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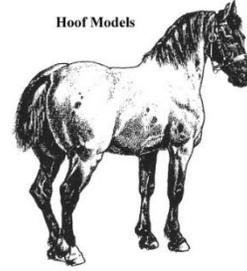
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Harold F. Hintz, Ph.D.

2016 NAEAA Henneke Award

The Henneke Award is designed to recognize an individual who has had a sustained impact on education or educational practices within the horse industry. The recipient's efforts may have been related to research, teaching or outreach and may have been accomplished within academic, industry or governmental organizations. This year's recipient is the late Dr. Harold (Skip) Hintz.

Raised in Ohio, Skip Hintz received his undergraduate degree from The Ohio State University and then completed his Ph.D. in animal nutrition from Cornell University. After a short appointment at the University of California at Davis, Dr. Hintz returned to Cornell University where he had a long and distinguished career as a professor with a dual appointment in the Department of Animal Science and the College of Veterinary Medicine.

Beginning in the late 1960's Dr. Hintz initiated what would become the most famous equine nutrition program in the nation, and in the world. Dr. Hintz was a driving force in moving equine nutrition from a tradition-driven practice to a science-driven discipline. He served on National Research Committee on Horse Nutrition from 1973 through 1989 and was a key author on three revisions of The Nutrient Requirements of Horses (1973, 1978 and 1989). He was a founding member of the Equine Nutrition Society which eventually grew into the Equine Nutrition and Physiology Society and now the Equine Science Society. ESS is currently the primary venue for the presentation of equine nutrition research and has served as an important source of continuing education and professional development for equine-focused academic and industry professionals. He was also instrumental in developing the International Conference on Equine Exercise Physiology (ICEEP) which has served as the principal venue for research related to equine performance since 1983.

Dr. Hintz was a prolific scientist, publishing more than 200 peer reviewed manuscripts. Over the course of his career he published some of the most important papers relating to calcium and phosphorus metabolism, protein and amino acid requirements and fiber digestion in the horse. He was an innovative scientist who was one of the first nutritionists to use fat supplemented diets for performance horses. This now-commonplace practice has allowed improved gastrointestinal health for horses requiring high energy diets. Dr. Hintz was a pioneer in generating and publishing growth curves for horses and was one of the first nutritionists to recommend an even and moderate growth rate to reduce the risk of developmental orthopedic disease.

Dr. Hintz received many awards for his research contributions. Perhaps most notably, he received the AFIA Award for Nutrition Research from the American Society of Animal Science in 1984 at a time when the award was given almost exclusively to either cattle or swine nutritionists. He was also invited to give the Frank Milne State-of-the-Art Lecture by the American Association of Equine Practitioners, and was elected to the Equine Research Hall of Fame.

In addition to being a prolific writer of research articles, Dr. Hintz was a leader in bringing sound nutrition and management advice to the horse owner. He wrote the book, Horse Nutrition-A practical guide which was designed "for horse owners, veterinarians, teachers and students of horse feeding". He also produced several hundred popular

press articles. He had a column in the Morgan Horse magazine called “Hintz on Horses” and a regular article in the veterinary magazine “Equine Practice”. He was also the lead author on the textbook “The Horse” and contributed more than 30 chapters to veterinary and animal science textbooks.

Dr. Hintz contributed to enhancing the welfare of horses through his research and scientific publications, but his greatest impact may have been through his teaching. While at Cornell he taught thousands of undergraduates about nutrition and horse management. He also provided nutritional education to veterinary students, many of whom became leading equine practitioners. He should also be credited with developing outstanding graduate students who have gone on to become leaders in the equine feed industry such as Dr. Joe Pagan, founder and owner of Kentucky Equine Research Incorporated. During the latter part of his career at Cornell, Dr. Hintz served as the Chair of the Department of Animal Science but he continued to be active in teaching and advising. Even after retiring he assisted with a number of courses and remained active as a speaker and writer.

Dr. Hintz’s educational activities were not limited to the Cornell Campus. He traveled across the US and to Europe, South America, Africa, Asia, the Middle East and Australia to deliver sound nutritional advice to horse owners, producers and veterinarians. He was revered for his understandable presentations, always delivered with a little humor. There is no doubt that modern horses are better for all of Dr. Hintz’s activities; as are all of the students, horse owners and colleagues who had the chance to work with him.

NAEAA 2016 Conference Schedule

Monday, June 6th

- 5 - 7pm Check-in for pre-conference excursion/ early arrivals: The Lackland Center

Tuesday, June 7th

Pre-Conference excursion: 8 am to 1:30 pm

- Tour of United States Equestrian Federation headquarters <http://uset.org/home.php>
- Tour of Tranquility Farms <http://tranquillityhorsefarm.com/>
- Beval Saddlery: <http://www.beval.com/>

Conference opening at 2:00 pm – Black Box Theater

- 2:00 pm: Conference Welcome - K. Bump, Cazenovia College; L. Taylor, Centenary University; Dr. Amy D'Olivo, Assistant Provost, Centenary University.
- 2:30 - 3:15 pm: Opening Presentation: Best practices and current trends in student assessment (Dr. Jeremy Houska, Director of Institutional Assessment, Centenary University)
- Session 1: Assessment of student knowledge and learning
 - Facilitator: A. Burk, University of Maryland
 - 3:30 pm: Scientific Literacy of Equine Studies Students Regarding the Use of Antibiotics and Vaccines (S.L. Mastellar and R.C. Bott, South Dakota State University)
 - 3:45 pm: Assessment of Communication, Consensus Building, and Civility Through In-Class Collaboration Between Equine Studies and Theater (S. Simms and S. Davis, Centenary University)
 - 4:00 pm: One Course – Many Directions (K. Splinter-Watkins, Eastern Kentucky University)
 - 4:15 pm: Writing in the Discipline (WID) Courses: Assessing Continual Improvement in Writing Skills of Senior Equine Studies Majors (L. Taylor, Centenary University)
 - ❖ 4:30 - 4:45 pm: *Quick Beverage Break*
- 4:45 - 5:45 pm: Collaborative projects in student knowledge, learning, and assessment - working session using *ThinkSpace 2.0*. (P. Miller-Auwerda, Iowa State University and K. Merckies, University of Guelph)
 - Introduction of ThinkSpace 2.0 as a tool for collaborative projects.
- 5:45 – 7:00 pm: **Welcome BBQ reception**, non-alcoholic beverage, and topical discussions
- 7:00 – 9:00 pm: NAEAA Board Meeting – Black Box Theater

Wednesday, June 9th

- 8:00 - 8:30 am: Continental breakfast (Black Box Theater Lobby)
- 8:30 am: Morning announcements - L. Taylor, Centenary University
- Session 2: Skills assessment and care of the riding horse
 - Facilitator: J. Holland, Midway University
 - 8:45 am: Hands-on Skills Assessment in a Comprehensive Equine Curriculum (K. Munz and S. Simms, Centenary University)
 - 9:00 am: Student Self-Assessment: A Tool to Direct Lessons in Riding Skills and Maximize

- Student Learning (T. Clausen, Centenary University)
 - 9:15 am: Differences in Stereotypic Stable Behaviors between School Horses with and School Horses without Turnout (J. Riddle and A. Mitchell, Wilmington College)
- ❖ *Beverage Break: 9:30 - 9:45 am*
- **Facilitator: J. Pendergraft, Pendergraft and Associates, LLC**
 - 9:45 am: Efficacy of an Oral Supplement on Movement in Exercising Horses (M.J. Nawa, M.L. Santiago, C.A. Porr, Murray State University)
 - 10:00 am: Utilization of Triple Crown Management Software for an Undergraduate Equestrian Facility (M. Lapp, Centenary University)
 - 10:15 am: Learning Theory Applied to Training (A. Telatin, Delaware Valley University)
- ❖ 10:30 - 11:00: *AM refreshment break*
- 11:00 - 11:45 am: Invited Speaker: **Understanding Arena Footing and its Impact on Riding Horse Welfare – Lessons Learned from Research and Application**. Dr. Jeff Thomason, Ontario Veterinary College, University of Guelph
- ❖ *Lunch: 11:45 am – 12:30 pm*
 - ❖ 12:20 pm – begin departure for Centenary University Equestrian Center
 - *Vans depart from The Lackland Center*
- **Session 3: Conference workshops**
 - 1:00 - 2:00 pm: Centenary University Equestrian Center Tour with discussion of Strategic Goals for Facility Improvements: The Centenary College Equestrian Center Enhancement Project (K. Munz, Centenary University)
 - 2:00 - 2:40 pm: Demonstration and Application - Research on arena footing with insights into involving undergraduates in this type of project. Dr. Jeff Thomason, Ontario Veterinary College, University of Guelph.
 - ❖ 2:40 - 3:00 pm: *Refreshment break*
 - 3:00 - 4:30 pm:
 - Teaching Tips and Tools for Non-Farrier Teachers - Considering the Horse's Welfare Applied to Trimming and Shoeing (J. Butler, Butler Professional Farrier School)
 - ThinkSpace 2.0 Continued (P. Miller-Auwerda, Iowa State University and K. Merckies, University of Guelph)
 - *If possible, please bring a laptop or cellphone to use during the workshop!*
 - 4:30 - 5:45 pm: Practical Application of Learning Theory: Effective Use of the Natural and Artificial Aids and the Clicker. (A. Telatin and C. Kieschnick, Delaware Valley University)
 - ❖ 5:45 - 7:30 pm: **Heavy hors d'oeuvre cocktail reception featuring New Jersey wine and beer.**
 - **Presentation of 2016 Henneke award**
 - **Yankee Swap** – *bring a gift related to your home college and/or state and plan to join the fun!*
<http://www.yankeeswap.com/yankee-swap-rules.php>

