

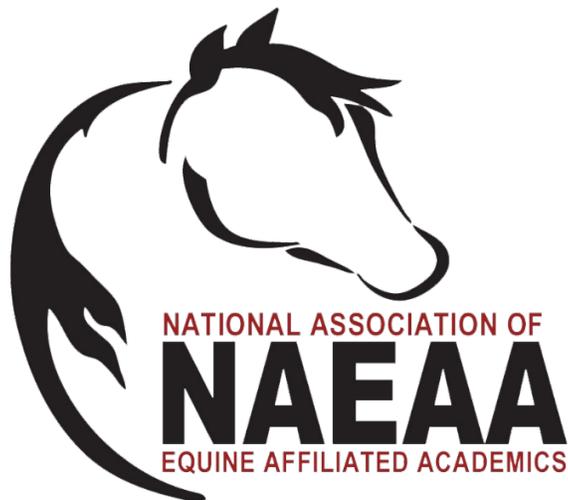
13th Annual NAEAA Conference May 31st-June 2nd, 2022

13th *Annual* **NAEAA Conference**

May 31st -June 2nd, 2022



hosted by Utah State University in beautiful Logan, Utah!



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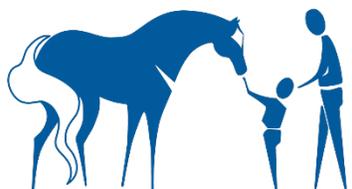


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* indicates presenting author

Welcome!

Dear Colleagues,

I am delighted to welcome to you to the 13th Annual Conference of the National Association of Equine Affiliated Academics (NAEAA). NAEAA Annual Conferences are designed to advance the equine academic discipline through increased cooperation and communication, and this year's program is sure to spark collaborative discussion around topics important to undergraduate equine programs. It's been three years since our last in-person gathering, and I know many of you are looking forward to the inspiration, information sharing, networking, and sense of community that are hallmarks of this annual event. Whether this is your first NAEAA Annual Conference, or you're a long-time attendee, I'm glad you have chosen to join us, and am certain that the next few days will provide you with new contacts, insight, and ideas that can benefit your own equine program.



Speaking of benefits, I'm happy to say that over the past year, the NAEAA Board of Directors has worked hard to introduce new efforts to better serve the membership, such as our expanded awards program and an illuminative NAEAA Book Club. Additional plans are in the works for timely, interactive webinars on a variety of topics relevant to undergraduate equine programs, and also new ways to engage our undergraduate and graduate student members. We are always looking for additional ways our organization can help its members, so if you have a great idea you'd like to see pursued, please reach out to me or one of the other NAEAA Board Members in attendance at the conference. We'd love to hear from you!

I would like to thank the hard-working members of the NAEAA Annual Conference Committee for their year-long efforts in scheduling and planning this year's conference. We are fortunate to be able to visit beautiful Logan, Utah and the campus of Utah State University this year, and I want to personally thank our in-state hosts, Dr. Karl Hoopes of Utah State University, and Mr. Lee Wood of Southern Utah University, for overseeing the planning efforts. Additionally, we are especially grateful for our NAEAA Partners and Annual Conference Sponsors who make it possible for us to keep this event affordable for all who attend! Finally, I would like to thank the rest of the NAEAA Board of Directors, including our Executive Director Dr. Karin Bump, for their wonderful help not only in conference planning, but helping me navigate my first year as Board Chair. I know we are all excited to help NAEAA achieve its goals and serve our nation's equine academic programs!

Sincerely,

A handwritten signature in blue ink that reads "Rebecca K. Splan".

Rebecca K. Splan, PhD
Chair, NAEAA Board of Directors

Making this conference possible

Annual Conference Committee

- Karl Hoopes (Co-Chair)
- Lee Wood (Co-Chair)
- Amy Burk
- Aubrey Jaqueth
- Jacquelyn Bowser
- Kelly Riccitelli
- Trinette Jones
- Betsy Greene

2021-2023 NAEAA Board of Directors

(year joined the board)

- **Chair:** Rebecca Splan (2019)
- **Vice-Chair:** Sara Mastellar (2020)
- **Secretary:** Leslie Janecka (2016)
- **Treasurer:** Lee Wood (2019)
- Janice Holland (2016)
- Lynn Taylor (2016)
- Kim Guay (2018)
- Grey Parks (2019)
- Shea Porr (2020)
- Debra Powell (2020)
- Betsy Greene (2021)
- Jessica Suagee-Bedore (2021)
- Karl Hoopes (2021)

Advisors to the Board

- **Executive Director:** Karin Bump
- Tim Williams
- **Preceding Board Chair:** Amy Burk



About NAEAA

Founded in 2007, NAEAA is a non-profit professional organization representing individuals from public and private institutions and the equine industry that strive to educate undergraduates within an equine academic program.

