of the RCVS Library and Information Service.

ADVISERS

37. Candidates are urged to seek advice from their advisers. Candidates should approach someone listed in the lists of Diplomates or Specialists in the RCVS Register of Members to seek their agreement to act in this capacity. The adviser should signify their willingness to act by signing the enrolment application Form E1. Alternatively, if a candidate has been unable to find an adviser, the Board will make a suggestion.

38. It is stressed that it is for the candidate to make contact with their adviser throughout the preparations for the examination and to travel to meet him if necessary. For those candidates whose circumstances, e.g. a practice situation, do not normally allow interchange of information, availability of literature etc, particularly in 'Basic Science' areas, it is necessary for some association with a Veterinary School or The Animal Health Trust, through an appointed adviser. It is especially recommended for candidates for Equine Surgery (Orthopaedics) that they seek advice both from a clinical adviser and a specialist involved in research work related to the musculoskeletal system. Advisers will advise a candidate on the suitability of material for the dissertation and **MUST** certify on the declaration that they have approved the dissertation prior to submission for the examination.

39. It has been the experience of the Examiners that, candidates who do not liaise with their advisers well in advance of their entry to the examination, are more likely to be unsuccessful in the examination.

40. Advisers will not be held responsible for the candidate's performance in an examination.

ATTENDANCE AT SHORT COURSES

41. The Board is not making attendance at any particular course or courses compulsory in terms of the byelaws.

MEMBERSHIP OF VETERINARY ASSOCIATIONS/SOCIETIES

42. Enrolled candidates are encouraged to become a Member of the British Equine Veterinary Association and attend meetings.

ABBREVIATION FOR QUALIFICATION

43. Successful candidates should use the following abbreviations after their names in the RCVS Registers of Members, and on practice plates, stationery, etc.. Certificate holders who obtain the Diploma in the same subject cease to use the Certificate abbreviation:

- | | |
|--|----------------|
| - Diploma in Equine Orthopaedics | - DEO |
| - Diploma in Equine Soft Tissue Surgery | - DESTS |
| - Diploma in Equine Internal Medicine | - DEIM |
| - Diploma in Equine Stud Medicine | - DESM |

Originated December 1993

Revised: July 1994, June 1995, July 1996, February 1997, August 1998, August 1999, July 2000, April 2001, Nov 2001,

Nov 2002. Nov 2003. No Amendments 2004. Amended Nov. 2005. Amended Nov. 2006.

GENERAL GUIDANCE NOTES FOR DIPLOMA CANDIDATES ON THE PREPARATION OF A DISSERTATION

B.3

The dissertation should be presented in the normal format for a scientific article unless there are strong reasons why this is not appropriate: any different format should be approved by the supervisor before the first draft is produced.

The normal sections are:

Introduction

This should include a brief review of the literature on the subject giving appropriate references. References may be cited in one of two ways e.g. 'Smith and Brown (1993) found that parasites increased in July' or 'Previous studies have shown that parasites increased in July (Smith and Brown, 1993)'.

It should be a critical review to indicate what is already known and where the gaps are in our knowledge which you have set out to remove. At the end of the introduction, it should be possible to say ' In the light of the literature I have reviewed, the aims of this study are to plug the following gaps by carrying out the following work' or something to the same effect!

Materials and methods

This should include an account of the animals or flocks or specimens used and the experimental methods and techniques you have used in order to obtain your results. There is no need to give details of well-known techniques but it is important that a reader should be able to repeat the work and certainly be able to decide on the reliability of your techniques, which obviously affect the value of your results. If you use techniques developed by other people, you should refer to a book or journal where the details are published.

Results

There should be a logical description of what you have found by the techniques you have described. This section may benefit by the inclusion of tables, graphs, figures or photographs which should have captions which are sufficiently self-explanatory to stand alone, though they should also be referred to in the appropriate part of the text. This section should not contain any comments on the significance of the results or to any inconsistencies or problems encountered.

Discussion

This section should contain a critical discussion of the significance of the results and of the extent to which the aims described in the introduction have been achieved. It should also relate the new findings to previous work and it may therefore be necessary to quote again some of the papers cited in the introduction but for a different purpose. In the introduction, it was to show where the gaps were, here it is to show how your results agree, disagree or add to the previous work. Any conclusions or new ways of tackling the problem should be indicated here.

