Crystal E. Smith

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TEACHING

Teaching Assistant Professor, Animal & Nutritional Sciences **2011-Present**
West Virginia University

- Develop curriculum and deliver instruction in Equine Management Minor
- Courses include *Equine Facility Development & Management, Riding Theory & Techniques, Racehorse Industry Tour, Equine Events Management, Performance Horse Tour, Equine Safety and Handling and Careers in the Equine Industry*
- Recruit, train and manage undergraduate student workers
- Develop internship opportunities for undergraduate students
- Co-Advise Collegiate Horsemen's Association and provide support to WVU Equestrian Team

MANAGEMENT

Coordinator, WVU Reedsville Horse Unit **2011-Present**
West Virginia University

- Manage WVU Reedsville Horse Unit including daily care and feeding of teaching horses
- Make pasture management decisions and improvements, including installation of a rotational grazing system and forage plot
- Make manure management decisions and improvements, including installation of a manure storage area on a covered, non-porous pad
- Maintain relationships with Extension, Farm Personnel and the Community

EXTENSION

Extension Agent, Animal Science **2005-2010**
Virginia Cooperative Extension

- Conducted need-based equine extension programming in Northwest Virginia
- Generated resources and support for extension programming through registrations, grants, sponsorships, vendors and various media
- Recruited and retained volunteers and industry professionals for programming efforts
- Provided consultation to horse owners/managers on equine management issues
- Maintained contact with clientele through a timely newsletter, press coverage, organizational meetings and industry events
- Assisted 4-H and industry volunteers with equine events, clinics and camps

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EDUCATIONAL PROGRAMMING

Managing the Risks of Equine Enterprises
Awarded the National Association of County Agricultural Agents Search for Excellence in Livestock Production National Finalist honor for teaching horse farm managers about equine liability, insurance, and business management strategies

Equine Nutrition Series
Instills the concept of feeding forages first, teaching horse farm managers about the nutritional needs of certain classes of horses, body condition scoring, forage value and then supplementation as needed.

Equine Pasture and Manure Management Short Course
Teaches horse owners to renovate and manage pastures to meet their horses' nutritional needs, avoid toxic weeds and maintain environmentally sound land.

Caring for the Older Horse
Increases the knowledge of senior horse owners about diseases, feeding considerations and end-of-life options for older horses.

Mortality Disposal Options for Livestock Producers
Prepared a fact sheet about on-farm options for burial and composting including guidance on siting, environmental considerations and more. Constructed a demonstration site for livestock producers, Department of Environmental Quality officials and Extension Agents to learn about mortality composting.

Preparing Horse Owners and First Responders for Equine Emergencies
Teaches horse farm owners to do risk assessments and pre-planning for emergencies that can strike their locality. Develops basic horse behavior and handling skills on local first responders that may respond to barn fires, loose horses, trailer accidents and more. Currently, helping create a Community Animal Response Team for Northern Virginia.

Truck and Horse Trailer Safety Day
Instructs horse owners on selecting a trailer, matching tow vehicles to their rigs, hitching and braking considerations, inspections and safe hauling practices.

EXTENSION PUBLICATIONS

Horse Manure Management, Authored
Farm Inspection Checklist, Authored
Pre-Response Plans for Your Farm, Authored
Horse Emergency Go Kit, Authored
Mortality Disposal Options for Livestock Producers, Authored
Common Plants Causing Toxicity to Horses in Virginia, Authored
Equine Boarding Facilities in Northern Virginia, Reviewed
What to Look for in a Horse Boarding Facility, Program Content Used
Nutritional Supplementation of Horses on Pasture, Reviewed
Feeding Weanling Horses for Healthy Skeletal Development, Reviewed
National Animal Identification System Equine Fact Sheet, Reviewed
Questions and Answers about Horses and NAIS, Reviewed

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EDUCATION

The Pennsylvania State University, University Park, PA
Department of Dairy and Animal Sciences

Master of Agriculture, Animal Science, August 2005
GPA: 4.00/4.00

- Research Assistant
- Teaching Assistant

Bachelor of Science, Animal Science, May 2002

RESEARCH EXPERIENCE

Graduate Research Assistant **2004-2005**
The Pennsylvania State University
Thesis: The Impact of Equine Activities on Youth Development

- Research determined the relationship between horsemanship skills development and life skills development in youth horse program participants. Also examined the demographic characteristics of the surveyed youth.