Thursday, June 9th

- **Session 4: Poster Session** *with continental breakfast* - Student Lounge and #TheVibe
 - **Poster Session Facilitator: J. Pendergraft, Pendergraft and Associates**
- Group A: 8:00 – 8:30 am
 1. Equestrian Strength and Conditioning Progress Testing (W. Houser, A. Anthony, K. Bump, Cazenovia College)
 2. Growing the Equine Industry: Time to Ride (S. Barberra, Delaware Valley University)
 3. Building Program Reputation and Donor Relations Through Careful Management of Horse Donations (T. Clausen, Centenary College)

4. Equine Orientation Program: A Program for Incoming Students to Enhance Safety and Promote Community (C. Kieschnick, Delaware Valley University)
 5. Improving and Promoting the Equine Academic Discipline in West African Veterinary Schools – Taking a Cue from NAEAA Principles (W.P Mshelia. Ahmadu Bello University)
- Group B: 8:30 - 9:00 am
 1. School Horse Suitability and Startle Responses (S. Shuler, B. Siehr, and A. Mitchell, Wilmington College)
 2. Profitability of the Wilmington College Equine Center (B. Siehr and A. Mitchell, Wilmington College)
 3. Fifty-Six Years of Success: The University of Wisconsin-River Falls Equine Program (D. Smarsh and C. Bass, University of Wisconsin-River Falls),
 4. Demographic Differences in How Riders Perceive Themselves Based on Video Analysis (L.G. Wood, Southern Utah University)
 5. Instructional Strategies for Equine Students With Visual Impairments (S. R. Malone and C. Schneider, Morehead State University, Morehead, KY)
 - **Session 5: Program Reputation and Sustainability – Black Box Theater**
 - **Facilitator: J. Downer, College of Central Florida**
 - 9:15 am: A Perspective from PATH (S. Albrecht, PATH International)
 - 9:30 am: Integrating an Equine-Assisted Therapies Course into the Liberal Arts Curriculum (A. Rumore, Randolph College)
 - 9:45 am: Service Learning: Strategic Teaching for Equine Assisted Activity and Therapy (K. Splinter-Watkins, Eastern Kentucky University)
 - ❖ 10:00 - 10:15 am: Beverage Break
 - 10:15 - 10:40 am: Developing a Dashboard of Key Performance Indicators to Measure and Track Sustainability in Undergraduate Equine Programs (T. Williams and K. Bump, Cazenovia College)
 - 10:40 – 11:00 am: Moving forward: NAEAA Certification (K. Bump and T. Williams, NAEAA)
 - **Session 6: Teaching Tools; presentation and demonstration – 5min presentations followed by ‘interactive’ time.**
 - **Facilitator: L. Janecka, Kentucky, Equine Management Internship**
 - 11:00 am: Essential Anatomy Kit (J. Butler, Butler Professional Farrier School)
 - 11:05 am: EQUESTrian Cards (A. Galliher, EquestCards@tds.net)
 - 11:10 am: A Novel Resource for Teaching Equine Training and Behavior (E. James and D. James, Double Dan Horsemanship)
 - 11:15 am: Using Socrative as a tool for classroom engagement (M. Taylor, Seton Hall University)
 - 11:20 am: Animal welfare Judging Competition (C. Heleski, Michigan State University)
 - 11:25 am: Triple Crown Management Software (M. Lapp, Centenary College)
 - 11:30 - 12:20 pm – Interactive time

Closing session: 12:30 - 1:45pm – Cafeteria

- Lunch
- Reporting out on ThinkSpace 2.0
- Business meeting - NAEAA finances; launch of new survey projects (alumni and industry); call for

- proposals for 2018;
- call for interest in Board service

Post Conference Workshop (post conference fee \$10) – in PCR

2:00 - 5:00 pm: Using the NAEAA Standards of Excellence criteria for program review, assessment and development (K. Bump and T. Williams)

- Training for those who wish to utilize (or consider utilizing) the NAEAA Standards of Excellence for internal or external review. ***NOTE:*** Individuals completing the workshop are eligible to earn ***NAEAA reviewer certification.** Academic Programs that choose to utilize the NAEAA Standards of Excellence are eligible to earn ***NAEAA Standards of Excellence Certification.**

** Full details discussed at workshop. Contact Dr. Karin Bump for further information if you are not able to attend the workshop – kbump@naeaa.com.*

NAEAA 2016
Conference Proceedings

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Scientific Literacy Of Equine Students Regarding The Use Of Antibiotics And Vaccines

S. L. Mastellar & R. C. Bott, South Dakota State University, Brookings, SD, USA:

Contact email: sara.mastellar@sdstate.edu

There exists much misinformation about antibiotic and vaccine use. An understanding of these topics is important for the use of these tools for the best equine health outcomes. The purpose of this study was to evaluate students' understanding of antibiotics and vaccines, identify learned misinformation, and establish baseline data. A survey was administered at the beginning of Equine Health & Disease (AS 213) and Horse Production (AS 365) at South Dakota State University during the spring 2016 semester. AS 213 is not a prerequisite for AS 365. Results of the survey suggest that students may come with some understanding of the concepts surrounding antibiotic and vaccine use (Table 1), but are willing to administer vaccines and antibiotics in situations where they are unwarranted (Table 2). This data suggests that misconceptions related to vaccine and antibiotic use exist in the student population and there may be a need for increased instructional emphasis on the application of vaccines and antibiotics in equine management.

Table 1: Correct student responses (%) to knowledge base questions regarding antibiotics and vaccines at the beginning of AS 213 (n=38) and AS 365 (n=33)

Question	AS 213	AS 365
True or <i>False</i> . Antibiotics will kill viruses as well as bacteria.	78.9	84.8
Which of these is a major concern about the overuse of antibiotics? <i>a. It can lead to antibiotic-resistant bacteria</i>	100.0	97.0
Many diseases may be cured by antibiotics. However, the success of some antibiotics against staph infections in horses has diminished in recent years. What is the reason for this? <i>b. Bacteria can become resistant to antibiotics</i>	89.5	90.9
True or <i>False</i> . Vaccines are effective immediately once administered.	97.4	90.9
True or <i>False</i> . A horse does not need to be vaccinated if it doesn't leave the property.	94.7	93.9
<i>True</i> or <i>False</i> . A vaccination protocol is essential for ideal equine welfare.	100.0	97.0

Table 2: Student responses (%) at the beginning of AS 213 (n=38) and AS 365 (n=33) to "I would give an antibiotic or vaccine to a horse for (circle all that apply)"

Response	Antibiotic		Vaccine	
	AS 213	AS 365	AS 213	AS 365
a. Viral infections, such as the flu	26.3	24.2	42.1	51.5
b. Cancer treatment, such as carcinoma	7.9	15.2	13.2	6.1
c. Bacterial infections, such as Potomac Horse Fever	86.8	84.8	18.4	15.2
d. Disease prevention, such as rabies	15.8	6.1	86.8	81.8
e. Parasite removal, such as bots	42.1	36.4	13.2	9.1
f. I would not give a horse antibiotics or vaccines	0.0	0.0	0.0	0.0
Correct*	39.5	39.4	44.7	39.4
Incorrect**	60.5	60.6	55.3	60.6

*Only bacterial infections for antibiotic and only disease prevention for vaccine