Our core belief is that there is educational and societal value in the equine disciplines of study.

Our mission is to strengthen post-secondary equine academic programs, provide networking opportunities, and facilitate increased cooperation and information sharing among our members.

NAEAA association goals include:

- 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.

More about NAEAA on our organization website: <https://www.naeaa.com/>



Past conferences

2021 VIRTUAL
2019 ASHEVILLE, NC
2018 STEPHENVILLE, TX
2017 MINNEAPOLIS, MN
2016 HACKETTSTOWN, NJ
2015 ST. PETE'S BEACH, FL

2014 LOUISVILLE, KY
2013 MESCALERO, NM & NEWARK, DE
2012 BOZEMAN, MT
2011 MURFREESBORO, TN
2010 CAZENOVIA, NY
2009 KEYSTONE, CO

Current standing committees

Annual Conference

Karl Hoopes (Co-Chair)
Lee Wood (Co-Chair)
Amy Burk
Aubrey Jaqueth
Jacquelyn Bowser
Kelly Riccitelli
Trinette Jones
Betsy Greene

Diversity & Inclusion

Karin Bump (Co-Chair)
Debra Powell (Co-chair)
Grey Parks
Jessica Bedore
Sarah Rigg
Bob Coleman
Camie Heleski

Communications

Sara Mastellar (Co-Chair)
Leslie Janecka (Co-Chair)
Tim Williams
Lena Luck
Cory Kieschnick
Jennifer Earing
Danielle Smarsh
Lanae McDonald

Research

Rebecca Splan (Co-Chair)
Shea Porr (Co-Chair)
Amy Biddle
Jill Stowe
Kim Cole
Lena Luck

Standards of Excellence

Janice Holland (Co-Chair)
Lynn Taylor (Co-Chair)
Karin Bump (Co-Chair)
Kelli Munns
Laurie Chapman-Bosco
Kathi Jogan

Student Involvement

Kim Guay (Co-Chair)
Kristen Wilson (Co-Chair)
Stephanie Jones
Casie Bass
Katheryn Cerny
Karen Wimbush

Awards

Shea Porr (Chair)
Crystal Smith
Michelle Kibler

2022 NAEAA Conference Schedule

Utah State University, Logan, UT

Tuesday, May 31, 2022 (DBH President's Hall)	
2:00 pm – 6:30 pm	Registration Open
3:00 pm - 5:00 pm	NAEAA Board Meeting
6:00 pm – 8:00 pm	Welcome Reception Welcome by NAEAA Board Chair, USU Local Committee
Wednesday, June 1, 2022 (Eccles Conference Center Rooms 205/207)	
7:30 am – 8:30 am	Breakfast
8:00 am – 10:00 am	Registration Open
8:30 am – 9:00 am	Opening presentation – Dr. Ken White, Dean of the College of Agriculture and Applied Science at USU
Session 1. Workshop: Teaching Controversial Topics, with Emphasis on Management of Feral Equids	
Moderator – Lee Wood, Southern Utah University, Cedar City, UT	
9:00 am – 10:00 am	Mustang management in the western United States – Gus Warr, <i>Bureau of Land Management, US Department of the Interior, Erda, UT</i>
10:00 am – 10:15 am	Break
10:15 am – 11:15 am	Panel Discussion - Gus Warr, <i>Bureau of Land Management, US Department of the Interior, Erda, UT</i> , Kathy DeGonia, <i>President of Piceance Mustangs, Grand Junction, CO</i> , Sloane Milstein, <i>Ed.D., Colorado Mesa University, Grand Junction, CO</i> , Tammy Pearson, <i>Beaver County Commissioner, Minersville, UT</i>
11:15 am – 12:00 pm	Tools and approaches for exploring 'hot topic' issues in educational settings – Karin Bump, <i>NAEAA Executive Director, Cazenovia, NY</i>
12:00 pm – 1:15 pm	Lunch and NAEAA General Meeting
Session 2. Graduate Student Presentations	
Moderator – Betsy Greene, University of Arizona, Tucson, AZ	
1:15 pm – 1:30 pm	Continuing impacts of COVID-19 restrictions on collegiate equestrian student engagement and morale TA Fortune*, ML Santiago, CA Porr, <i>Murray State University, Murray, KY</i>

