

Virginia Tech Equine Studies Program at Middleburg

The Department of Animal and Poultry Sciences and the College of Agriculture and Life Sciences are proud to offer an innovative, unique learning opportunity for undergraduate students of equine science. The program is based at Virginia Tech's Middleburg Agricultural Research and Extension (MARE) Center, a 420-acre facility in the heart of Northern Virginia's hunt country and new home to Virginia Tech's internationally-regarded sporthorse breeding program.

The Equine Studies Program at Middleburg allows students to actively participate in all aspects of a large-scale research facility, outreach center and commercial horse operation, while simultaneously engaging in a full semester of coursework. This is an immersive learning environment for students sincere in their desire to secure high-level employment in the horse industry and/or pursue post-baccalaureate education in veterinary or graduate school. This novel program provides substantive, real-life experiences which are truly transformative and integrate fully with traditional classroom instruction, resulting in the ultimate capstone experience.

This unique, exciting program incorporates advanced coursework which supplements that which is available on most university campuses. Courses include:

- *Equine Reproduction and Neonatal Care (4 cr) - Principles and techniques in reproductive physiology and herd management related to health, record keeping, estrus detection and manipulation, artificial insemination, semen handling, parturition and early care of neonates. Topics related to selection of breeding stock and mating decisions will also be covered. Offered Spring semesters.*
- *Equine Exercise Physiology (4 cr) – A comprehensive study of conditioning the equine athlete using the principles of exercise physiology, energetic, kinetics, and sports medicine. Anatomy and physiology as it relates to exercise, conditioning and fitness assessment, exercise intolerance, performance nutrition, and therapies will be covered. Offered Fall semesters.*
- *Equine Health and Disease (4 cr) – Management of health for optimal growth, reproduction and performance of horses. Topics to be covered will include disease and immune function, practical and scientific aspects of parasite control and vaccination protocols, hoof and dental care. Facility planning and maintenance for optimal health will be included. Offered Spring and Fall semesters.*
- *Advanced Topics in Equine Science (2 cr) – Current industry and research topics will be presented and discussed via assigned readings and discourse. Additionally, formal instruction will be given in research methodology, scientific inquiry, problem solving and critical and creative thinking. Individual and group projects will be assigned. Offered Spring and Fall semesters.*
- *Equine Internship (2 cr) – In addition to their academic efforts, students have significant responsibilities related to horse and facility management. Duties include basic horse care and feeding; non-emergency equine medical care; training and handling of young horses; facility maintenance; and activities related to extension and outreach events at the MARE Center. Offered Spring and Fall semesters.*
- *Students may also enroll in undergraduate research and/or independent study credits.*

Eligibility and Requirements:

Undergraduate, degree-seeking students currently enrolled at any college or university in the United States or Canada are welcome to apply. International students are also welcome, but should contact program administrators prior to application. Senior standing is preferred, but not required. Students should have completed basic coursework in Animal and/or Equine Science.

Students are expected to adhere to the Virginia Tech Honor Code at all times. Inappropriate behavior may be grounds for immediate dismissal from the program.

Students must provide proof of health insurance and have a valid driver's license. It is highly recommended that students bring their own vehicle.

Students must have demonstrated a sincere desire to work at a high level in the equine industry or attend graduate or veterinary school in the equine area. Students must be self-motivated, responsible, and possess a strong work ethic. In addition, they must be able to work well in team and individual settings, able to lift and carry at least 50 lb, able to deal with adverse weather conditions, competent with basic horse handling skills and have the personal maturity to operate effectively in an intense environment. Students should also be aware they will be operating as ambassadors for Virginia Tech at several equine and community events.

We are looking to accept six (6) students each semester.

Program Costs:

Students are required to live in housing on the farm. Rent will not be charged, but students will be responsible for all utility charges. Regular Virginia Tech tuition costs and university fees will apply. Students will be responsible for purchases of required textbooks and related school supplies. Students will not be responsible for costs (except meals) associated with field trips or other events for which attendance is required.

Student Selection:

Students will complete an application (see attached). Applications for Spring Semester are due October 15, while applications for Fall Semester are due April 15. Application materials will be reviewed by faculty, and students making the first cut will undergo an interview period. Video footage of students working with horses may be required. Candidates will be notified of acceptance within 30 days of application deadline. In the event that there are more qualified students than available positions, a wait list will be compiled.

Instructors:

Dr. Rebecca K. Splan, Associate Professor, holds degrees from Michigan State University (B.S. in Animal Science) and the University of Nebraska-Lincoln (M.S. and Ph.D in Animal Breeding and Genetics). In 1998 and 1999 she was a visiting scientist at Trinity College in Dublin, Ireland. Since 2000 she has been a member of the faculty at Virginia Tech, teaching undergraduate equine and genetics courses. She has helped develop several novel instructional initiatives, including the Equine Studies at Middleburg, Sporthorse Summer Internship and Equine Science Study Abroad to Germany programs. Her research involves self-regulated learning and instructional design, as well as topics related to equine genetics, conformation and biomechanics. Dr. Splan also heads Virginia Tech's internationally-recognized sporthorse breeding program. She is a well-regarded speaker in the horse industry and coordinates several major outreach events annually. Dr. Splan is a USDF Bronze Medalist, USDF "L" Graduate with Distinction and has competed to regional and national titles in dressage. She currently serves on the Board of Directors for the International Sporthorse Registry and Oldenburg Registry North America.

Dr. C. A. (Shea) Porr, Assistant Professor, received degrees from Texas A&M University (B.S. in Animal Science), the University of Florida, and Virginia Tech (M.S. and Ph.D. in Equine Nutrition and Exercise Physiology). From 1997-2004, she taught a variety of equine and animal science classes at The Ohio State University, both the main campus and at OSU's Agricultural Technical Institute, and was responsible for coordinating state-level 4-H equine extension programs. Dr. Porr then spent two years as a nutritional consultant and district manager for Buckeye Nutrition before taking a position as an Equine Extension Agent in Northern Virginia. Dr. Porr is involved in discovery, teaching, and outreach efforts at the MARE Center. Her extension programming focuses on emergency preparedness for the equine industry, and her research involves learning retention in adults as well as nutrition and exercise physiology. She currently serves on the Board of Directors for the Virginia State Animal Response Team, Virginia Horse Council, and Virginia Horse Industry Board.

Ryan Brooks, Facility Manager/Breeding Manager, earned degrees from Virginia Tech (B.S. in Animal and Poultry Sciences) and Colorado State University (M.S. in Animal Science, Equine Reproductive Physiology). He also completed farrier training at Danny Ward's Horseshoeing School. In the recent years he has worked for the IX Ranch Company in Big Sandy, MT and the William H. Miner Agricultural Research Institute in Chazy, NY. At the VT MARE Center, Ryan oversees day to day operations on the farm and is responsible for all reproductive work pertaining to the mares and stallions. Ryan brings a diverse skill-set to the MARE Center and is also an integral part of undergraduate and graduate teaching and on-going research. Some of his research interests include endocrinology of the mare, ELISA development, and management of spring transition.

For more information, please contact Dr. Splan (rsplan@vt.edu) or Dr. Porr (cporr@vt.edu)