**Includes students that marked more than one choice

Assessment of Communication, Consensus Building, and Civility Through In-Class Collaboration Between Equine Studies and Theater

Sarah Simms and Stephen Davis, Centenary College, New Jersey

The practice and assessment of student “soft skills” can be a particularly challenging area for faculty in any academic department. A unique partnership has been formed over the past four years between the Departments of Equine Studies and Theater that challenges both groups of student majors to build self-confidence, increase their comfort in a novel environment, work in a diverse team, and confront existing stereotypes in the undergraduate community. First year students in the Academic Foundations courses in both departments devoted three class periods to a collaborative learning exchange on campus and at the Equestrian Center. All students participated in acting exercises inside the Lackland Theater to build confidence in front of their peers, show the importance of word emphasis and sentence structure, and begin the process of understanding how stereotyping others can be hurtful through the observation and discussion of impromptu skits by the faculty. All students also participated in the grooming session of a horse, and were encouraged to interact closely with the animals. Most of the Theater majors had never worked with horses before. Discussion with peers and faculty followed concerning equine behavior, how the students felt around the animals, and the human-animal bond in general. The culminating assignment for all of the mixed majors groups was a performance of their original script for the rest of the students and faculty members in the Little Theater. Most of the Equine majors had little to no performance experience. Discussion about stereotypes and challenges overcoming them followed the last performance, and students also nominated peers for best actor and actress. This interaction was used to assess both the Centenary College Greater Expectations (Liberal Arts Outcomes), as well as Learning Outcomes in both departments.

One Course: Many Directions

Kathy Splinter-Watkins, Eastern Kentucky University, Richmond, KY.

E-mail contact: Kathy.splinter-watkins@eku.edu

This poster presentation describes the development and subsequent evolution of a course that has structure, yet flexibility in its content. *Horse and Human Co-Occupation* is an introductory course to the minor, Horses, Humans and Health. This interdisciplinary course is housed within the Occupational Science and Occupational Therapy program. Student learning objectives outline the expectations of the course introducing students to the world of horses and therapy.

Initially students are familiarized with the basics of a horse, including terminology, conformation, behavior, and unique attributes. As the course progresses, students look more specifically at equine movement and how horses connect with people, as these two particular aspects are the backbone to Equine Assisted Activity and Therapy (EAAT). Students who take this course have various majors, such as Animal Studies, Agriculture, Occupational Science, and Therapeutic Recreation.

Throughout the course, fieldtrips are taken to various facilities and programs involving horses, including but not limited to the Kentucky Horseshoeing School, Kentucky Horse Park, Central Kentucky Riding for Hope, Keeneland Racetrack, and the Kentucky Equine Sports Medicine and Rehabilitation Center. Finally, students create a culminating paper and presentation that recalls their past history with horses, analyzes their current strengths and challenges, and projects their future with horses. In this poster format, fieldtrip assignments and student career statements and projections are shared. It is truly heartwarming to see the varying directions students take in their quest to work with horses.

Writing In The Discipline (Wid) Courses: Assessing Continual Improvement In Writing Skills Of Senior Equine Studies Majors

L. E. Taylor, Centenary College, Hackettstown, NJ: Contact email: taylorl@centenarycollege.edu

The Equine Studies Senior Seminar is the capstone course for all of our majors, and requires a term paper and oral report, which together comprise 45% of the final grade in the course. Over the past four years, the college faculty have passed major changes to the composition and rhetoric courses required for all students, and the professional and peer tutoring centers have undergone major transformations. Since 2011, the composition courses have all had a standard syllabus and have been staffed by full time English faculty, and the department hired a Director of Composition in 2012 to help faculty in all departments identify and implement a WID course for each major to strengthen writing across all disciplines. The latest major change is the addition of another composition course to the core curriculum, resulting in a full year of freshmen composition and writing for all first year students. Through continuous assessment and reflection on writing skills in the equine studies senior capstone WID course, changes have been made to the content and assignments over the past two years to help better identify the specific student writing skills that need improvement. A systematic, step-wise approach and assessment plan is still used to better equip the students with the information literacy skills necessary to develop a quality bibliography and therefore, a high quality term paper and presentation. Students are required to write a three (3) rough drafts, as a well as a final draft of their term paper, in addition to rough and final drafts of their outline and annotated bibliography. Each paper draft is reviewed, with feedback on source quality, content, flow, structure, and grammar, and is returned to the student during a meeting with the professor to review comments and suggestions for improvement. The course structure has gone through many changes in our attempt to emphasize the complete process of writing and the importance of this skill for all students, and new measures have been used over the past two years to help discern ongoing challenges with grammar, sentence structure, punctuation, and the use of in-text citations in the research paper, and whether or not improvements in each area are made over the course of the four drafts. Data collection and analysis of these skills will continue through the 2018 academic year, to capture any benefits of the full year of Freshmen Composition, which began in the Fall semester of 2015.

Hands –On Skills Assessment In A Comprehensive Equine Curriculum

K. Munz, S. Simms, Centenary College, Hackettstown, NJ:
Contact email: munzk@centenarycollege.edu; simms@centenarycollege.edu

At Centenary, students are guided to graduate with the hands-on skills they need to begin their careers in the Equine Industry. Keeping that in mind, there are two challenges 1) keeping a sense of order and routine in the day to day running of the Equine Center; and 2) splitting a class between classroom lecture and hands on work in the barn, concerning the dedication of time in each location. At Centenary, an efficient facility that focuses on the first rate care of the horses and providing a safe environment for students to learn is a source of pride for the equine faculty, as well as the campus community. In past years, students mucked the stalls and cared for the horses on a daily basis. While this works for many schools, it was decided that this did not work for the program here, and staff and work study students were hired to complete the basic care of the horses early in the morning so that the barn was clean and ready when classes started for the day. Because of this decision, faculty determined that more hands on work and assessment had to be added into the curriculum. With larger class sizes and an abundance of material to be covered in the curriculum, faculty are challenged with the balance of lecture time versus hands-on learning. To accomplish this, faculty conduct basic demonstrations in class with skill assessments built into the class curriculum. Examples include horse care, wrapping, lunging, and restraint. Some classes require additional laboratory-style hours, which would include working in the barn or observing the veterinarian. Students are also required to complete a “Practicum Skills Book” which needs to be finished by the time they take the Equine Studies Seminar Course, which is the senior level capstone for all of the equine majors. Students receive this book in their first year, and it includes all of the skills that faculty feel they must be able to demonstrate by the time they graduate. Examples of skills include stall mucking, applying foot wraps, loading horses on a trailer, restraint, injections, and clipping. Equine Science students in the Pre-Veterinary track have a more medically focused skills book. Students receive an “incomplete” in the capstone course if the skills book is not completed, and therefore will not be allowed to graduate. Despite the addition of these measures, faculty often still feel that the students do not spend enough time working on basic handling and care skills. The faculty continue to reevaluate our curriculum annually and work on additional assessment measures to ensure that the students have the necessary skills to be successful in the Equine Industry, regardless of their concentration in the field.

Student Self-Assessment: A Tool To Direct Lessons In Riding Skills And Maximize Student Learning

T. Clausen, Centenary College, Hackettstown, NJ. Email: clausent@centenarycollege.edu

Students in Equine Undergraduate Programs often possess a wide range of previous riding experience. At Centenary College, each incoming student is initially evaluated based on video review of overall performance and assigned a “riding level” within the riding program. Subsequently, while a group of comparable students may be placed in the same level performance evaluation, each student undoubtedly possesses a unique skill set that is rich in some areas and weak in others. As a result, this group of learners is diverse in its capacity to understand, explain, and demonstrate the specific skills that are required of the level and measured through course outcomes on an individual basis.

In an effort to direct lessons in specific riding skills, and therefore maximize learning of a diverse group over a short time period, each student was asked by the instructor to complete a prescribed self-assessment at the start of the 16 week session. The self-assessment was developed based on individual instructor outcomes as stated in the course syllabus and program-wide prescribed outcomes expected to be mastered at the particular level. Students were asked to consider each individual skill and rate themselves on the following scale: Unable to perform the skill-0 point; Developing the skill-1 point; Secure performing the skill on most horses-2 points; Mastery of the skill on most horses-3 points. In addition, students were encouraged to elaborate on scores given and comment on perceived strengths or weaknesses related to each skill.

The breakdown of skills within the Self-Assessment Rubric encouraged students to reflect on specific strengths and weaknesses, think critically about one’s abilities, and communicate one’s perspective to the instructor in a concise and clear manner. Upon review and analysis by the instructor, individual lesson plans were developed to address identified weaknesses (those rated 0-1) within the group and further strengthen or confirm areas identified as secure or mastered (those rated 2-3).