1:30 pm – 1:45 pm	Development and validation of a basic ground skills assessment for equine-assisted services SJ Andersen*, M Pate, H Clement, J Smith, Judd-Murray, <i>Utah State University, Logan, UT</i>
1:45 pm – 2:00 pm	Students' perception of teaching tools in online equine courses compared to traditional in-person courses BL Gibbens*, L Luck, LK Karr, <i>University of Nebraska-Lincoln, Lincoln, NE</i>
2:00 pm – 2:15 pm	A pilot observational study of recreational trail riding for veterans with substance use disorder KH Hoopes, M Osborne*, WR Marchand, K Joubert, E Nazarenko, H Black, W Klinger, S Sheppard. <i>Utah State University, Logan, UT; Veterans Affairs Salt Lake City, Salt Lake City, UT</i>
2:15 pm – 2:30 pm	Break
Session 3. In the Classroom and Beyond Moderator – Lena Luck, University of Nebraska-Lincoln, Lincoln, NE	
2:30 pm – 2:45 pm	Educating horse owners to assess vital signs and other health parameters EA Greene*, SL Mastellar, <i>University of Arizona Tucson AZ; Ohio State ATI, Wooster, OH</i>
2:45 pm - 3:15 pm	Workshop: Teaching equine nutrition with Feed XL AS Biddle, AB Johnson, <i>University of Delaware, Newark, DE</i>
3:15 pm – 4:00 pm	Workshop: NAEAA Indicators of Excellence Karin Bump, <i>NAEAA Executive Director, Cazenovia, NY</i>
4:30 pm	USU Equine Facility Tour, Dinner, and Demonstrations by Local Horse Industry Members
Thursday, June 2, 2022 (Eccles Conference Center Rooms 205/207)	
Session 4. Teaching Equipment-Related Skills in Equine Programs Moderator – Sara Mastellar, Ohio State ATI, Wooster, OH	
7:00 am – 8:00 am	Breakfast
8:00 am – 8:30 am	Agricultural equipment operation skills desired by employers, use, and safety in the equine industry SL Mastellar*, K. Bennett-Wimbush, L. Janecka <i>Ohio State ATI, Wooster, OH; Kentucky Equine Management Internship, Lexington, KY</i>
8:30 am – 8:45 am	Discussion: Teaching equipment-related skills in equine programs
Session 5. Poster Session	
8:45 am – 9:30 am	Break
poster	Ride Utah! Veteran participants' safety on trail rides AP Shank*, <i>Utah State University, Logan, UT</i>

poster	Teaching Tip: Stringing it all together SL Mastellar*, <i>Ohio State ATI, Wooster, OH</i>
poster	Equine science students investigate sustainable management practices of free-roaming horses in eastern Kentucky LG Brock*, KL Kaufman, <i>Morehead State University, Morehead, KY</i>
Session 6. Use of authentic learning experiences to improve student skillsets Moderator - Betsy Greene, University of Arizona, Tucson, AZ	
9:30 am – 9:45 am	Survey of students' perceptions of using online case scenario examination during COVID-19 pandemic EM Abdelfattah*, FJ Navas-Gonzalez, AK McLean, <i>UC Davis School of Veterinary Medicine, Davis, CA; University of Cordoba, Spain</i>
9:45 am – 10:00 am	Preliminary study of the contraceptive effect of a self-assembling intrauterine device (iUPODs) in mares maintained in a paddock with a fertile stallion KH Hoopes*, DM Gradil, DK Vanderwall, H Clement, BA Sarnecky, Chris Davies. <i>Utah State University, Logan UT</i>
10:00 am – 10:15 am	Equine parturition as an experiential learning exercise HM Clement*, <i>Utah State University, Logan, UT</i>
10:15 am – 10:30 am	Break
Session 7. Building Community and Resources for Equine Academics	
10:30 am – 11:30 am	Student Panel and Discussion: Helping under-represented students feel more networked to the industry, the department, and the field of equine science J. K. Suagee-Bedore, C. Heleski, D. Powell, K. Bump, G. Parks, S. Rigg, <i>Virginia Tech, Blacksburg, VA; University of Kentucky, Lexington, KY; Hocking College, Nelsonville, OH; NAEAA Executive Director, Cazenovia, NY; ProTriton Feed, LLC, Cookeville, TN; University of New Hampshire, Durham, NH</i>
11:30 am – 12:15 pm	Workshop: Developing a periodic census of US undergraduate equine programs RK Splan, CA Porr, AS Biddle, L Luck, K Cole, CJ Stowe, <i>Delaware Valley University, Doylestown, PA; Murray State University, Murray, KY; University of Delaware, Newark, DE; University of Nebraska-Lincoln, Lincoln, NE; The Ohio State University, Columbus, OH; University of Kentucky, Lexington, KY</i>
12:15 pm – 1:30 pm	Lunch and Awards Presentation
1:30 pm	Adjourn and Safe Travels Home!

