

## **PREPARING FOR THE CERTIFYING EXAMINATION OF THE AMERICAN COLLEGE OF THERIOGENOLOGISTS**

### **Timeline:**

#### ***Standard (residency) route:***

- Candidate attains veterinary medical degree
- Candidate completes one (1) year of clinical practice or its equivalent
- Candidate completes a minimum of two (2) years in an established / supervised training program that includes experience in teaching, research, and/or practice of theriogenology
- Candidate applies to take the Certifying Examination by November 1 of the year prior to the year of taking the examination

#### ***Mentorship (alternate) route:***

- Candidate attains veterinary medical degree
- Candidate completes a minimum of six (6) years of practice experience with a major emphasis in theriogenology
- Candidate applies by November 1 after at least four (4) years of practice experience as described above for approval for two (2) years of study with an approved mentor (see Mentorships)
- Candidate applies to take the Certifying Examination by November 1 of the years from two (2) to four (4) years after approved for study

### **General Information:**

The field of theriogenology is broad, encompassing many disciplines and involving several domestic species. The Certifying Examination will include fields of specialty beyond the recent experience of most theriogenologists. Material in the examination will include the reproductive processes of food-producing animals (cattle, goats, sheep and swine), companion animals (cats, dogs and horses) and, to a limited extent, laboratory, avian, aquatic and exotic animals.

We suggest the candidate attain a broad general base of knowledge in theriogenology as it applies to anatomy, embryology, physiology, pathology, microbiology, biotechnology, endocrinology, and clinical medicine and surgery. The theriogenologist who is a specialist in a basic science must be aware of applied theriogenology and the clinician or practitioner should review the basic aspects of theriogenology. Candidates should not expect themselves to read all the material on the “Suggested Reading” list. Selections from the reading list that follows may be used to help applicants review species or disciplines from outside their areas of expertise. A study guide is available on this website to remind candidates of areas they may wish to review.

The Certifying Examination will consist of a written examination (four sessions) and a practical examination (one session). The first two written sessions will include 25 multiple-choice questions and five essay questions, covering all species. The third written

session will include 25 multiple-choice questions covering all species and 25 multiple-choice questions from the candidate's chosen area of emphasis. The fourth session will consist of ten essay questions from the candidate's chosen area of emphasis. These sessions will give the candidate an opportunity to display a greater depth of knowledge in an area of the candidate's choice; areas of emphasis that may be chosen are bovine, equine, porcine, small animal and multi-species. The practical examination will consist of a series of projected pictures, each accompanied by written questions that will require only short answers. Please note that the order of the examination sessions may vary from year to year, at the discretion of the Examining Committee.

The Examining Committee requests that candidates express themselves fully in responding to the essay questions and show that they are, indeed, specialists in theriogenology. The candidate's grade will be derived from multiple-choice questions (40%), essay questions (40%) and practical questions (20%). The approximate make-up of the examination will be 20% bovine, 20% equine, 20% canine / feline, 10% ovine / caprine, 10% porcine, 10% exotics and 10% basic sciences. Candidates that obtain an overall score of at least 70% correct will pass the Certifying Examination. Notification whether or not a candidate achieved a passing score will be provided by mail within three (3) months of the examination date. Candidates failing to achieve a passing score must retake the examination in a subsequent year and will be required to repeat both the written and practical sections of the examination. Candidates that do not achieve a passing score will be provided information on their performance to help them in preparing for reexamination. Information provided will consist of percentage correct on each portion (multiple-choice, essay and practical) of the exam and percentage correct based on species, of the combined essay / multiple-choice portion.

### **Suggested Reading Materials:**

#### **BOOKS**

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Barth AD and Oko RJ. (1989) *Abnormal Morphology of Bovine Spermatozoa*, Iowa State University Press, Ames IA.

Bonagura JD. (1995) *Current Veterinary Therapy: Small Animal Practice XII*, WB Saunders Co., Philadelphia PA.

Bonagura JD. (2000). *Current Veterinary Therapy: Small Animal Practice XIII*, WB Saunders Co., Philadelphia PA.

Buergelt C. (1997) *Color Atlas of Reproductive Pathology of Domestic Animals*, Mosby, St. Louis MO.

Burke TS. (1986) *Small Animal Reproduction and Infertility*, Lea and Febiger, Philadelphia PA.

Cupps PT. (1991) *Reproduction in Domestic Animals*, Academic Press, New York.

- England G. (1998) *Allen's Fertility and Obstetrics in the Dog*, Blackwell Science, Oxford.
- England G. (1996) *Allen's Fertility and Obstetrics in the Horse*, Blackwell Science, Oxford.
- Feldman EC and Nelson RW. (1996) *Canine and Feline Endocrinology and Reproduction*, WB Saunders Co., Philadelphia PA
- Fowler ME. (1989) *Medicine and Surgery of South American Camelids*, Iowa State University Press, Ames IA.
- Ginther OJ. (1995) *Ultrasonic Imaging and Animal Reproduction: Horses (Book 2)*, Equiservices Publishing, Cross Plains WI.
- Hafez ESE. (2000) *Reproduction in Farm Animals*, Lea and Febiger, Philadelphia PA.
- Howard and Smith (eds). (1999) *Current Veterinary Therapy 4: Food Animal Practice*, WB Saunders Co., Philadelphia PA.
- Johnston SD, Root Kustritz MV and Olson PN. (2001) *Canine and Feline Theriogenology*, WB Saunders Co., Philadelphia PA.
- Jubb KVF, Kennedy PC and Palmer N. (1993) *Pathology of Domestic Animals*, Academic Press, New York.
- Kimberling CV. (1988) *Jensen and Swift's Diseases of Sheep*, Lea and Febiger, Philadelphia PA.
- Kirk RW. (1986) *Current Veterinary Therapy: Small Animal Practice IX*, WB Saunders Co., Philadelphia PA.
- Kirk RW. (1989) *Current Veterinary Therapy: Small Animal Practice X*, WB Saunders Co., Philadelphia PA.
- Kirk RW. (1992) *Current Veterinary Therapy: Small Animal Practice XI*, WB Saunders Co., Philadelphia PA.
- Kirkbride CA. (1984) *Laboratory Diagnosis of Abortion in Food Animals*, American Association of Veterinary Laboratory Diagnosticians, Madison WI.
- Leman AD, Straw BE, Mengeling WL, et al. (1992) *Diseases of Swine*, Iowa State University Press, Ames IA.