References

Unfortunately, there are a number of different ways used by different journals to list references in this list, so it isn't possible to lay down the one correct way! Since you might also wish to write your work as a paper for a journal, however, it is best to use a style which can be adapted to any journal, which means that the reference should be cited in full as follows:

Smith, M. J. and Jones, W. B. (1993). The seasonal fluctuations in parasite numbers in sheep in Britain. *Veterinary Record*, 134, 123 - 134.

A very careful check should be made to ensure that the references in the text are exactly the same as those in the list. (Trying this out on articles in any journal will give you a good idea as to the care with which the articles are edited by the authors or the journal).

Acknowledgements

This section gives you the opportunity to thank anyone who has helped with the work or the dissertation.

Appendices

If there is a great deal of detailed data such as laboratory findings, it may be helpful to place most of it in appendices with only summaries such as mean values in the results section.

DIPLOMA IN EQUINE ORTHOPAEDICS

Syllabus and Commentary

Commentary

The Syllabus for the written/practical and oral examination in Equine Orthopaedics focuses in great detail on those aspects veterinary science related to this discipline.

Candidates are expected to have a detailed, up-to-date theoretical knowledge and understanding of the subject derived from reading specialist textbooks, relevant journals and attendance at meetings. In addition, they must demonstrate a very high level of practical knowledge and skills derived from a substantial involvement in the discipline in a specialist equine practice or veterinary centre. The level of knowledge and expertise must be that of someone who will be accepted nationally, and probably internationally, as an expert in the discipline.

The dissertation must embody a report of a clinical or experimental study, together with a critical review of the literature and a discussion of the relevance of the study to previously published work. It must be of a standard acceptable for publication in a refereed journal.

DIPLOMA IN EQUINE ORTHOPAEDICS

Award of the Diploma is by examination and is based on substantial intensive experience acquired in general practice or other veterinary centre with a large component of equine orthopaedic work. Candidates need to have a profound practical and theoretical knowledge of all aspects of the subject.

Reference should also be made to the reading list, in conjunction with discussion with a clinical and a basic science advisor.

Syllabus

1. The Part 1 (Certificate) syllabus should be used as a base for in-depth study.
2. Additionally, the candidate should study:
 - A
 - a) the microstructure of the tissues of the locomotor system,
 - b) muscle, bone and joint physiology, biochemistry, pathophysiology and pathology,
 - c) healing of bone and tendons,
 - d) the development of the locomotor system,
 - e) pharmacology of drugs acting on the locomotor system,
 - f) radiology, ultrasonography and nuclear scintigraphy of the locomotor system,
 - g) pathophysiology of nervous tissue injury and repair,
 - h) locomotion, equine gait analysis and biomechanics.
 - B
 - a) the skin; pathophysiology of wound healing.
 - b) principles of skin grafting.
3. Have an in-depth appreciation of the literature as it relates to the locomotor system.
4. Possess extensive diagnostic and surgical expertise, including internal fracture fixation techniques and arthroscopic surgery.

5. Have a thorough knowledge of laboratory aids to diagnosis and clinical pharmacy relating to the locomotor system.

Originated March 1994
Revised July 2000

CERTIFICATE IN EQUINE SURGERY (ORTHOPAEDICS)

COMMENTARY

The syllabus for the Certificate in Equine Surgery covers those aspects of veterinary science that relate to those disorders and diseases that are generally considered to be surgical, and whose treatment may involve the use of operative surgery. In addition, it also includes the normal structure and function of the relevant tissues, organs and systems.

All candidates are expected to have a level of theoretical and practical knowledge of all parts of the syllabus derived from substantial practical experience at a level equivalent to that of the Certificate in Equine Practice. In their elective subject (Orthopaedics) candidates are expected to have a theoretical and practical knowledge, greater than that required for the Certificate in Equine Practice, based on substantial practical experience working in the subject area. This is most likely to be gained if the candidate has had a major commitment, in terms of time, in a dedicated equine practice or centre. The level of knowledge and expertise is not expected to be that of someone deemed to be an expert or specialist in the discipline.