Session 1. Workshop: Teaching Controversial Topics, with Emphasis on Management of Feral Equids

Moderator – Lee Wood, Southern Utah University, Cedar City, UT

Mustang management in the western United States

Gus Warr, Bureau of Land Management, US Department of the Interior, Erda, UT

Kathy DeGonia, President of Piceance Mustangs, Grand Junction, CO

Sloane Milstein, Ed.D., Colorado Mesa University, Grand Junction, CO

Tammy Pearson, Beaver County Commissioner, Minersville, UT

Eric Thacker, PhD, Range Management Specialist, Utah State University, Logan, UT

Tools and approaches for exploring ‘hot topic’ issues in educational settings

Karin Bump, NAEAA Executive Director, Cazenovia, NY

Working with hot topic controversial issues in undergraduate education has a variety of benefits to student learning. Among these are improvements in critical thinking and a greater understanding of civic responsibilities. At the same time, discussion of controversial issues can become heated and even hurtful without a pedagogical approach that manages and regulates for respectful dialogue. One such tool is the Toulmin Method for Argument Analysis. Created by late philosopher Stephen Toulmin (2003), the method involves breaking out statements of fact into various components, most notably the claim, evidence, and warrant. In this session, the Toulmin method will be introduced, and then utilized to debrief and explore the information presented by the Guest Speaker and panelists regarding Wild Horse and Burrow management; a topic often seen as controversial. In doing so, attendees will leave having experienced the Toulmin Method first-hand and be able to utilize it within their home institutions and communities.

Session 2. Graduate Student Presentations

Moderator – Betsy Greene, University of Arizona, Tucson, AZ

Continuing impacts of COVID-19 restrictions on collegiate equestrian student engagement and morale

TA Fortune, ML Santiago, CA Porr, Murray State University, Murray, KY*

Previous research has shown that COVID-19 biosecurity restrictions had a negative impact on collegiate students' morale. Even though mandated restrictions are beginning to ease, they are still required in many university classrooms and athletic events. While some collegiate equestrian teams have returned to a more normal practice and competition schedule, continued requirement for biosecurity measures may impact student experiences and behaviors. The objective of this study was to evaluate the continuing effect of COVID-19 restrictions on collegiate equestrian team student engagement and morale. A survey was developed in SurveyMonkey® and distributed to coaches for six collegiate equestrian organizations: Intercollegiate Horse Show Association, Intercollegiate Dressage Association, National Intercollegiate Rodeo Association, National Collegiate Equestrian Association, Intercollegiate Eventing, and Intercollegiate Polo. The survey was open for five weeks and collected 24 usable responses. Descriptive statistics were completed using Microsoft Excel. Restrictions related to COVID-19 continued to impact students in 2021. During the spring 2021 semester, 37.5% (n=9/24) of teams were able to practice but not show. In contrast, all 26 responses (100%) indicated teams were able to do both in the fall 2021 semester. Compared to a previous survey, the most common restrictions continued to include social distancing and hand sanitizer use, but the incidence of each decreased. From spring to fall 2021, social distancing restrictions decreased from 79.2% (n=19/24) to 66.7% (n=16/24), and hand sanitizer use decreased from 70.8% (n=17/24) to 50% (n=12/24). Attitude and socialization continued to be negatively impacted (58.3%, n=14/24, and 54.2%, n=13/24, respectively), however, dedication improved (70.8%, n=17/24). Based on responses, increased ability to practice and compete appears to have improved student dedication, but continued restrictions still have a negative impact on student morale.

Development and validation of a basic ground skills assessment for equine-assisted services

SJ Andersen, M Pate, H Clement, J Smith, Judd-Murray, Utah State University, Logan, UT*

Equine-assisted services (EAS) incorporate the interaction of humans who face mental, physical, emotional, and/or social challenges and equines for therapeutic purposes. Recreational, physical, mental, social, and/or emotional goals are met through various EAS such as therapies, learning, and horsemanship. Due to equine size and fight or flight tendencies, equine's should be carefully chosen for their roles in EAS programs. Utah State University's EAS program produced and validated an assessment tool used to evaluate equines for suitability in EAS unmounted programs. This assessment tool was designed to meet the recommendations of those in the equine industry seeking to reduce equine-related human injuries as well as the Professional Association of Therapeutic Horsemanship International (PATH) standards. PATH states that EAS centers should use an unbiased equine assessment tool to conduct equine evaluations. Thus, the Basic Ground Skills Assessment (BGSA) was created and tested for inter-rater reliability, intra-rater reliability, and validity. Through scoring by EAS professionals and collection of equine physiological parameters of stress including heart rate and serum cortisol levels, the BGSA was demonstrated to be reliable and valid. These results could lead to the use of the BGSA as a standardized evaluation tool for EAS unmounted programs. Additionally, use of the BGSA has the potential to decrease the occurrence of unmounted human injuries caused by equine stress related behaviors by screening equines with a validated assessment tool prior to their involvement in EAS.