At the conclusion of the course, students were once again asked to complete the Self-Assessment Rubric. In addition, students were asked to provide comments regarding skill coverage based on the rubric and personal progress in identified areas of weakness. Initial response to the exercise indicated general student satisfaction with the initial assessment and specific skills subsequently addressed in the lessons. Constructive comments served to identify areas in need of future improvement to further maximize the learning that can take place in a diverse group of learners over a short period of time.

Differences In Stereotypic Stable Behavior Between School Horses With And School Horses Without Turnout

J. Riddle, A. Mitchell, Wilmington College, Wilmington, Ohio

The show circuit and training aspects of the horse industry has often had a negative perception due to the harsh environment, lack of socialization, and lack of turnout for the horse. Many training stables hesitate to allow the horse free turnout due to a perceived high risk of injury and lack of attentiveness during training lessons. It has been suggested that an increase in negative behaviors or stereotypy in the barn or stable is being demonstrated by horses that are kept in a stall due to the inability of free exercise in order to satisfy their natural behaviors.

The purpose of this study was to discover the difference in stereotypic stabled behavior between school horses with daily turnout and school horses without daily turnout in order to give students of Wilmington College the proper knowledge of school horse treatment for performance. Turnout practices were investigated using 6 horses: Three horses being kept in a stall for 7 days without access to free exercise or turnout and 3 horses on a normal daily schedule with daily turnout. The results of this study were considered to provide the best schedule for school horses in a controlled environment. Also considered is the understanding of requirements in order for the school horse to have the best performance coupled with a proper sense of well-being. Treatment 2 (Horses 2, 3, and 4) were kept in a stall during the seven days without turnout. Treatment 1 (Horses 1, 5, and 6) were turned out once daily in a controlled turnout for a period of four hours. Observations of the six horses' stabled behavior were recorded at specific times and for specific time intervals. Behaviors without turnout were more agitated and restless which led to the development of many new negative or stereotypic behaviors as compared to the behaviors with turnout. Therefore, student knowledge of proper turnout is essential to decreasing the amount of developed stereotypic behavior and the increase of the well-being and proper treatment of school horses.

Efficacy Of An Oral Supplement On Movement In Exercising Horses

**M. J. Nawa, M. L. Santiago, C. A. Porr, Murray State University:
Contact email: mnawa@murraystate.edu**

The equine healthcare market is a multimillion-dollar industry [1]. Supplements are often used in horses to maintain or improve health and performance. Owner conjecture or consumer advertising, as opposed to scientific evidence, often drives supplement selection. Information made available concerning supplements is often inconsistent due to the fact that supplement manufacturers are not held to the same research standards as drug manufacturers [2]. This has led to conflicting views on the efficacy of equine dietary supplements. Hyaluronic acid (HA), found in the synovial fluid of normal joints, is commonly added to joint supplements and has been used as an oral supplement in horses for over 10 years. However, it is often used in combination with other joint components, including glucosamine, chondroitin sulfate, and methylsulphonylmethane [2]. There is little research on how HA alone affects joint health. The objectives of this undergraduate research project were to 1) evaluate the effect of an orally fed HA gel supplement on exercising horses, and 2) provide a hands on, research-based opportunity for students to experience research design, funding, and implementation. Although 20 exercising horses were initially selected for the study, only 19 were included in the final sample. Treatment horses were supplemented with 1 oz of a HA supplement for 7 d, followed by ½ oz for 28 d per manufacturer recommendations. Flexion tests were performed by a licensed veterinarian using the American Association of Equine Practitioners lameness scale. A subset of horses was evaluated for stride length under saddle. Independent evaluators also completed a survey at 3 and 5 weeks of supplementation to assess changes in horse behavior and movement during exercise periods. Data was collected before and after supplementation. Financial assistance for the project was supported by student-led efforts and included an internal University grant application and a solicitation for the donation of the HA supplement. An independent-samples t-test evaluated changes in post- to pre-flexion scores in control and treatment horses. There was no difference in overall flexion score with supplementation ($p=0.582$). However, there was a trend for improvement in flexion scores in front legs, but not in rear legs. There was a noted difference in the comparison of front to rear changes in flexion scores, but this result should be interpreted from a practical rather than a statistical perspective because the difference from front to rear was not statistically significant. There was no change in stride length. While not significant, a Chi-squared test of association conducted between control and treatment for movement at the canter and trot revealed a moderately strong association between treatment and both movement at canter, $X^2(1)2.618$, $p=0.106$ and movement at trot, $X^2(1)2.618$, $p=0.106$. The HA supplement appeared to have a positive effect on equine movement. Relative to student skills and knowledge, this study allowed undergraduate students to fully participate in an applied, hands on research study, including project design, funding, and implementation. Students were able to participate in efforts to gain alternative financial support. These efforts were successful, and included receipt of an internal University grant as well as a gift-in-kind of the supplement used in the study.

Williams, C. A., and Lamprecht, E. D. 2008. Some commonly fed herbs and other functional foods in equine nutrition: a review. *The Vet. J.* 178(1):21-31.

Burk, A. O., and Williams, C. A. 2008. Feeding management practices and supplement use in top-level event horses. *Comparative Exercise Physiology* 5(02):85-93.

Utilization of Triple Crown Management Software for an Undergraduate Equestrian Facility

M. Lapp, Centenary College, New Jersey: contact email: lappm@centenarycollege.edu

Managing a herd of one hundred horses for a complex undergraduate equestrian facility requires organization. In August of 2014, Centenary College implemented the use of ImproMed Triple Crown Management Software. Initially, the software was utilized solely for managing the veterinary medical records by the veterinary technician, but recently the use of the software system has progressed to a larger scale and is now utilized by the barn management staff as well to monitor the teaching herd used in the equine Studies program. Triple Crown allows for a variety of data entry techniques including, but not limited to: forms, notes, images and attachments. In addition to managing medical records, users have the ability to track body weights, body condition scores, and the administration and use of daily medications. When managing a large herd of horses with a software system, ease of data entry and information accessibility are essential, as are mobile capabilities. The desktop (connected directly to server) and mobile applications are currently both utilized at the college. The software adaptability also allows users to incorporate the system into the routine, daily barn management, which allows multiple staff members to easily schedule turnout rotations. This option offers the ability to keep a quickly accessible log of daily turnout, observe the amount of time a particular horse spent in turnout, and to track horses that were not turned out on a particular day. This allows teaching faculty and staff to change horse use for lessons or classes as needed easily. Although an undergraduate college setting was not the initial intended purpose of the Triple Crown system when it was brought to the market, the flexibility of the program provides staff with the capability to evolve the system to fit our changing needs for the teaching herd.

Strategic Goals For Facility Improvements: The Centenary College Equestrian Center Enhancement Project

K. Munz, Centenary College, Hackettstown, NJ: Contact email: munzk@centenarycollege.edu

Managing the budget at any equine facility is always a challenge, especially in a college setting where Directors often report to non-equine administrators. Discussing the cost of hay, grain and shavings and the need for maintenance and repairs for the buildings and equipment is an ongoing, sustained process. As many schools have tight budgets, some major capital improvements above and beyond the basic care of the horses and facility that would not be supported by the operating budget were identified. In 2009, the Provost and Vice President for Advancement at the time allowed the department to fundraise directly for the Equine Program. The Equestrian Center Enhancement Project was developed, and raised funds to replace the footing in the USET Arena, renovate the “Pabst Barn” and replace much of our fencing. Fortunately, through a major group effort with equine faculty, staff and students, four major fundraising events were hosted, including two galas, which enabled us to complete all three projects over the course of four years. The next phase of the project is to raise funds for a horse walker. Up until now this has been a two year project that has included two stewardship receptions, several mailings, and individual outreach to major prospects. In addition, there is a Presidential Scholar involved in the planning and implementation of this campaign. While at Centenary, balancing a general operating budget will always be a challenge. Thankfully, the administration supported our desire to raise funds to support the capital needs important to the care of the horses, and to enhance the educational experience our students receive. It is anticipated that the current goal of the horse walker should be installed during the next academic year.

Connecting With The Horse's Mind: The Benefit Of Clicker Training In A College Equestrian Setting

A. Telatin, Delaware Valley University, Doylestown PA angelo.telatin@delval.edu

Traditional animal training, the way it is has been practiced for millennia, relies largely on force, intimidation, and pain. While some trainers may also use praise and reward, it is not scientifically organized. Dominating the animal and obtaining control over its behavior are the main goals. The main tools used are fear and pain.