THE ROYAL COLLEGE OF VETERINARY SURGEONS

EQUINE BOARD

Certificate in Equine Surgery (Orthopaedics)

Syllabus

Principles of Surgery to Include:

(a) Wounds and wound healing

A sound knowledge of (i) the principles of wound healing of all tissues. An understanding of the influence of surgical interventions and other interventions on wound healing such as healing after the use of diathermy, cryosurgery, chemotherapeutic agents and radiation therapy.

The role of sutures in wound healing and the influence of suture patterns and materials.

The role of drainage in wound healing.

The role of bandaging and casting in wound management.

(b) The Control of Surgical Infection

Concepts of contamination risks in traumatic and surgical wounds.

Modern concepts of asepsis sterilisation, theatre design and surgical protocol.

The epidemiology of surgical infection.

Nosocomial infections.

The rational use of antibiotics in surgery.

(c) Instrumentation

A general knowledge of instruments used in all aspects of equine surgery.

(d) Principles of fracture treatment

(e) Principles of treatment of joint disease and articular tissues

(t) Principles of treatment of tendon injuries

2. General

(a) Anatomy & Physiology

A general knowledge of the anatomy and physiology of the locomotor system.

(b) Surgical Experience

Some surgical experience including the more common internal fixation techniques and arthroscopic surgery; an appreciation of those conditions which require referral.

(c) Techniques

A thorough knowledge of radiography and radiology and a basic understanding of scintigraphy, ultrasonography and advanced diagnostic imaging techniques such as MRI and CT.

(d) *Restraint and Anaesthesia

Principles of physical and chemical restraints. A basic knowledge of general anaesthesia.

Local analgesic techniques.

(e) Clinical Pathology

Techniques for sampling of fluids and tissues. Principles of sample handling. Interpretation of haematological, biochemical and fluid/tissue sample results.

(t) An appreciation of the equine industry; knowledge of horsemanship and equitation.

(g) A sound knowledge of farriery.

(ii) Use of anti-inflammatory drugs and analysis.

(i) Principles of examination on behalf of a purchaser.

(j) Welfare

The normal behaviour of horses and assessment of abnormal behaviour patterns. The assessment of pain, suffering and stress. The basic needs of the horse. Welfare aspects of study, transportation, competition and general care of horses. Legislation affecting the welfare of horses.

3. Basic Structure and Function

(a) Bone and cartilage; their blood supply and fracture healing processes.

(b) Joints; effects of trauma

(c) Tendons and ligaments; injury and repair.

(d) Muscle.

(e) Basic neurology as it relates to the locomotor system.

4. Clinical Conditions: Their Diagnosis and Treatment

(a) Diseases of bone, joints and muscle.

* (b) Neurological examination techniques and neurological conditions.

(c) Diagnosis of lameness; clinical, radiographic, laboratory methods, local analgesia, gait analysis, etc.

(d) Working knowledge of conditions affecting - the shoulder, elbow, carpus, distal limb, foot. The hip, stifle, hock, distal limb, foot.

(e) Knowledge of basic conditions affecting the neck, back and pelvis; spinal lesions, soft tissue lesions.

(t) Conditions affecting the foal and the growing animal.

- (g) Methods of treatment; surgical, medical and pharmacological; physiotherapy; surgical shoeing; immobilisation and splinting of limb injuries.
- (h) Facial and jaw fractures.

5. *Techniques and Procedures

Candidates should be generally competent and experienced in the performance of the relevant techniques and procedures, and should obtain certification to this effect (for submission to the Equine Board) from their advisors or from a senior veterinary member of staff in their practice/centre, in respect of each of the techniques/procedures marked * above.

**ROYAL COLLEGE VETERINARY SURGEONS
EQUINE BOARD**

D

CERTIFICATE IN EQUINE SURGERY (ORTHOPAEDICS)

READING LIST

Candidates should note that the reading lists for the Equine Certificates were frozen in 2002 and will eventually be withdrawn. Candidates are expected to research the literature for themselves and are recommended to make use of the RCVS Library and Information Service for this purpose (<http://www.rcvslibrary.org.uk> , e-mail - library@rcvs.org.uk or telephone 020 7222 2021). Candidates should also seek advice on suitable reading matter from their Advisers.