Students' perception of teaching tools in online equine courses compared to traditional in-person courses

BL Gibbens, L Luck, LK Karr, University of Nebraska-Lincoln, Lincoln, NE*

Online learning has become the new “normal” when it comes to post-secondary education. Over the last few years, significant changes in education have resulted in an increased number of online courses. Approximately 28% of students seeking higher education participate in at least one online course and 14% are enrolled exclusively in distance or online programs (Allen and Seaman, 2016). However, courses that are typically hands-on, like equine science, may be more challenging online. The hands-on experiences in equine science classes help prepare students for future careers. Due to an increase in students choosing to take courses online, a review of online teaching methods was conducted to determine students' preferred teaching tools in an online equine course. The survey was sent out to approximately 10 universities that offer equine science courses online through members of the National Association of Equine Affiliated Academics (NAEAA) and equine program directors to solicit student participation. Participation was limited to college students that had previously or were currently enrolled in an online equine-focused course and was completely voluntary. Of the 77 respondents, 71 (92%) were female, 6 (8%) males, and the majority (95%) white. The primary reasons students chose an online equine science course was because it fit their schedule better (n = 8; 24.5%) and the course was only offered online (n = 36; 23.2%). Students found videos (n = 62; 92.5%) and readings (n = 57; 85.1%) were extremely or somewhat beneficial teaching methods in online equine courses. Half (n = 34; 50.8%) of the students felt they learned as much in their online courses as in a traditionally taught equine course. Additionally, students indicated they received a quality education in equine science courses whether taught online (n = 55; 82.1%) or in a traditional in-person (n = 49; 73.1%) format.

A pilot observational study of recreational trail riding for veterans with substance use disorder

KH Hoopes, M Osborne, WR Marchand, K Joubert, E Nazarenko, H Black, W Klinger, S Sheppard. Utah State University, Logan, UT; Veterans Affairs Salt Lake City, Salt Lake City, UT*

Military veterans experience high rates of addictive disorders. Effective treatments exist, however challenges include partial effectiveness of current interventions, treatment resistance, and high relapse rates. Complementary approaches, such as equine-assisted interventions (EAIs), have the potential to enhance treatment engagement and response among this population. There is a growing body of evidence that EAI participation may result in reduction of anxiety and depressive symptoms as well as enhanced quality of life and improved interpersonal interactions and resilience. A recent study was conducted to assess the safety, feasibility, and preliminary outcomes of recreational trail riding for veterans with addictive disorders. The study was a joint pilot project conducted by Utah State University Equine Extension and the United States Veterans Health Care Administration Medical Center. Participants were 18 veterans; 13 males and 5 females. All had at least one addictive disorder. A recreational trail ride of approximately two hours duration was conducted. Pre- and post-intervention evaluation instruments, included The State-Trait Anxiety Inventory, Craving Experience Questionnaire, Positive and Negative Affect Scale and Conner-Davidson Resilience Scale were utilized to assess changes in anxiety, craving, affect, and resilience, respectively. Regarding psychological instruments score changes pre- to post-intervention, Wilcoxon signed rank tests revealed statistically significant changes pre- to post-intervention in scores, with large effect size, for the STAI, CEQ, and PANAS positive and negative; the medians of the differences for these measures are - 3.34, - 4, + 3, - 5.5, respectively; the 95% confidence intervals are (- 13.3, - 1.7), (- 14, - 2), (1.5, 6.5), (- 8.5, - 3), respectively. There was not a statistically significant increase in resilience, as measured by the CDRS. Results indicated the intervention was safe and feasible to utilize as there were no adverse outcomes to patients, staff, or equines. There were significant pre- to post-intervention decreases in anxiety, negative affect and craving as well as increased positive affect. Resilience increased but did not reach statistical significance. These results indicate that recreational trail riding is safe and feasible to utilize for this population. Preliminary outcomes suggest that this intervention has the potential to be beneficial to for veterans with addictive disorders. Lastly the psychological instruments used in this intervention appear to be appropriate for use in future investigations.

Session 3. In the Classroom and Beyond

Moderator – Lena Luck, University of Nebraska-Lincoln, Lincoln, NE

Educating horse owners to assess vital signs and other health parameters

EA Greene, SL Mastellar, University of Arizona Tucson AZ; Ohio State ATI, Wooster, OH*

While horse owners/enthusiasts can often recite normal horse vital sign values, they sometimes lack competency in taking horses' vital signs. Observation skills are key to good management. The Southern Arizona Equine Health Symposium organizers intentionally plan several "Horses 101" topics targeting new horse owners (or as refreshers). One session to teach/improve horse owners' abilities to take vital signs was "Horses 101: Knowing What's Normal" offered in 2019 and 2020. A hands-on session was not possible during the virtual event in 2021, but it was offered again in 2022. A survey was administered to evaluate the impact of the session (n=69 total respondents). Evaluations gathered attendees' views on degree of usefulness for horse care decisions, intended changes in attendee behavior, instructor effectiveness, and knowledge gained in each presentation (Likert scale from 1-very little to 5-very much). For this session respondents reported that they found the session very useful (4.6 + 0.5; average + SD) and that they plan to change their management as a result (4.3 + 0.8). The instructor presented clearly (4.5 + 0.6) and they gained knowledge (a 1.2 + 1.1 improvement over prior knowledge). A need was identified for a comprehensive document with a systematic approach to observe and assess horses in one's care to support this programming. A publication (<https://tinyurl.com/KnowingNormal>) was developed based on the "Knowing Normal" workshops and utilizing undergraduate course laboratory activities, providing an excellent overview of major vital signs. It has extensive pictorial explanations describing each observation with normal (green)/abnormal (red) column examples. Over 200 copies were distributed at the 2022 event.