In the late 1970's and early 1980's, the public opinion started to be introduced to training with reinforcement instead of punishment. In 1984, the book "Don't Shoot the Dog!" written by Karen Pryor, attracted the attention of dog trainers even though it was mostly written about people, not animals (Pryor, 2009). Very quickly almost all animal training, from dog training, zoo keeping and aqua marine trainers, changed their training to use positive reinforcement and clicker training.

The equine industry, due to the fact that horseback riding is mostly negative reinforcement based, is the most resistant in adopting clicker training as one of the forms of training. Even the father of operant conditioning, B.F. Skinner was discouraged by horse trainers to use clicker training with horses: "You must not be nice to a horse" (Dougherty, Lewis 1991). The idea is that using food in training creates spoiled or food aggressive horses. This problem can be easily prevented by teaching the horse a correct food delivery behavior before starting the clicker training exercise.

In a teaching setting, clicker training is the most valuable tool to help students understand how operant conditioning works. It helps students master the concept of reinforcers and their timing, realize the speed in which the horse learns, understand why often unwanted behavior sets in and how to counter condition it away.

It is the perfect hands-on component in an educational environment for classes like Equine Behavior, where the possibility to observe horses interact among each other is not easily possible or Equine Training where the training interaction with horses do not involve physical or mental stress on horses that often have a heavy workload.

Clicker training teaches in a positive environment. If a mistake is made, no flight or fight behavior sets in and the student can learn safely the timing of the reinforcers and the structure of shaping behaviors. Skills that are transferable to training using negative reinforcers from the ground or under saddle.

References

Dougherty DM, Lewis P. Stimulus-generalisation, discrimination- learning, and peak shift in horses. *J Exp Anal Behav* 1991;56:97-104.

Pryor K. *Reaching the Animal Mind: Clicker Training and What it Teaches Us About All Animals*. New York: Scribner, 2009. Print

Equestrian Strength And Conditioning Progress Testing

W. Houser, Cazenovia College, A. Anthony, Cazenovia College

Equestrian strength and conditioning progress testing was created in August of 2015 and designed to gauge the level of improvement achieved by student-athletes through sport specific exercise prescription focused on performance enhancement and injury prevention. According to Myers and Sterling (2000), equestrian exercise performance was found to be lower than that of traditional sports, therefore, it is recommended that these student-athletes add in aerobic and anaerobic training to their regular routine of sport specific training. It is also stated by Abernathy and Bleakley (2007), that conditioning, functional training and balance exercises help prevent injury within the Equestrian sport. Given this, the purpose of this study was to determine the effectiveness of exercise prescription based on a student-athlete Equestrian survey combined with pre and post-testing results. Additionally, the study aimed to identify areas of improvement within the overall program design to initiate forward changes.

The strength and conditioning progress testing program at Cazenovia is required by student-athletes on sixteen athletic teams, with about sixty equestrian athletes. Exercise prescription contains combinations of plyometric, agility, strength and balance movements. These tests reflect functional movements such as jump rope, plank, box jumps, suicide running, pushups, burpees, pull ups, side jumps, sit ups and the 40 meter dash. Exercise prescription is completed in a small group setting from ten to fifteen students. The recommended number of workouts per week is 2-3x with an option of adding speed and agility training 1-3x weekly. These workouts normally last one hour in duration and are supervised by team captains and fitness department staff. Team captains are decided by Equestrian coaches. Team Captains meet with fitness staff to review workout exercises, format and form. This review session is completed with the team as well. Once these student-athletes begin workouts, they are required to log a certain number of hours designated by their sport coach. These hours are recorded in a student-athlete fitness sign in book.

Pre-test and post-tests containing plyometric, strength and agility movements reflective of exercise prescription, are completed before and after exercise prescription itself is completed. Testing was broken into two days. Day one consisting of jump rope, plank, box jump, suicides, and push-ups. Day two consisting of burpees, pull-ups, side jumps and sit ups. While specific findings will be presented at the conference, in general, athletes that spent more time completing both strength and cardiovascular/interval workouts, showed more improvement on testing than individuals that did not dedicate as much time to these sport specific workouts. Additionally, athletes that showed more interested in these workouts, based on the survey results, had better overall testing results as well. Therefore, improved test results are a directly correlated with the effort exhibited within the macrocycle, consisting of all phases, designed specifically for Equestrian athletes.

Myers, M.C., & Sterling, J.C. (2000). Physical, hematological, and exercise response of collegiate female equestrian athletes. *U.S. National Library of Medicine*, 40(2):131-8.

Abernathy, L. & Bleakley, C. (2007). Strategies to prevent injury in adolescent sport: a systematic review. *British Journal of Sports Medicine*, 41:627-638.

Growing The Equine Industry TIME TO RIDE

S. Barberra, Delaware Valley University, Doylestown, PA, Stephanie.Barberra@delval.edu

Time to Ride is an equine-industry-wide program facilitated by the American Horse Council with the goal of connecting, or reconnecting, people with horses in their local area.

Time to Ride programs are designed to connect American families, specifically moms, to horses in their areas. The Time to Ride initiative is coordinated by the American Horse Council in cooperation with a host of equine organizations as well as breed and discipline associations. Through the Time to Ride Challenge, its interactive websites, and other activities, Time to Ride encourages people to enjoy the benefits of horse experiences, which include increased mental and physical well-being.

The Time to Ride Challenge is all about sharing the joy of horses with newcomers. \$100,000 cash and prizes will be awarded to the host stables, businesses, and organizations that can introduce the greatest number of new people to horses during the Challenge period through fun horse experiences.

The annual Time to Ride Challenge offers horse professionals the opportunity to grow their business while competing for cash and prizes. Those who sign up to become Challenge hosts offer activities during the months of June – September to give Newcomers a chance to meet a horse. More than 700 beginner-friendly Hosts in 49 states took the Challenge in 2014, resulting in more than 25,000 people enjoying a first-time horse experience. Hosts may use Time to Ride ideas and resources to create compelling activities aimed at generating new long-term customers. Divided into Large, Medium and Small divisions, Hosts compete to reach the most Newcomers during the Challenge period and can win up to \$10,000 in cash, with prizes awarded through tenth place in each division.

At Delaware Valley University, senior equine students discuss their role as soon-to-be equine professionals in the growth of the equine industry. Students are introduced to the Time to Ride program and as a final group project they plan and execute a first-time horse experience for the public. They utilize knowledge gained throughout their University experience such as horse management and teaching skills, event planning, marketing, resource management and many more. They become aware of the importance of and responsibility they have to grow the industry to which they belong.

The students are excited and eager to participate in the challenge but the current dates of the challenge do not coincide with the academic year. Students in the Senior Seminar in Equine Business course will also draft a proposal for a “Collegiate Challenge” to Time To Ride, a useful practice in experiential learning and direct communication with an industry association with the benefit of supervision from a faculty member. They will also share a report with the local equine community, outlining the opportunity to utilize “Time to Ride” as a community outreach program, as newcomer-participants are given coupons to area barns and riding centers (which the equine students solicit) to facilitate the possible desire for newcomer participants to take the next step and start riding lessons.

The hope is to convince Time to Ride that a “Collegiate Challenge” that would coordinate with the school year and provide incentive for equine students and programs to get involved would be a worthwhile endeavor.

"Time to Ride." *Time To Ride*. American Horse Council, n.d. Web.

Building Program Reputation And Donor Relations Through Careful Management Of Horse Donations

T. Clausen, Centenary College, Hackettstown, NJ. Email: clausent@centenarycollege.edu

The horses are an integral part of any undergraduate equestrian program. Many colleges rely primarily on donated horses to support the educational program and promote extracurricular activities for the students. Through careful management of donors, paying attention to public perception, and making appropriate choices and effective communication regarding retirement, euthanasia, and continued careers for program horses, those involved in the donation process can realize continuous improvement in program reputation. Over the course of two years, gradual changes were made to the processes and practices related to horse donations within the organization. These changes were aimed at cultivating lasting donor relations in order to improve the perception of the program, and to increase the overall quality of the horses acquired. Specific changes included increased personal communication with donors during trial periods, increased guidance related to the tax process, increased follow-up through social media contact and letters, and increased donor involvement, if requested, upon retirement from the program. For the first time in the past 17 years at the institution, donors are now directly asked, on the ownership transfer, if they would like to be contacted upon the horse's retirement from the program. This has served to increase donor confidence about care and placement, and has contributed to the donation of many quality horses that may have otherwise been sold. As a result of changes made to the process, it is evident that program referrals from donors have increased, and this recent trend continues, to the benefit of the program and students. Overall donor satisfaction has led to repeat donations from those who have an interest in the horse's future welfare. Satisfied donors that "feel good" about the donation process, the relationship with the organization, and the choice they have made for their horse help to continually improve program reputation among future donors, students, employers and program supporters.