- Linklater KA and Smith MC. (1993) *Color Atlas of Diseases and Disorders of the Sheep and Goat*, Mosby-Year Book Europe Limited and Wolf Publishing Co., Aylesbury, England.
- McEntee K. (1990) *Reproductive Pathology of Domestic Mammals*, Academic Press, San Diego CA.
- McKinnon AO and Voss JL. (1993) *Equine Reproduction*, Lea and Febiger, Philadelphia PA.
- Morrow DA. (1986) *Current Therapy in Theriogenology*, WB Saunders Co., Philadelphia PA.
- Neely DP, Lui K and Hillman RB. (1983) *Equine Reproduction*, Hoffman, Lakoche, Inc., Nutley NJ.
- Pycock JF. (1997) *Self-Assessment Color Review of Equine Reproduction and Stud Medicine*, Iowa State University Press, Ames IA.
- Radostits OM, Leslie KE, Fetrow J. (1994) *Herd Health: Food Animal Production Medicine*, WB Saunders Co., Philadelphia PA.
- Roberts SJ. (1986) *Veterinary Obstetrics and Genital Diseases*, Edwards Bros., Ann Arbor MI.
- Root Kustritz MV (ed). (2003) *The Practical Veterinarian: Small Animal Theriogenology*, Butterworth-Heinemann, St. Louis MO.
- Senger PL. (2003) *Pathways to Pregnancy and Parturition*, Current Conceptions Inc., Seattle WA.
- Simpson GM, England GCW and Harvey M (eds). (1998) *Manual of Small Animal Reproduction and Neonatology*, British Small Animal Veterinary Association, Cheltenham, England ([www.bsava.com](http://www.bsava.com)).
- Smith BP. (1996) *Large Animal Internal Medicine*, Mosby-Year Book, St. Louis MO.
- Smith MC and Sherman DM. (1994) *Goat Medicine*, Lea and Febiger, Philadelphia PA.
- Varner DD, Schumacher J, Blanchard TL and Johnson L. (1991) *Diseases and Management of Breeding Stallions*, American Veterinary Publications, Goleta CA.
- Veterinary Clinics of North America – Small Animal Practice*, WB Saunders Co., Philadelphia PA.
- Davidson AP. Clinical Theriogenology (2001).
  - Johnston SD and Romagnoli SE. Canine Reproduction (1991).

*Veterinary Clinics of North America – Large Animal Practice*, WB Saunders Co., Philadelphia PA.

- BonDurant RH. Bovine Reproduction (1987).
- Braun WF and Youngquist RS. Female Bovine Infertility (1993).
- Johnson LW. Llama Medicine (1989).
- Johnson LW. Update on Llama Medicine (1994).
- Kasari TR and Wikse SE. Perinatal Mortality in Beef Herds (1994).
- Miller RB. Diagnosis of Abortion (1994).
- Tubbs RC and Leman AD. Swine Reproduction (1992).
- Van Camp SD. Bull Infertility (1997).

*Veterinary Clinics of North America – Equine Practice*, WB Saunders Co., Philadelphia PA.

- Blanchard TL and Varner DD. Stallion Management (1992).
- Hughes JP. Equine Reproduction (1980).
- Squires EL. Diagnostic Techniques and Assisted Reproductive Technology (1996)
- Van Camp SD. Reproduction (1988).

Walker DF and Vaughan JT. (1980) *Bovine and Equine Urogenital Surgery*, Lea and Febiger, Philadelphia PA.

Youngquist RS. (1997) *Current Therapy in Large Animal Theriogenology*, WB Saunders Co., Philadelphia PA.

## **JOURNALS (including supplements)**

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*American Journal of Veterinary Research*

*Animal Reproduction Science*

*Andrology*

*Biology of Reproduction*

*Compendium on Continuing Education*

*Domestic Animal Endocrinology*

*Equine Veterinary Journal*

*Journal of the American Veterinary Medical Association*

*Journal of Andrology*

*Journal of Animal Science*

*Journal of Dairy Science*

*Journal of Reproduction and Fertility*

*Reviews of Reproduction* (by JRF)

*Theriogenology*

*Veterinary Pathology*

## **PROCEEDINGS AND MANUALS**

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*Manual of the International Embryo Transfer Society (1998)*

*Manuals and Fact Sheets from the Society for Theriogenology ([www.therio.org](http://www.therio.org))*

*Proceedings from Annual Conferences of the American Association of Bovine Practitioners*

*Proceedings from Annual Conferences of the American Association of Equine Practitioners*

*Proceedings from Annual Conferences of the American Association of Swine Practitioners*

*Proceedings from Annual Conferences and Symposia of the Society for Theriogenology*

*Proceedings from the International Congress on Animal Reproduction and Artificial Insemination*

*Proceedings from the International Symposium on Equine Reproduction (either JRF supplement or BOR Monographs)*