Workshop: Teaching equine nutrition with FeedXL

AS Biddle, AB Johnson, University of Delaware, Newark, DE

Are you looking for an engaging and flexible way to teach equine nutrition to undergraduate students? FeedXL is an online equine nutrition platform that includes a deep database of common equine feedstuffs in the US, Australia, and Europe. FeedXL also permits the user to upload their own hay, pasture and feed analyses to their user portal. FeedXL allows users to formulate equine diets for unique needs or conditions and produces a comprehensive diet analysis and actionable dietary recommendations following NRC guidelines. The FeedXL dietary nutrient report includes digestible energy, crude protein, lysine, minerals, vitamins, and total intake values. And, access is free for educators!

In this presentation we will demonstrate how FeedXL works, share how we are using this program in our Equine Nutrition class, and give participants the opportunity to brainstorm ways that this program could be used in their classes. Participants will leave with experience with FeedXL, ready to use activities, and a list of ideas from other participants to implement in their own courses.

Workshop: NAEAA Indicators of Excellence

Karin Bump, NAEAA Executive Director, Cazenovia, NY

In 2010, members of the National Association of Equine Affiliated Academics engaged in a series of working sessions to develop an initial list of 'Indicators of Excellence (IOE)' for undergraduate programs of study in the equine disciplines. That initial list was then used in a 2011 survey of members to gauge the level of importance of each indicator along with the ease in which respondents felt data could be gathered and used to assess both student and program success in each area. Through ongoing discussion and collaboration, identification of five IOE Constructs for building and evaluating programmatic excellence were determined: Equine Student Knowledge and Skills; Critical Thinking and Communication; Trajectory of Graduates; Program Reputation; and Program Sustainability. Through additional discussions, workshops, input from working groups, and limited site application, a toolkit for use in internal and/or external academic review and/or self-study was established. More than ten years after the initial discussions, the materials have again been reviewed with updates geared towards streamlining the process for wider application. The tool kit is now ready for member input for a renewed launch in 2022-2023.

Session 4. Teaching Equipment-Related Skills in Equine Programs

Moderator – SL Mastellar, Ohio State ATI, Wooster, OH

Agricultural equipment operation skills desired by employers, use, and safety in the equine industry

SL Mastellar, K. Bennett-Wimbush, L. Janecka Ohio State ATI, Wooster, OH; Kentucky Equine Management Internship, Lexington, KY*

Livestock and equipment cause most reported injuries in agricultural industries. However, courses in agricultural equipment operation are not required in all equine programs. Employees in the equine industry possess horse handling skills but may lack training in equipment operation.

Study 1: An analysis of job postings was used to quantify the need for agricultural equipment operation skills in the equine industry as expressed in job postings. Equine industry job postings (n = 77) were collected between June 2020 and February 2022. Criteria for inclusion were being full time positions, having reasonably detailed job descriptions, and judged by faculty to be of potential interest to graduates of Ohio State ATI's equine programs. Job postings from 22 states were included, but the greatest shares of the postings were from Kentucky (22%) and Ohio (17%). For those postings listing pay (n=39), projected earnings were \$36,000 ± \$10,000 (average ± SD). Most (64%) postings explicitly stated that a driver's license was required, but only one posting explicitly required a CDL. Most (53%) postings did not mention agricultural equipment operation; however, some (36%) explicitly listed those as required skills. Tractors were mentioned in 19 postings and trailers in 18 postings as the two most prevalent types of equipment listed.

Study 2: A survey of equine industry supervisors (n = 53, 2020-2021) was conducted to explore agricultural equipment use on commercial horse farms. The survey was sent to supervisory managers identified through internships, alumni, and the Kentucky Equine Management Internship (KEMI). Tractors (73%), ATVs (90.9%), riding mowers (87.5%) and hand operated equipment (95.5%) were the most common employee operated agricultural equipment. The percentage of employees that were reported to operate equipment ranged from 69% for UTVs to 41% for truck/trailers. Safe operation of equipment was extremely important (85, 77.8 and 63%) for tractors, truck/trailers and mowers respectively. Over 95% of farms trained employees individually on operation and safety, however only 54% reported skill evaluation/testing following training. Minor (< \$1,000) property damage caused by employee operated agricultural equipment was reported by 40.7% of supervisors for a 3 year period, fortunately no serious injuries or fatalities were reported.