Equine Orientation Program

A PROGRAM FOR INCOMING STUDENTS TO ENHANCE SAFETY
AND PROMOTE COMMUNITY

C. Kieschnick, Delaware Valley University, Doylestown, PA

With a growing number of incoming students who enter college equine programs without a lifetime of horse experience, risk of injuries and accidents is ever-increasing, as well. With a sharp focus on the number of incident reports from the equine areas, administrators are often wary of the liability implications for riding, breeding, and equine management programs.

With a primary goal of safety, the Delaware Valley University Department of Equine Science and Management requires an incoming student Equine Orientation Program, a non-credit course, which typically runs ten days prior to the start of classes in the fall for a duration of five days. All equine students, regardless of their major or specialization are required to participate. All equine faculty and staff teach in the program, which covers a wide variety of topics, with an emphasis on safety. By familiarizing the students with both on-campus equine facilities prior to the start of classes, coursework can begin immediately and faculty can refer to a baseline of knowledge that all students have gained in the orientation program. This also ensures that students have been taught the same information with a methodical and systematic approach, which alleviates concern of (particularly part-time or adjunct) faculty neglecting to share important safety protocol.

Equine students check in to their dorm rooms at the beginning of Equine Orientation, five days prior to the general campus “move in” date. They are among the few students already on campus, along with a handful of sports teams, and as such, they have the opportunity to start building early relationships with their equine peers. During the first evening of orientation, parents and new equine students attend a welcome dinner, during which the equine faculty and staff meet everyone, and wander from table to table answering questions and attempting to alleviate concerns. In an informal presentation, all full time faculty and staff are introduced, and the department chair gives a welcome speech, encouraging students to make use of open-door policies, reassuring parents that student safety and well-being are the top priority to the department, and welcoming all attendees to the DelVal Equine community.

During the fairly rigorous five day orientation, students are introduced to numerous topics, such as: approaching a horse in a stall, tying a quick release knot, saddle fit, lungeing, basic equine behavior, proper grooming techniques, safe mounting and dismounting procedures, and so on. With an incoming class of students with a wide-range of horse experience and capabilities, faculty stress the importance of being “on the same page” for the beginning of the semester. The department members believe strongly that with so many different approaches to almost every practice in the equine industry, our students should learn a safe, proven method for each practice, while gaining and practicing critical thinking skills so they can communicate with industry professionals who have different preferences; this is stressed throughout the Equine Orientation, but also through their entire academic career.

Most activities are taught to small groups, so at any given time, four to eight groups are assigned to different areas and actively learning different tasks or protocol. This gives equine students the opportunity to work together and communicate with each other, continuing to build friendships through shared passion. The scheduling is complicated, at times, and the syllabus is lengthy and detailed, but the result is an incoming class of students who have strong relationships and a functioning knowledge base regarding safety and protocol in the equine facilities.

Improving And Promoting The Equine Academic Discipline In West African Veterinary Schools- Taking A Cue From NAEAA Principles

W.P Mshelia, Department of Veterinary Medicine, Ahmadu Bello University, Zaria, Nigeria:
Contact email: pwmshelia@abu.edu.ng; miduku@gmail.com

West Africa is home to a number of horse breeds. A significant number of these animals are found in rural communities. The few veterinary schools across West Africa (WA) and a substantial number in Nigeria have failed to attract the attention and funding needed to develop a viable equine industry. This has led to the dearth of equine educators and practitioners alike. This is reflected in the quality of graduates in terms of equine knowledge which is poor but, with a high enthusiasm and moral with, only a few exceptions. Gathering information for this work involved personal discussion and contact, emails, questionnaires and websites. The student's skills in hands-on equine areas as well as communication skills are poor but satisfactory in terms of broader range of life skills. Post-graduation education rate and graduate involvement with life-long learning have improved in the past 8-years especially in some Nigerian veterinary schools. Reputation of equine program within undergraduate offering and commitment to equine welfare is not satisfactory. The equine teaching and learning facilities cannot address the surmounting challenges in the equine circle. Also institutional support and educators are biased to other species. Alumni support is satisfactory but a number of schools are not utilizing their alumni to improve on equine education. In order to improve and promote equine academic discipline in West African veterinary schools, they should increase funding, also a periodic review of equine curriculum will be needed- the most fundamental is introduction of Applications and Integrations I, II, III, and IV as a course (Bill, R. L., Fall 1996, Purdue College of Vet. Medicine), introduction of "equine- based service learning" (community horse project) and equestrian clubs, use of equine models in teaching to enhance learning, organizing seminars by equine related industries in various schools, introduction of an undergraduate equine research conference annually to encourage creative and innovative research, to improve on the current student industrial attachment and for veterinary teaching hospitals to be consistent with equine community practice. Program sustainability can be achieved by sourcing fund from, The Africa Education Initiative (NEF) and Tertiary Education Trust Fund (Nigerian Government Initiative) and also forging research collaboration with Western Universities. Donations from veterinary relate industries and individual horse enthusiast especially polo players will assist in increasing the income to cover expenses of running equine programs. The essence of the various equine programs proposed is not to encourage activities but to inspire creativity and innovation through critical thinking and problem solving, where one fundamental question is asked by students engaged with horses- that is, "what can I do differently to help me acquire the knowledge, develop the skills and apply it appropriately to achieve the desired result".

School Horse Suitability And Startle Response

**S. Shuler, B. Siehr, and A. Mitchell, Wilmington College, Wilmington, OH:
Contact e-mail: bethansiehr@hotmail.com**

The level which a horse reacts to new or familiar objects is highly variable and is dependent on various genetic and environmental factors. Horses being used as school horses must either be trainable or have a naturally calm demeanor. One of the challenges the Wilmington College equine program faces is acquiring horses that are calm enough to tolerate beginner riders and talented enough to perform at higher levels for our more advanced riders. If a horse is naturally nervous or reactive to external stimuli but is able to be systematically desensitized, the animal may still be valuable for a riding program. Therefore, the purpose of this experiment was to evaluate the suitability of current school horses used in the Wilmington College equine program by assessing startle response when presented with a stimulus before and after desensitization training.

Twelve school horses averaging an age of 15 years and light horse type housed at the Wilmington College equine center were randomly split into 2 groups (control and training). Each horse was currently being used for light work 5 days a week and was housed in a stall when not being used for the program. On day one of the experiment all horses were presented with a novel stimulus (opening of an umbrella) and their response captured on video. Each horse's response was given a score between 1-5 as adopted by Górecka et al. 2007 (*Animal Science Papers and Reports*, 25:143-152) and recorded. The horses in the training group then received 20 minutes of training a week for 3 weeks. The training consisted of desensitizing to an umbrella opening and closing in close radius while on a halter and lead. At the conclusion of 3 weeks all horses were reevaluated for startle response using the same object and procedures as day one. Data was analyzed with a Paired-Test with a level of significance set at $P \leq 0.05$. There was no effect ($P=0.33$) on novelty response from 20 minutes of desensitization training over a period of 3 weeks.

When reviewing the numerical data and videos from the first evaluation it should be noted that the majority of the horses showed a minor startle response and therefore left little room for improvement. These horses are naturally unreactive and calm which makes them ideal school horses for the equine program at Wilmington College. However, there were two horses within the training group that actually became more reactive to the novel objects after desensitization training. This may be due to the handler anticipating the horse to react strongly during the final evaluation leading to the horse being increasingly nervous or perhaps the horse remembering the unpleasant experience from the first evaluation. As well, the two extremely reactive horses are two horses that are reserved for advanced riders in the Wilmington College equine program as they require more finesse and tact in handling and riding. In conclusion, evaluating startle response to a novel object may be helpful in assessing a horse's temperament for a riding program it has not been shown to decrease startle response with limited desensitization training.