RESEARCH PUBLICATIONS

Smith, C., A. Swinker, P. Comerford, R. Radhakrishna and T. Hoover. (2005). Profile of Youth Horse Program Participants and the Relationship Between Horsemanship Skills Development and Life Skills Development [Abstract]. *Equine Science Society's Nineteenth Annual Symposium Proceedings*, *49-50*.

Smith, C., A. Swinker, P. Comerford, R. Radhakrishna and T. Hoover. (2005). Impact of Equine Activities on Youth Development [Abstract]. *The American Youth Horse Council's 2005 National Youth Horse Leader's Symposium and Program Directory*, 32.

RESEARCH PRESENTATIONS

Porr, S. and C. Smith. (2011, June). *Static Composting of Equine Mortality*. Presented at the Equine Science Society Symposium, Murfeesboro, TN.

Smith, C.E., A. Swinker, P. Comerford, R. Radhakrishna and T. Hoover. (2005, June). *Profile of Youth Horse Program Participants and the Relationship Between Horsemanship Skills Development and Life Skills Development.* Presented at the Nineteenth Annual Equine Science Society Symposium, Tucson, AZ.

Smith, C.E., A. Swinker, P. Comerford, R. Radhakrishna and T. Hoover. (2005, February). *Impact of Equine Activities on Youth Development.* Presented at The American Youth Horse Council's National Youth Horse Leaders Symposium, University Park, PA.

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TEACHING EXPERIENCE

Teaching Assistant **Spring 2005**
The Pennsylvania State University
Course: Contemporary Issues and Careers in the Equine Industry

- Responsible for delivery of select presentations on contemporary issues and career opportunities to undergraduate students. Assisted in organization of classroom lectures and materials and advised students on research topics.

RELATED WORK EXPERIENCE

Equine Industry Liaison Intern **Summer 2005**
The Pennsylvania Department of Agriculture, Harrisburg, PA

- Attended equine events as a representative of the Pennsylvania Equine Industry
- Responsible for coordinating site visits and event coverage to generate media for equine industry promotional materials
- Generated purpose statement, organized logistics and generated contacts for the Pennsylvania Equine Industry Database
- Consulted on implementation of Equine Checkoff Program

Ag Progress Days Equine Experience Events Coordinator **2004 & 2005**
The Pennsylvania State University

- Responsible for the advertising and promotion of "The Equine Experience"
- Coordinated demonstrations, lectures and commercial exhibits for the event
- Recruited and managed volunteers that introduced exhibitors and assisted with the set-up and tear-down of the event grounds
- As part of a team, conducted an evaluation of the event

Barn Manager **2002-2004**
Crystal Creek Acres, Bloomsburg, PA

- Cared for approximately twenty horses including feeding, cleaning stalls, daily turnout, and made various equine management decisions
- As part of a team, maintained all equine facilities and 15 acres of land for pasturing, riding, and therapeutic use of horses
- Developed lesson plans, goals and instructed children and adults during western and hunt-seat riding lessons
- Responsible for breaking and training of performance horses

Veterinary Assistant **2002-2003**
Elizabeth Mank, VMD and Michael Bowman, DVM, throughout the Northeast

- Assisted in reproductive examinations and insemination routines
- Assisted in both preventative medicine and emergency procedures
- Prepared horses for joint injections and other sports medicine regimens
- Communicated after-care instructions with clientele and processed appointments

Assistant Trainer **2000-2002**
Lora Knelly Quarter Horses, Berwick, PA

- Assisted in the breaking and training of performance horses
- Assisted in instruction of all-around youth competitors
- Handled and fit yearlings for sale