Discussion questions:

1. Does your curriculum include any training on agricultural equipment operation and /or safety?
 - a. If yes, explain the course / module that the students complete?
 - b. Is the course / module hands on?
 - i. If yes, approximately how much instructional 'seat time' in hours do students acquire?
 - c. Who teaches the course / module?
 - d. If taught within the university, how is this course/module funded?
2. If your college / university does not offer training, do you see the need for a course / module or other type of training for your undergraduate majors?
3. What barriers are there to building this skillset in students?

Link to survey to respond in real-time during the workshop:

https://osu.az1.qualtrics.com/jfe/form/SV_3J116rbMhzh0GY6



Acknowledgements: Special thanks to Mark Schleppe and Debra Powell for providing course materials to facilitate discussion during this workshop.

Session 5. Poster Session

Ride Utah! Veteran participants' safety on trail rides

AP Shank, Utah State University, Logan, UT*

Participant safety on recreational horseback trail rides is critical for success, given that trail riding is considered an inherently dangerous activity due to the prey nature of horses. The aim of this study was to address the variety of preventative safety measures available for trail riding with participants made up of veteran military members. Considered in the findings were included, but not limited to: initial trail selection and suitability for beginning riders, assessment of trail hazards (such as water crossings) that can pose issues for participants or equines, and a staff evaluation of all tack and equipment for proper fit and safety prior to mounting. When considering the veteran participant personal safety equipment, it was recommended to include an ASTM/SEI certified equestrian helmet that had been properly fitted, safety vests, and emergency information/medical information armbands that remained visible and are accessible to pertinent staff when riding. Pertinent equine information was given to participants to ensure safety in basic horsemanship commands (stop, start, and steer), fall prevention, seat and balance techniques, and mitigation of natural equine behaviors such as stopping to graze, or trotting to catch up to a faster horse. All these skills were valuable tools available to the veteran rider that were used to manage their equine mount. Trail riding, while incredibly beneficial to wellness, is an inherently dangerous activity and should only be implemented by knowledgeable professionals capable of addressing and implementing recommended safety measures into their programs.

Keywords: *horseback riding, trail riding, veteran, personal safety equipment*

Teaching Tip: Stringing it all together

SL Mastellar, Ohio State ATI, Wooster, OH*

Activities involving creation foster engagement with material in ways that can help students remember. These activities help students connect pieces of information that they may otherwise struggle to connect when learning through lecture, reading, or even demonstration. However, large three dimensional projects can create logistical issues regarding implementation, collection for evaluation, storage, and display. The following are two activities that use string, so are relatively easy to implement, store, and display.

Digestive tract: Students are tasked with creating an educational display demonstrating the length of the equine digestive tract using string. The length of the different colored strings used correlate to the length of the various digestive organs. Students indicate where digestive secretions are added, nutrients are absorbed and digested along the way. The display is affixed to a classroom building hallway for one year. Each class was challenged to create a better product than the previous year's students (Figure 1).

Figure 1: Representations of the equine digestive tract by students.



Lower limb: Students are tasked with creating a simplified moving representation of lower limb anatomy with a suspensory ligament, a flexor tendon, and an extensor tendon (Figure 2). When pulled the strings flex or extend paper bones held together with brass fasteners. Tape is used on attachment points to affix the string to the paper bones. Considerable appreciation is gained for how the structures of the lower limb interrelate. Each student can take their model with them for later study.

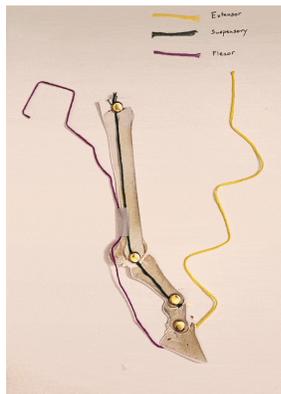


Figure 2: Portable working representation of equine lower limb anatomy.

These two activities are examples of learning via creation using string in the equine sciences.

Equine science students investigate sustainable management practices of free-roaming horses in eastern Kentucky

LG Brock, KL Kaufman, Morehead State University, Morehead, KY*

Since 1970, there has been a tradition of free-roaming horses in Eastern, Kentucky on reclaimed coal mines. For many years this was a sustainable practice to winter horses on these lands. Following the economic downturn in 2008, the population of horses grew beyond a sustainable level as a result of unwanted horses being permanently released. Morehead State University Equine students were tasked with understanding and evaluating the local non-profit organization's management of the free-roaming herd. The criteria of evaluation included pasture management, herd identification, horse health, and population control methods. Throughout this process, students utilized critical thinking and problem solving skills as well as knowledge gained in undergraduate coursework to optimize the sustainable management of free-roaming horses. Based on their findings, application strategies were presented to the community of Eastern, Kentucky.