Auer, J (1999) Equine Surgery (2nd Edn) . W B Saunders Co.

Back, W and Clayton, H (2000) Equine Locomotion. W B Saunders.

Bogan J, Lees P and Yoxall A (1993) Pharmacological Basis of Large Animal Medicine, Oxford, Blackwell.

Bromiley, M (1987) Equine Injury and Therapy. 2nd Edn. Blackwell Scientific Publications.

Butler J, Colles C, Dyson S, Kold S, and Poulos P, (2nd Edn) (1999) Clinical Radiology of the Horse. Blackwells Scientific Publications.

Colahan P, Mayhew I G, Merritt A M & Moore J (2000). Equine Medicine and Surgery, 5th Edn., Santa Barbara, American Veterinary Publications.

Curtis, S. Farriery – (1999) Foal to Racehorse. R & W Publications.

Denoix J M. Clinical anatomy of the Equine Distal Limb. (Feb. 2000) Manson Publishing.

Denoix J M & Paillous J-P. (1996) Physical Therapy and Massage for the Horse. Manson Publishing.

Dik K and Gunsser I (1988, 1989 and 1990). Atlas of Diagnostic Radiology of the Horse. Vols 1-3. Wolfe Publishing.

Fackelman G C and Nunamaker D M (1982). Manual of Internal Fixation in the Horse. Berlin, Springer-Verlag.

Getty R (ed)(1975). Sisson and Grossman's Anatomy of the Domestic Animals, 2v, 5th edn, Philadelphia, W B Saunders.

Goody P (1983). Horse Anatomy, London, J A Allen.

- Hall L S, Clarke K W and Trim C M (2000). *Veterinary Anaesthesia*, 10th edn, London, W B Saunders.
- Hickman J and Humphrey M (1988). *Hickman's Farriery: A Complete Illustrated Guide*, 2nd edn. London: J A Allen.
- McIlwraith C W et al (1990). *Diagnostic and Surgical Arthroscopy in the Horse* 2nd ed, Philadelphia; London: Lea and Febiger.
- McIlwraith C W and Turner A S (1987). *Equine Surgery - Advance Techniques*, Lea and Febiger.
- McIlwraith C W and Trotter G W (1996) *Joint Disease in the Horse*. W B Saunders.
- May S A & McIlwraith C W. (1998) *Self-Assessment Colour Review of Equine Orthopaedics and Rheumatology*. Manson Publishing.
- Mayhew I G (1989). *Large Animal Neurology: A Handbook for Veterinary Clinicians*. Philadelphia; London: Lea and Febiger.
- Milne D W and Turner A S (1979). *An Atlas of Surgical Approaches to the Bones of the Horse*, Philadelphia, Saunders.
- Mixca, A J (1996) *Equine Fracture Repair*. W B Saunders.
- Nixon D J. *Equine Fracture Repair* (1996). W B Saunders.
- Radostits O M, Mayhew I G & Houston D. (Aug 2000) *Veterinary Clinical Examination and Diagnosis*. W B Saunders.
- Reef, V. B. (1998) *Equine Diagnostic Ultrasound*. Chapters 1-3. W. B. Saunders Co. Philadelphia.
- Reimer, J M (1998) *Atlas and Equine Ultrasonography*. (Section I) Mosby. St. Louis.
- Schebitz H and Wilkens H (1977). *Atlas of Radiographic Anatomy of the Horse*, Berlin, Paul Parey.
- Smythe R H (1979). *The Horse, Structure and Movement*, revised by P C Goody, 2nd edn, J A Allen.
- Stashak E S (1987). *Adam's Lameness in Horses*, 4th edn, Philadelphia, Lea and Febiger.
- Stashak E S (1991). *Equine Wound management*. Philadelphia; London: Lea and Febiger.
- Turner A S and McIlwraith C W (1989) *Techniques in Large Animal Surgery*, 2nd ed, Philadelphia, Lea and Febiger (UK, Bailliers Tinal).
- Vet Clinics of North America: Symposium on Equine Lameness (1980) *Large Animal Practice* 2:1.
- Vet Clinics of North America: *Large Animal Practice Vol 5:2* (1983) *Equine Orthopaedic Surgery*.