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RELATED WORK EXPERIENCE (continued)

Cooperative Extension Intern **Summer 2000**
Penn State Cooperative Extension, Columbia County, PA

- Assisted 4-H Horse and Pony Club Agent in all aspects of program
- Mentored and chaperoned 4-H youth at State events
- Coached county horse bowl team and supported team during competition
- Managed county 4-H horse shows with the help of numerous volunteers
- Developed a livestock facilities proposal with a planning committee

Purina Mills, Inc. Extern **Spring 2000**
Cindy Robinson, Bellefonte, PA

- Shadowed a Purina Mills equine representative to gain knowledge of the field
- Learned about Purina products, private farm-calls, and the retail industry
- Participated in cold and scheduled calls to potential and current clientele
- Learned about the production of Purina products by touring a feed mill

Dedicated Volunteer **1992-present**
Eos Therapeutic Riding Center, Bloomsburg, PA

- Serve with other volunteers to assist mentally and physically challenged individuals during therapeutic riding sessions
- Developed clienteles' horsemanship skills through experiential instruction
- Assist with daily care of horses, equipment and facilities used in the therapeutic riding program
- Provide administrative support to the executive director of the program

SKILLS

Extensive experience in horse production and management
Advanced horsemanship, handling, training and judging skills
Extensive experience in program development and evaluation
Extensive experience in event coordination and management
Extensive experience in volunteer program management
Advanced instructional, written and verbal communication skills
Extensive teaching and instructional experience
Extensive experience in advising and mentoring students
Proficient in qualitative and quantitative research methods
Proficient in data analysis and interpretation
SPSS, EXCEL, Turning Point
Microsoft Applications

HONOR SOCIETIES AND PROFESSIONAL ORGANIZATIONS

American Registry of Professional Animal Scientists
Virginia Extension Service Association, member
Virginia Association of Agriculture Extension Agents, member
Coaly Honor Society for Excellence and Leadership in Agriculture, member
Penn State Stockmen's Club, member

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EXTENSION AND TEACHING AWARDS

Block & Bridge Club Horse Judging Contest Coach, High Scoring Reasons Junior and Senior Teams, 2010
VA State 4-H Horse Judging Contest Coach, High Junior Team Overall, 2009
Block & Bridle Club Hippology Contest Coach, High Junior Team Overall, 2009
NACAA National Finalist Award Winner, Direct Mail Piece, 2009
NACAA State Communications Award, Direct Mail Piece, 2009
Northwest District Program Marketing Award, 2009
Northwest District Program Marketing Award, 2008
Northwest District Program Evaluation Award, 2008
National Association of County Agricultural Agents Search for Excellence National Finalist, 2008
VA State 4-H Horse Judging Contest Coach, High Junior Team Overall, 2008
Block & Bridle Club Hippology Contest Coach, High Junior Team Overall, 2008
Virginia Association of Agricultural Extension Agents Communications Award, 1st Place Newsletter, 2008
Virginia Association of Agricultural Extension Agents Communications Award, 1st Place Direct Mail Piece, 2008
Northwest District Program Evaluation Award, 2007
Outstanding 4-H Alumni Award, Warren County, 2007
National Association of County Agricultural Agents Poster Contest, 3rd Place, 2007
Virginia Association of Agricultural Extension Agents Communications Award, 1st Place Direct Mail Piece, 2007
Virginia Cooperative Extension In-Service Poster Contest, 3rd Place, 2007

UNIVERSITY SERVICE

West Virginia University

- Co-Advisor, Collegiate Horsemen's Association
- Supporter, Equestrian Team
- Supporter, Extension Service Program

Virginia Tech

- Contributor, State 4-H Horse Program
- Coach, State and Local 4-H Horse Judging Teams
- Clinician, 4-H Clinics and Camps

The Pennsylvania State University

- Steward, Pennsylvania State 4-H Horse Show

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GRADUATE COURSE WORK

AEE 520 RESEARCH METHODS IN AG & EXTENSION EDUCATION
A course in research methodology involving the study of foundations, methods and procedures of social and educational research.

