

## Crystal E. Smith

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### EDUCATION

#### **West Virginia University, Morgantown, WV**

College of Education & Human Services

Doctor of Education, Instructional Design & Technology, May 2016

*Design and Development of an Online Course for Careers in the Equine Industry*

GPA: 4:00/4:00

#### **The Pennsylvania State University, University Park, PA**

Department of Dairy and Animal Sciences

Master of Agriculture, Animal Science, August 2005

*Horsemanship and Life Skills of Youth in Horse Programs*

GPA: 4.00/4.00

Bachelor of Science, Animal Science, May 2002

### TEACHING

#### **Teaching Associate Professor, Animal & Nutritional Sciences**

**2011-Present**

West Virginia University

- Develop curriculum, deliver instruction, and advise students in the Equine Studies minor
- Courses include *Intro to Equine Care & Use, Advanced Horse Production, Equine Facility Development & Management, Riding Theory & Techniques, Racehorse Industry Tour, Equine Events Management, Performance Horse Tour, Ireland Horse Industry Tour, Equine Safety and Handling, and Careers in the Equine Industry*
- Recruit, train, and manage undergraduate student workers
- Develop internship and career development opportunities for undergraduate students
- Maintain an active social media presence to market the equine studies program
- Serve on the Division of Animal & Nutritional Sciences Curriculum Committee
- Serve on the Division of Animal & Nutritional Sciences Advisory Committee
- Co-Advise the American Collegiate Horsemen's Association
- Advise WVU Collegiate Horsemen's Association
- Advise WVU Equestrian Teams

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## MANAGEMENT

### Horse Unit Manager, JW Ruby Research Farm

2011-Present

West Virginia University

- Committee Chair, to direct the redevelopment of the JW Ruby Research Farm and Hazel Ruby McQuain Equine Educational Center
- Manage the daily care, feeding, and fitness of teaching herd with a team of working students
- Manage the rental of the facility for outside events including scheduling, contracting, recordkeeping, and budgeting
- Maintain facilities including pastures, manure management, and buildings with a team of working students
- Maintain relationships with Extension, farm personnel, and the community

## ENGAGEMENT

- WVU Foundation Endowment, \$50,000 private dollars, 2016-2021
- Davis College Faculty Development, \$10,000 faculty enhancement grant, 2019-2020
- WVUSGA, \$1512 Collegiate Horsemen's grant, 2019
- Bill and Sandy Coffindafer Agricultural Internship funding, \$500 private dollars, 2019
- Davis College Faculty Development, \$1474.50 faculty enhancement grant, 2018-2019
- Scott Electric Foundation, \$6500 grant, 2018
- WVUSGA, \$1575 Collegiate Horsemen's grant, 2018
- Delaplaine Foundation, \$1000 WVU Equine Studies grant, 2018
- Davis College Faculty Development, \$5000 faculty enhancement grant, 2017-2018
- Ruby Foundation, \$6.732 million Equine Educational Center, 2015-2017
- WVUSGA, \$1090 WVU Collegiate Horsemen's grant, 2017
- WVU Foundation Furnish and Finish Campaign, \$11,650 private dollars, 2016-2017
- Davis College Faculty Development, \$5000 faculty enhancement grant, 2016-2017
- CHS Foundation, \$1000 program support grant, 2016-2017
- WVU Faculty Travel Grant, \$700 faculty travel grant, 2016-2017
- Delaplaine Foundation, \$1000 WVU Equine Studies grant, 2016
- CHS Foundation, \$1000 program support grant, 2015-2016
- Davis College Faculty Development, \$5709 faculty enhancement grant, 2015-2016
- Davis College Faculty Development, \$3375 faculty enhancement grant, 2015-2016
- Delaplaine Foundation, \$1000 WVU Equine Studies grant, 2015
- WVUSGA, \$600 WVU Collegiate Horsemen's grant, 2015
- CHS Foundation, \$1000 program support grant, 2014-2015
- Davis College Faculty Development, \$5560 faculty enhancement grant, 2014
- WVUSGA, \$750 Collegiate Horsemen's grant, 2014
- CHS Foundation, \$1000 program support grant, 2013-2014
- Davis College Faculty Development, \$5000 faculty enhancement grant, 2013
- Davis College Faculty Development, \$4195 faculty enhancement grant, 2013
- WVUSGA, \$750 Equestrian Team grant, 2013
- WVUSGA, \$1000 Collegiate Horsemen's grant, 2013

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- CHS Foundation, \$1000 program support grant, 2012-2013
- VT CALS, \$28,830 collaborative research grant, 2011-2012

### INTERNATIONAL EXPERIENCE

#### **Faculty Led Horse Industry Tour of Ireland** **Summer 2015**

Planned and led an immersive educational tour of Ireland's diverse horse industry including stud farms, race courses, breeding farms, and support services.

#### **Old Dominion Hounds Pony Club Exchange** **Summer 2012**

Chaperoned USPC members as they toured horse shows, farms, took lessons, competed, and visited cultural sites in Northern Ireland and Ireland.

#### **Rotary International Group Study Exchange** **Summer 2007**

Traveled with a team of three Extension Agents throughout agricultural communities in Mexico to exchange agricultural and cultural information.