Vet Clinics of North America: Equine Practice 5:1 (1989) The Equine Foot.
Vet Clinics of North America: Equine Practice 3:2 (1987) Neurological Diseases.
Vet Clinics of North America: Equine Practice 2:1 (1986) Diagnostic Ultrasound.
Vet Clinics of North America: Equine Practice 6:1 (1990) Racetrack Practice.
Vet Clinics of North America: Equine Practice 6:3 (1990) Principles and Techniques of Equine Anaesthesia.
Vet Clinics of North America: Equine Practice 7:2 (1991) Advanced Diagnostic Techniques.
Vet Clinics of North America: Equine Practice 8:2 (1992) Examination for Purchase.
Vet Clinics of North America: Equine Practice 9:1 (1993) The Equine Head.
Vet. Clinics of North America: Equine Practice 10:2 (1994) Tendon and Ligament Injuries I
Vet. Clinics of North America: Equine Practice 11:2 (1995) Tendon and Ligament Injuries II
Vet. Clinics of North America: Equine Practice 12:2 (1996) New Surgical Techniques and Instrumentation
Vet. Clinics of North America: Equine Practice 13:1 (1997) Selected Neurologic and Muscular Diseases.
Vet. Clinics of North America: Equine Practice 15:1 (1999) Back Problems.

Wyn-Jones G (1988) Equine Lameness, Oxford, Blackwell.

Journals and Other Sources of Reference

Candidates are encouraged to read about their subject in current Journals.

American Journal of Veterinary Research.
Veterinary Record.
Equine Veterinary Journal including Supplements and Equine Veterinary Education.
Proceedings of meetings of the American Association of Equine Practitioners.
Veterinary Radiology & Ultrasound (previously Journal of the American Veterinary Radiology Society).
Journal of the American Veterinary Medical Association.
Veterinary Clinics of North America: Equine Practice.
Legislation affecting the veterinary profession in the United Kingdom, London RCVS. Price £8.00 for the 6th (1991) edition.
Veterinary Surgery.

Originated March 1994
Revised July 1999
Revised July 2000

EQUINE DIPLOMAS – READING LISTS

There are no separate reading lists for the Diplomas as candidates at this level are expected to be familiar with all literature in the area of their elective and most particularly so in the topic of their dissertation or submitted papers. Candidates are recommended to make use of the RCVS Library and Information Service for this purpose (<http://www.rcvslibrary.org.uk> , e-mail - library@rcvs.org.uk or telephone 020 7222 2021). Candidates should also seek advice on suitable reading matter from their Advisers.

April 2003

DIPLOMA IN EQUINE ORTHOPAEDICS

Details of the veterinary practice in which experience is being gained to meet the requirements of the byelaws (see schedules) including at least three years of substantial experience in the subject concerned.

(If more than one establishment, please photocopy this form and complete in respect of each such establishment)

1. Name of practice and address

2. Date of commencement
of employment _____

(and date of leaving if you are no longer employed at this
address: _____)

3. Numbers of veterinary surgeons usually working in your place of employment

4. Approx. total practice case load per month

which includes _____ equine cases per month.

5. Proportion of the practice case load which you personally undertake:

____ % of total cases per month (= approx. ____ cases per month)

____ % of total equine cases per month (= approx. ____ equine cases per month)

6. Equipment and facilities available for the examination and medical and surgical treatment of equine cases.

7. Please describe overleaf the range of equine cases with which you deal, and give the percentage of your time which you spend on equine work.

(if more than one practice is concerned, a separate copy of this form should be completed in respect of each such practice.)

Signature

Date

Please enclose SAE for acknowledgement

8. Please describe the range of equine cases with which you deal, and give the percentage of your time which you spend on equine work.

(if more than one centre is concerned, a separate copy of this form should be completed in respect of each such practice.)

Signature

Date

Please enclose SAE for acknowledgement

DIPLOMA IN EQUINE ORTHOPAEDICS

Dissertation

Application to be completed and returned to the RCVS, Belgravia House, 62-64 Horseferry Road, London SW1P 2AF no later than 1 November.