Profitability Of The Wilmington College Equine Center

**B. Siehr and A. Mitchell, Wilmington College, Wilmington, OH:
Contact e-mail: bethansiehr@hotmail.com**

Wilmington College, a private, liberal arts college, focuses on experiential learning as the cornerstone to all of program offered. The motto, “Hands-on learning, Hands-on living” embodies the core of the educational experience for students. Wilmington is located in southwestern Ohio and is only one of 2 institutions that offer 4 year degrees in Agriculture in the state. Nearly 25% of the students major in an agriculture related field. The equine program at Wilmington College had a tentative beginning starting with offering a minor in Equine Studies in 1990. The minor was one of the most popular minors on campus and beginning in 2000, an Agricultural degree with a concentration in Equine Studies was offered in addition to the existing minor program. During this same time the Wilmington College Equine Center was built in 2000, which is composed of 28 stalls, an indoor riding arena, outdoor riding arena, heated viewing area, hot/cold wash racks, individual tack lockers, and multiple paddocks. In addition, an Intercollegiate Horse Show Association (IHSA) Team was formed in 2000. However, in 2012 the Equine Studies concentration was dropped leaving only the Equine Studies minor.

Recently, Wilmington College has invested heavily in its equine program by hiring two full time faculty/staff members and launching a new Equine Business Management major and redesigned Equine Studies minor for 2015. The newly designed curriculum allows students to take courses in the areas of agriculture, business, and equine areas. Having relevant courses available in multiple areas allows students to obtain a more well-rounded education within their field of interest and become more marketable in and outside of the equine industry. As well, Wilmington College has chosen to reduce the required credit hours required to complete an Equine Business management major to allow students to double major or minor in the areas of Business Administration, Agriculture, Biology, or other areas of interest. With the launch of the new program enrollment has increased 60% within the academic program. The Wilmington College equine center aims to continue generating revenue internally as to become more self-sustaining as a program well as increase student enrollment and retention.

It is becoming increasingly necessary to create academic programs that are profitable, educationally rigorous, and continually attracting incoming students. Housing an equine program on campus property is inherently expensive and labor intensive due to the costs involved with boarding, feeding, and caring for a herd of school horses. As well, rarely do equine programs bring in enough revenue to be self-sustaining programs. Due to these obstacles it is becoming increasingly difficult to justify the retention or creation of equine programs in higher education. The aim of this poster is to explore the costs associated with the Wilmington College equine program alongside with the revenue streams that allow the program to remain profitable.

Fifty-Six Years Of Success: The University Of Wisconsin-River Falls Equine Program

D. Smarsh and C. Bass, University of Wisconsin-River Falls, River Falls, WI, USA

Sustainability has been a common thread woven throughout the history of the University of Wisconsin-River Falls (UWRF) equine emphasis. With the program's 1960 origination, it would be an understatement to simply state that the UWRF equine program "has grown" over the last 56 years. However, with its tremendous growth comes the challenge of sustaining a high-quality equine program in a time when higher education budgets are constantly being reduced. Despite challenges, enrollment continues to grow for our program, which can be attributed to the many recruiting methods used by the university, our equine faculty, staff and facilities, and our in-depth equine curriculum.

The UWRF program currently has an enrollment of 230 undergraduate students, as part of the largest major on campus, with a 75% retention rate. In addition, 80% of UWRF equine students report they would "definitely or probably choose the same major and path again" when filling out senior student surveys. Recruitment for equine emphasis students focuses not only on successfully admitting prospective students, but also retaining those students. Postcards and phone calls, as well as tours and meet-and-greets with equine faculty and staff, are directed towards prospective students. Potential students are also exposed to the UWRF equine program through agriculture-related events and high schools within Minnesota and Wisconsin. Emails with step-by-step course sign up instructions are then provided to admitted students.

We utilize 4 equine professors of varying backgrounds and skills to teach 9 horse-focused courses. In addition, UWRF owns and maintains over 50 horses to use for riding, teaching, research, and breeding. Courses currently offered include those focused on riding and farrier instruction, as well as equine management, evaluation, production, and reproduction. Our facilities include an outdoor arena, indoor heated arena, 50-stall barn with tack and laundering facility, and broodmare/foaling barn on 70 acres.

One of the most popular UWRF equine courses is "Colts in Training". Every spring for forty years, fifty two-year old colts and fillies from all over the country arrive at the UWRF equine farm where they are halter broke, brought under saddle, and taught to respond to neck reining by college students. At the end of the semester, the horses are sold to local, regional, and national horse enthusiasts, with the high-seller in 2015 earning \$12,000. Money earned through the Colts in Training sale is then placed back in to the equine program.

To meet the increasing demand and interests of equine students, the program is currently working with administrators on renovating breeding shed and laboratory space. Prior equine facility renovations and additions (such as the 50-stall barn) have been accomplished via alumni donations. While donations are always appreciated, it is realized that other means must be utilized to make or save money where possible. Currently, pasture renovations to increase production, and therefore reduce hay costs, are underway. Finally, through the use of reasonable course fees for our equine classes, some revenue is generated to help cover horse-related costs.

The success of the UWRF Equine Program can be attributed to many different aspects, yet its sustainability is continuously challenged due to increasing budget costs. We hope to maintain or increase enrollment with our recruitment methods, equine faculty, staff and facilities, and high-quality curriculum.

Demographic Differences In How Riders Perceive Themselves

Based On Video Analysis

L.G. Wood, Southern Utah University, Cedar City, UT 84720, Contact email: woodlg@suu.edu

Videotaping equitation has been used as a teaching technique in the equine program at Southern Utah University (SUU) for many years. Students are videoed while riding at the beginning, and again at the end of each semester, and the videos are viewed and evaluated by the class. Work has been done to assess the value to students of this teaching technique. The approach has generally been very well received, with over 97% of students reporting that they have benefitted from seeing themselves ride, and about 80% of students reporting that it was beneficial to them to evaluate other riders (Wood, L.G. 2014. Videotaping equitation for instruction and assessment of a horsemanship course. Proc. NAEAA Annual Conference, Louisville, KY, June 2014 pp20). Data was collected using a survey employing a Likert-type scale with 5 response levels where 1=strongly disagree and 5=strongly agree, assessing student perception of the use of video as a tool to evaluate equitation. Demographic data was collected as a part of the survey including gender, age, class in school, and riding experience. The survey was available for voluntary completion during the final exam. Eighty-four students (90.3% of enrollment) completed the survey over nine consecutive semesters (fall 2011- fall 2015). Data was analyzed using SPSS. Independent *t*-test were used to evaluate differences in mean scores for each demographic for each of the survey questions.

Over 95% of respondents agreed to the statement “seeing myself ride on video was beneficial to evaluate myself”, however, there was a significant difference ($P<0.03$) in mean scores between males and females, with males producing a score of 4.92 ± 0.41 and females averaging 4.66 ± 0.63 . There was no significant difference between males and females for any other question. For analysis purposes students were sorted into four age groups, 18-20 (36 students), 21-24 (28 students), 25-29 (12 students), and 30-52 (8 students). In response to the question “Watching and evaluating other riders in the class benefits my own horsemanship” only 79% of the entire survey agreed, however in the oldest age group, every student agreed. This resulted in a significant difference in scores between the oldest group and every other age group ($P<0.001$). Though over 97% of students agreed that watching the videos increased their awareness of their own horse control, the oldest age group also showed significantly more awareness than each other age group ($P<0.025$). Among classes, freshmen showed more interest in watching and discussing the video than any other group ($P<0.019$). There was no difference between classes in any other category. As a part of the survey, students ranked themselves according to riding experience. While only five students ranked themselves as Advanced, they placed more value on improving equitation and horse training/control as a result of observing the video of themselves. Overall average scores were very high (over 94% agreed the video helped), but advanced riders were significantly above other levels of riders ($P<0.011$). Interestingly, beginning riders had less desire to watch the video multiple times than intermediate or experienced riders ($P<0.020$).

Analyzing the demographics of SUU equestrian students has revealed significant information about using video analysis as a teaching technique. The data suggest that older and more experienced riders value improving equitation and horse control, and find it useful to view and evaluate other riders. Younger riders find more value in watching themselves and discussing the experience. Interestingly, female riders appear to dislike viewing themselves ride more than male students. This information can help provide direction to the future of SUU’s and other equine programs.

Instructional Strategies For Equine Students With Visual Impairments

S. R. Malone and C. Schneider, Morehead State University, Morehead, KY
Contact Email: ruequine@gmail.com

This case study focused on one student with visual impairment enrolled in an equine health and disease class. The class structure involved two lectures each week and one laboratory class. Historically the labs were very hands on and often involved students watching a veterinary procedure or handling the horses. This case study focused on efforts made to provide the visually impaired student with the same learning experiences as the other students. The student was able to participate in all labs covering a variety of topics, from body condition scoring to wound treatment. The student also completed hands on tasks including leg wrapping and taking vital signs. Assistive technology that was beneficial under these circumstances is also highlighted to assist faculty that have visually impaired students enrolled in animal science classes with a laboratory component. The most challenging topics to make accessible to this student included behavior, which involved watching videos of horse behavior and a tour of a veterinary clinic. This student will continue to be involved in animal science courses within the department and hence this study is also reflective to improve their experience in the future. The goal of this project is to assist other faculty members that may have a visually impaired student in an animal science class.