AEE 521 APPLIED BASIC DATA ANALYSIS
A course emphasizing on data analysis, tailored to student research.

AN SC 590 COLLOQUIUM
A course focused on proper presentation of research to various audiences and on critical thinking and question formation.

AN SC 597A READINGS IN ANIMAL SCIENCE
A course focused on exploration of classical papers in Animal Science.

AN SC 600 THESIS RESEARCH
Credits for independent work on student's thesis research.

AN SC 602 SUPERVISED EXPERIENCE IN COLLEGE TEACHING
A course promoting experience in developing, organizing, and conducting lectures/laboratories; evaluation and counseling students and related resident education activities.

STAT 500 APPLIED STATISTICS
A course in descriptive statistics, hypothesis testing, power, estimation, confidence intervals, regression, one- and 2-way ANOVA, Chi-square tests, diagnostics.

YFE 550 PROGRAM DEVELOPMENT AND EVALUATION IN YOUTH, FAMILIES AND COMMUNITIES
A course providing basic understanding of the program evaluation process, concepts and theories and the expertise needed to design and conduct systematic evaluation in extension youth, family and community programs.

YFE 555 VOLUNTEER PROGRAM MANAGEMENT
A course on the study and application of concepts and principles of volunteerism and administration relevant to volunteer program management.

RELEVANT UNDERGRADUATE COURSE WORK

AGRO 028 PRINCIPLES OF CROP MANAGEMENT
A course covering the scope of plant anatomy and physiology, as well as crop and soil conservation and management.

AN SC 001 INTRODUCTION TO ANIMAL SCIENCE
A course covering the scope of animal and poultry science; genetic, physiological, nutritional and health factors associated with animal production.

AN SC 205 MEAT SCIENCE AND TECHNOLOGY
A course highlighting food animal physiology, slaughter techniques and safe handling practices.

AN SC 290 CAREERS IN ANIMAL AGRICULTURE
A course highlighting potential career paths for Animal Science undergraduate students.

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RELEVANT UNDERGRADUATE COURSE WORK (continued)

AN SC 297A PARTNERS IN AGRIBUSINESS
An externship opportunity for undergraduate students in Animal Science.

AN SC 297B LIVESTOCK MERCHANDISING
A sales and marketing experience for undergraduate students; coordinated and conducted the Penn State Sheep Sale.

AN SC 301 PRINCIPLES OF ANIMAL NUTRITION
A course covering nutrients and their metabolism, nutritional requirements of livestock, nutritional value of various feeds and principles of ration formulation.

AN SC 322 PRINCIPLES OF ANIMAL BREEDING
A course highlighting the fundamental principles of genetics as applied to breeding farm animals.

AN SC 327 HORSE PRODUCTION AND MANAGEMENT
A course covering the principles of selection, breeding, feeding, management and the marketing of horses.

AN SC 400 APPLIED MANAGEMENT PRINCIPLES
A course applying business management skills to the animal production environment.

AN SC 407 ADVANCED HORSE PRODUCTION AND MANAGEMENT
An intensive course on horse production and management, including a business plan for an equine business.

AN SC 420 ANIMAL NUTRITION AND FEED TECHNOLOGY
A course highlighting nutrient sources and modes of delivery for animal production systems.

AN SC 423 COMPARTIVE ANIMAL PHYSIOLOGY
A course covering physiological systems of all livestock species.

AN SC 431W PHYSIOLOGY OF MAMMALIAN REPRODUCTION
A course covering the physiological processes of reproduction in animals, including the use of current and emerging technologies.

AN SC 432 TECHNIQUES IN CATTLE REPRODUCTION
A practicum on artificial insemination for undergraduate students; learned skills on Penn State dairy and beef cattle as well as pony research herd.

AN SC 490 COLLOQUIUM
A practicum for presenting animal science related research