PLEASE SUBMIT ORIGINAL AND TWO COPIES OF ALL FORMS

1. **NAME** in full (block letters)

2. **PROPOSED TITLE FOR DISSERTATION** - giving a brief outline

Signature _____ Date _____
Please enclose SAE for acknowledgement

DIPLOMA IN EQUINE ORTHOPAEDICS

Application for FINAL approval of experience and for permission to submit an entry to the next examination

to be completed and returned to the RCVS, Belgravia House, 62-64 Horseferry Road, London SW1P 2AF by **1 November**.

PLEASE SUBMIT ORIGINAL AND TWO COPIES OF ALL FORMS

1. **NAME** in full (block letters)

2. **DEGREES/DIPLOMAS/CERTIFICATES** _____ (in abbrev.form)

3. **ADDRESS** for all correspondence (block letters)

4. (a) **TELEPHONE No(s)** (for contact during day)
 (b) **FAX No.** (for contact during day)
 (c) **E Mail**

5. **DATE OF ENROLMENT** _____ (MONTH/YEAR)

If application for enrolment is being submitted concurrently with this application please state 'concurrent'.

6. **PERIODS OF EXPERIENCE BEING OFFERED** to meet the requirements of the byelaws

Veterinary Practice or other branch of profession (name and address)	Period of employment (from/to)	Certified by Adviser

If there has been any change in the work-load of the establishment, or in your personal work-load, since you applied for enrolment, please give details below:

7. ATTENDANCE AT RELEVANT SHORT COURSES

Title of course attended: _____

Dates and venue: _____

Please send a photocopy of your RCVS CPD Record Card for all CPD events attended for the period of experience you are offering.

8. OTHER INVOLVEMENT IN RELATION TO EQUINE ORTHOPAEDICS

List any attendances at relevant congresses, conferences, meetings, symposia, etc., with dates:

9. PUBLICATIONS/ARTICLES/PAPERS/LECTURES

Give details below (including any involvement in the instruction of others):

10. OTHER POSTGRADUATE STUDIES

During the period of experience being offered, have you been or are you studying for any other postgraduate qualification? YES/NO

If yes, please give brief details:

11. **SUBMITTED WORK**

The subjects of the **two** first author papers and **three** principal author papers case report which I intend to submit for the examination are as follows:-

12. **I HEREBY APPLY FOR FINAL APPROVAL OF EXPERIENCE AND FOR PERMISSION TO SUBMIT AN ENTRY TO THE NEXT DIPLOMA EXAMINATION IN EQUINE ORTHOPAEDICS**

I certify that the period of experience being offered has not been/is not being offered to meet the requirements of the byelaws for any other RCVS Certificate or Diploma.

Delete section 12 if you do not intend to sit the next examination.

Please note that only those candidates who now confirm their intention to sit will have their examination entry accepted at the closing date.

13. **CONFIRMATION OF INTENT TO SIT THE EXAMINATION**

I confirm my intention, if approval of experience is granted, of submitting an entry to the next examination.

Signature _____ Date

Please enclose SAE for acknowledgement

The following section should be completed by your Adviser.

I confirm that I am acting as this candidate's Adviser.

Name _____

Signature _____ Date _____

Royal College of Veterinary Surgeons
EQUINE BOARD

DIPLOMA IN EQUINE ORTHOPAEDICS

TECHNIQUES AND PROCEDURES

I CERTIFY THAT THE FOLLOWING CANDIDATE IS GENERALLY COMPETENT AND EXPERIENCED IN THE PERFORMANCE OF THE TECHNIQUE/PROCEDURE COUNTERSIGNED BELOW:

Candidate:

Full name (in blocks)

Adviser's signature
and date

All Techniques as listed for Certificate (a. – h.)