The Equine Assisted Activities And Therapies (Eaat) Industry – A Perspective From The Professional Association Of Therapeutic Horsemanship International (Path Intl.)

S. Albrecht, CAE, PATH Intl., Denver, CO, salbrecht@pathintl.org

The Professional Association of Therapeutic Horsemanship International (PATH Intl.) is part of the equine assisted activities and therapies (EAAT) industry. PATH Intl. provides individual membership, certifications and facility accreditation for those individuals and organizations providing therapeutic horsemanship to individuals with special needs. PATH Intl. has more than 7,000 members (4,000 of whom are certified) and 850 center members (partnering with 7,500 equines to serve 61,000 participants). PATH Intl. also sets safety and performance standards followed by therapeutic riding centers.

Over the past three years, PATH Intl. has undertaken several initiatives to better understand the scope of EAAT, both domestically and internationally. PATH Intl. has surveyed industry professionals to understand the current demographics, employment engagement, value and future opportunities for individuals and organizations within EAAT.

This presentation will present data from those surveys, and will include hours worked, salaries, and other key demographics. In addition, trend data from six years of annual collection will be presented showing growth, specialties served, and other key industry analysis. Insight into future PATH Intl. plans will be shared, including: independent third-party accreditation of PATH Intl. certifications; new specialty areas of practice, including equine assisted learning (EAL) and equine facilitated psychotherapy (EFP); partnerships with the U.S. Department of Veterans Affairs, Wounded Warrior Project, and others; and our association's focus on quality assurance. Gaps within the current knowledge base will also be presented. Perhaps most importantly, this presentation will discuss application and certification trends within the field that are directly related to the concept of "pipeline management" – how NAEAA member institutions students can best understand, prepare, and grow in the field of EAAT.

PATH Intl. has become more data driven in its strategy, and this presentation incorporates three of the five NAEAA Standards of Excellence for Equine Undergraduate Education: Trajectory of Graduates, Program Reputation, and Program Sustainability.

PATH Intl. wants to share as much data as possible with NAEAA members in order to allow educators to better grasp the scope, challenges and opportunities of the EAAT industry.

References: Various PATH Intl. surveys, studies and documents

Integrating An Equine-Assisted Therapies Course Into The Liberal Arts Curriculum

A. Rumore, Randolph College, Lynchburg, VA, USA 24503

Contact email: arumore@randolphcollege.edu

Randolph College is a small liberal arts college (SLAC) with a growing Equine Studies minor program. The College encourages all students to embrace a 21st-century liberal arts curriculum through the global lens of its Quality Enhancement Program (QEP), *Bridges Not Walls*. The three facets of the QEP, Knowledge, Skills, and Attitudes, are built off the work of Deardorff (2006; J. of Studies in International Education 10(3):241-266) and are met by students through an Intercultural Competence (IC) graduation requirement. But few courses within the College's curriculum qualify for IC designation because they lack an external or interactive component. Thus students are required to venture beyond the classroom to complete this academic, but non-credit bearing, obligation. The recent addition of an Introduction to Equine Assisted Therapies course to the Equine Studies program was designed to meet the needs and interests of our students and will now also provide an opportunity for students to fulfill the IC graduation requirement. The development and implementation of this course was not hurried; it required consultation and coordination between the faculty of multiple disciplines, administrators, and community non-profit organizations. Furthermore the IC designation and the course's suitability within the liberal arts curriculum had to be carefully justified to and approved by the faculty of the College.

Equine Assisted Therapies (EATs) are used in treatment and enrichment of a diverse set of individuals including (but not limited to) mentally disabled, physically handicapped, economically disadvantaged, academically challenged, and incarcerated or recently released individuals. Successful implementation of EAT requires knowledge of these circumstances and fundamental skills in interacting with them are directly related to the three components of Randolph's *Bridges Not Walls* QEP. Equine-assisted therapy is also an excellent example of an interdisciplinary field that requires the breadth of a liberal arts curriculum as it is grounded in an understanding of social and behavioral science such as sociology, psychology, education, and communication. Students enrolled in the Introduction to Equine Assisted Therapies course will gain first-hand knowledge of cultures and backgrounds different from their own through classroom instruction by a PATH International certified instructor. This will then be followed by an active learning component at a local therapeutic riding center specializing in academically at-risk and physically handicapped youth. Students will get a chance to interact with these groups and fully understand the scope of knowledge required for a positive EAT experience to occur. We envision that completion of this course will adequately prepare students for future Experiential Learning (ExL) or internship opportunities involving EAT and further predict the course will allow students to better fit the IC requirement into their academic plan in a meaningful way.

Service learning: Strategic teaching for Equine Assisted Activity and Therapy

Kathy Splinter-Watkins, MOT, OTR/L, HPCS, FAOTA
Eastern Kentucky University, Richmond, KY; Contact: Kathy.Splinter-Watkins@eku.edu

ABSTRACT:

An increasing number of students in university and professional programs desire learning experiences through university coursework with hands on experiential learning. In the Department of Occupational Science and Occupational Therapy we have taken this to heart and developed several courses that provide that all important experiential learning within a service learning format. In this presentation I will discuss service learning within a course entitled, Equine Assisted Activity. The progression of learning through service is integral to students' success in their future directions when they are then in the Occupational Therapy program.

Connecting clinical practice with academia has been a long standing tradition and necessity in educational programs for physical, occupational and speech and language therapists. Introducing students early on to service learning where one gains volunteer experience with a community program can be important for establishing an ongoing interest. Equine assisted activity and therapy (EAAT) (PATH, Intl.) is one such interest that students profess.

Service learning can be personally transformative and useful to the community, but also develops meaningful personal connections, leadership and critical thinking skills (Eyler & Giles, 1999). Through a significant learning cycle of action and reflection, a commitment to both service and scholarship can be developed. The resulting significant learning (Fink, 2003) provides the link between the students' desires to "help others" and the faculty's commitment to developing prized attributes for these future occupational therapists. Additionally the community program benefits from volunteers who commit to ongoing service.

This paper sets out to 1) define, 2) explore and 3) analyze the use of service learning as a link to the study of Equine Assisted Activity and Therapy. Discovering the occupations within service learning opportunities and bringing this into the classroom allows students to apply critical thinking and reflection with a real world application.

OBJECTIVES:

- 1) Define service learning for significant learning in Equine Assisted Activity and Therapy.
- 2) Explore innovative teaching-learning strategies through reflective assignments on volunteering with community programs.
- 3) Analyze student responses to involvement in a community setting that enhances classroom learning.

REFERENCES:

- Fink, L. D. (2013). *Creating significant learning experiences*. San Francisco, CA: Jossey-Bass.
- Eyler, J. & D. Giles. (1999). *Where's the learning in service-learning?* San Francisco, CA: Jossey-Bass.
- Kinnevy, S. and Boddie, S. (2001). *Developing community partnerships through service-learning: Universities, coalitions and congregations*. Michigan Journal of Community Service Learning, Fall, 44-51.

**Advancing the Equine Academic Discipline through Increased
Cooperation and Communication**

NAEAA

NATIONAL ASSOCIATION OF EQUINE AFFILIATED ACADEMICS

The National Association of Equine Affiliated Academics (NAEAA) encourages increased cooperation and information sharing between colleges and universities with undergraduate curricular offerings in fields affiliated with equine disciplines.

Goals

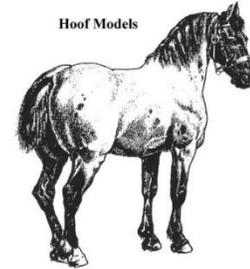
- Provide a venue to share ideas and information concerning equine programs.
- Provide assistance to colleges and equine programs to develop, expand and improve curricular offerings.
- Develop a comprehensive database of “best practices” – ranging from the optimum number of students in a riding class to ways to work with animal right activists on or near a campus.
- Provide assistance to faculty/staff in developing program quality standards for informal assessment or required formal assessment.
- Develop national and international internship and exchange opportunities for students in member institutions.
- Develop faculty exchange programs between member institutions.

Website: www.NAEAA.com



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