### OUTREACH

#### **Extension Agent, Animal Science** **2005-2010**

Virginia Cooperative Extension

- Conducted need-based equine extension programming in Northwest Virginia, including a nationally recognized program with the *National Association of County Agricultural Agents Search for Excellence in Livestock Production*
- Programs included *Managing the Risks of Equine Enterprises, Equine Nutrition Series, Equine Pasture and Manure Management Short Course, Caring for the Older Horse, Truck and Horse Trailer Safety Day, Preparing First Responders for Equine Emergencies, Mortality Disposal Options for Livestock Producers*
- Generated resources and support for extension programming through registrations, grants, sponsorships, vendors, and various media
- Produced extension publications with colleagues and Extension Specialists
- Recruited and retained volunteers and industry professionals for programming
- 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 VA State 4-H Horse Program with equine events, clinics, and camps

### 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*

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### **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.*

## **EDUCATIONAL PROGRAMMING (continued)**

### **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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## RESEARCH PUBLICATIONS

Smith, C., Swinker, A., Comerford, P., Radhakrishna, R., & Hoover, T. (2006). Horsemanship and life skills of youth in horse programs. *The Professional Animal Scientist*, 22, 89-93.

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, Murfreesboro, 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.

## RELEVANT 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

### 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 logistics

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## **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
- Developed lesson plans, goals and instructed children in western and hunt-seat riding lessons
- Responsible for breaking and training of performance horses

## **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

## **HONOR SOCIETIES AND PROFESSIONAL ORGANIZATIONS**

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

## **EXTENSION AND TEACHING AWARDS**

- Davis College of Agriculture, Natural Resources & Design Outstanding Service Award, 2018-2019
- Animal & Nutritional Sciences Outstanding Teaching Award, 2016
- 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, 1<sup>st</sup> Place Newsletter, 2008
- Virginia Association of Agricultural Extension Agents Communications Award, 1<sup>st</sup> Place Direct Mail Piece, 2008

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- Northwest District Program Evaluation Award, 2007
- Outstanding 4-H Alumni Award, Warren County, 2007
- National Association of County Agricultural Agents Poster Contest, 3<sup>rd</sup> Place, 2007
- Virginia Association of Agricultural Extension Agents Communications Award, 1<sup>st</sup> Place Direct Mail Piece, 2007
- Virginia Cooperative Extension In-Service Poster Contest, 3<sup>rd</sup> Place, 2007

### DOCTORAL COURSE WORK

#### EPD 612 INTRODUCTION TO EDUCATIONAL RESEARCH

A course teaching students to plan and develop a quantitative research proposal, review qualitative research techniques and procedures, and review action research techniques and procedures.

#### EDP 614 STATISTICAL METHODS 2

A course designed to develop skills to conduct advanced descriptive and inferential statistical analysis.

#### EDP 612 INTRODUCTION TO RESEARCH

Basic concepts, strategies, methodologies, designs, and procedures of research in education.

#### EDP 614 STATISTICAL METHODS 2

Extension of basic concepts of statistical models, design of experiments, multiway classification models, factorials, split plot design, simple covariance, orthogonal comparisons, multiple linear and nonlinear regression and correlation analysis, chi-square and nonparametric statistics.

#### EDP 617 PROGRAM EVALUATION

A course focused evaluating educational programs using qualitative and quantitative measures.

#### EPD 640 INSTRUCTIONAL DESIGN

A course designed to introduce students to instructional design, a systematic process to develop instruction.

#### EPD 700 PSYCHOLOGICAL FOUNDATIONS OF LEARNING

A course focused on learning theory, models, and the act of learning.

#### EDP 710 EDUCATIONAL RESEARCH

A course focused on the development of Chapters 1 and 2 of the dissertation in educational research.

#### EPD 740 PRINCIPLES OF INSTRUCTION

A course designed to (1) identify your views on teaching, (2) explore teaching options, (3) apply teaching models, and (4) study and document your teaching.

#### IDT 620 SOCIAL NETWORK MEDIA

A course designed to explore the incorporation of social network media in instruction.

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### IDT 630 INSTRUCTIONAL DELIVERY SYSTEMS

A course on the development, implementation, and evaluation of online instructional delivery systems.

### IDT 650 MULTIMEDIA LEARNING

A course designed to develop skills in multimedia instruction and evaluate multimedia learning.

### IDT 660 AUTHORING SYSTEMS

Design and development of online instruction through the use of current authoring systems.

### IDT 693F DESIGN AND DEVELOPMENT OF RESEARCH

A course designed to study the development of *educational interventions* (software, apps, courses, units, workshops, teaching innovations) *over time* using a *repeated cycle* of design, implementation, and evaluation.

### IDT 693J TECHNOLOGY FOR TEACHERS

A course designed to evaluate how technology is incorporated into the classroom and for what purpose.

### IDT 693T GAMES AND SIMULATIONS

A hands-on exploratory course in the design, development, and deployment of digital games.

### IDT 715 SCHOOL NETWORKS

A hands-on exploratory course in the design, development, and deployment of a school network

### IDT 795 INDEPENDENT STUDY

A course in the design and development of a research proposal.

### IDT 798 DISSERTATION

An optional course for programs that wish to provide formal supervision during the writing of student reports or dissertations.

### SCFD 615 QUALITATIVE METHODS

An introduction to the nature of qualitative research and to techniques of interviewing, observation, and the analysis of documents and other cultural artifacts. Includes guided experience in designing and implementing a qualitative research study.

## MASTERS 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.



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### 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.

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### AN SC 290 CAREERS IN ANIMAL AGRICULTURE

A course highlighting potential career paths for Animal Science undergraduate students.

### 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.