- a. Radiography including film processing and film reading.
- b. Principles of ultrasonography and interpretation of ultrasonograms.
- c. Surgical techniques: periosteal transection and elevation; transphyseal bridging, inferior check ligament desmotomy, palmar annular ligament desmotomy, palmar digital neurectomy, desmotomy of collateral ligaments of navicular bone.
- d. Application of part or full limb cast
- e. Surgical techniques including the more common internal fracture fixation techniques; techniques of aseptic surgery.
- f. Neurological examination
- g. Methods for diagnosis of lameness (syllabus 3(c)).
- h. Methods of treatment (syllabus 3(g)).
PLUS FOR DIPLOMA

- a. Arthroscopic surgery of the carpus, fetlock, distal, interphalangeal, femoropatellar, femorotibial and tarsocrural joints
- b. Repair of tendon lacerations.
- c. Superior check ligament desmotomy.
- d. Repair of fractures of the olecranon, third carpal bone, metacarpus/metatarsus, proximal, middle and distal phalanges, and proximal sesamoid bones.
- e. Repair of skull or jaw fractures.
- f. Arthrodesis of the distal joints of the hock.
- g. Arthrodesis of the proximal interphalangeal joint.

To be certificate by a colleague in practice, normally a senior colleague, and/or an Adviser:

Name of Persons who have signed above (in Blocks)

.....

DIPLOMA IN EQUINE ORTHOPAEDICS

Candidates should refer to the lists of Specialists and Diploma holders published in Section 3 of the RCVS Register of Members

April 2003

THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN EQUINE ORTHOPAEDICS

MONDAY 10 JULY 2006

PAPER I
BASIC SCIENCES

(3 hours)

SECTION A
[1 ½ hours]

Candidates are required to answer **ONE** of the following **two** questions

Allow 1½ hours.

Illegible handwriting or failure to answer the question in the form requested may result in examiners being unable to award marks for information which candidates intended to convey

If insufficient time is available to answer a question fully, it will be acceptable to complete in note form.

1. **Discuss** the mechanisms that enable bone mass and architecture to be optimised in relation to functional demands; **briefly describe** the condition of "sore shins" in the young Thoroughbred racehorse in relation to functional adaptation.
2. **Discuss** the role of tendons in locomotor efficiency in the horse.

P.T.O. for Section B

THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN EQUINE ORTHOPAEDICS

MONDAY 10 JULY 2006

PAPER I
BASIC SCIENCES

SECTION B
[1 ½ hours]

Candidates are required to answer **all TEN** of the following questions.

Allow 9 minutes per question.

Illegible handwriting or failure to answer the question in the form requested may result in examiners being unable to award marks for information which candidates intended to convey. Use diagrams where necessary

3. **Explain** the forces acting on the distal phalanx of a standing horse and how these may change if the distal phalanx rotates as a result of laminitis.
4. **Draw a labelled diagram** to show the load deformation plot curve of bone as a material, indicate the aspects that would be used to determine modulus and energy to failure.
5. **Describe** the mechanisms by which glucosamine hydrochloride and chondroitin sulphate may be beneficial in the management of osteoarthritis.
6. **Discuss briefly** the terms 'modelling' and 'remodelling' as applied to bone.
7. What are the characteristics of adult mesenchymal stem cells?
8. **Briefly explain** the term "evidence based medicine".
9. **List** the factors which influence subchondral bone thickness.

P.T.O. for Questions, 10, 11 and 12

10. Give reasons for long bone diaphyses resembling a hollow tube. Which aspect will most influence strength?
11. **Describe** the biomechanical effects of elevation of the heel of a forelimb.
12. **Draw a diagram** to illustrate the structure of a synovial joint; **briefly** indicate the function of **each** structure within this joint.

THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN EQUINE ORTHOPAEDICS

MONDAY 10 JULY 2006

**PAPER II
CLINICAL ASPECTS
(3 hours)**

Candidates are required to answer **FIVE** of the following **six** questions.

Allow 35 minutes per question.

Illegible handwriting or failure to answer the question in the form requested may result in examiners being unable to award marks for information which candidates intended to convey

If insufficient time is available to answer a question fully, it will be acceptable to complete in note form.

1. **Discuss** factors that influence movement of the equine thoracolumbar region.
2. **Discuss** the aetiopathogenesis of condylar fractures of the third metacarpal bone and identify risk factors.
3. **Discuss** the management of subchondral bone cysts in horses.
4. **Discuss** the significance of methicillin-resistant *Staphylococcus aureus* (MRSA) in equine surgery.
5. **Discuss** methods of gait analysis and how they may assist in lameness assessment.
6. **Discuss** the extent to which local anaesthetic solutions can help to localise sources of pain within the foot.