Session 6. Use of authentic learning experiences to improve student skillsets

Moderator - Betsy Greene, University of Arizona, Tucson, AZ

Survey of students' perceptions of using online case scenario examination during COVID-19 pandemic

EM Abdelfattah, FJ Navas-Gonzalez, AK McLean, UC Davis School of Veterinary Medicine, Davis, CA; University of Cordoba, Spain*

The COVID-19 pandemic presented new challenges to both students and faculty. The push to keep students engaged and facilitate stimulating learning environments in absence of valuable in-person interaction spurred faculty to incorporate novel pedagogical and examination methods into their curricula. The objective of this survey was to determine student preference for case-scenario over traditional in-class/in-person examinations as an online assessment method during the COVID-19 pandemic. A total of 112 students enrolled in Equine Behavior (n=70) and Welfare and Equine Exercise Physiology (n =40) courses respectively were voluntarily asked to complete an online questionnaire during the winter quarter of 2020. The survey consisted of 18 questions targeting students' opinions and perceptions regarding the case scenario exams. A total of 88 (78.6%) completed responses were received from a total of 112 students. Approximately, half of the students (45.5%) slightly or strongly disagreed with offering remote exams in a traditional format with multiple-choice and true-false questions. The majority of respondent students (75.1%) strongly agreed that case scenario exams would prepare them better for a career in the equine industry compared to traditional exams. In conclusion, this study demonstrated that case scenario exams could be used as a replacement for traditional exams in equine courses during online teaching.

Preliminary study of the contraceptive effect of a self-assembling intrauterine device (iUPODs) in mares maintained in a paddock with a fertile stallion

KH Hoopes, DM Gradil, DK Vanderwall, H Clement, BA Sarnecky, Chris Davies. Utah State University, Logan UT*

There is an urgent need for practical methods of population control (i.e., contraception and/or sterilization) for free-roaming (i.e., “wild” or “feral”) horses and burros on Western Public Lands in the United States. The objective of this study was to evaluate the contraceptive efficacy of a novel self-assembling three-part polymer-coated magnetic intrauterine device termed as an intrauterine POD (self-assembling; iUPOD) when there are natural breeding conditions when iUPOD use was managed by veterinary professionals with no prior experience with the device. Six mares were administered an iUPOD and were then housed continuously with a fertile stallion for 91 days. The intrauterine POD retention and contraceptive efficacy were 100%. Two mares had prolonged corpus luteum function (for 37 and 91 days) immediately after iUPOD placement. For the estrous cycles of the other mares, the duration of diestrus was 7.8 ± 2.7 days (mean \pm S.D.). Four of the mares (67%) became pregnant when in a paddock with the same stallion the year after iUPOD removal. These results are encouraging for use of the iUPOD as a practical and reversible method of fertility control in free-roaming horses and burros.

Equine parturition as an experiential learning exercise

HM Clement, Utah State University, Logan, UT*

Utah State University (USU) offers a Bachelor of Science Degree in Animal, Dairy and Veterinary Sciences with an emphasis in Equine Science and Management. An Equine Breeding Program was established to create learning opportunities for undergraduates with respect to mate selection, equine reproduction, colt starting, sales preparation, marketing and ultimately an annual sale to generate revenue and to publicly promote the degree emphasis. In the industry, opportunities to experience equine parturition are often rare. Likewise, student exposure to equine parturition at USU was an area of the curriculum that had not been explored prior to 2016. With the aim of producing graduates familiar with equine parturition and post-natal care, an elective course (Equine Parturition and Post-Natal Care) was successfully developed by the author which includes both undergraduate and veterinary student participants. Lecture is designed to create a foundation of understanding and to specify objectives for student success. Experiential learning is emphasized through repeat peri-partum exams and using multiple technologies to complement identification of imminent parturition and maximize student exposure to each parturition event. Students ultimately form teams for overnight observation and to be on-site to attend each parturition event. Personal mentoring throughout the progression of each case is structured to encourage both student autonomy and support. Weekly class meetings are designed to discuss parturition events, explore questions and events unique to each mare and foal in a way that will amplify learning opportunities for the entire class as each student will have different experiential experiences. Approximately 40 students benefit each spring from this unique course.

Session 7. Building Community and Resources for Equine Academics

Student Panel and Discussion: Helping under-represented students feel more networked to the industry, the department, and the field of equine science

J. K. Suagee-Bedore, C. Heleski, D. Powell, K. Bump, G. Parks, S. Rigg, Virginia Tech, Blacksburg, VA; University of Kentucky, Lexington, KY; Hocking College, Nelsonville, OH; NAEAA Executive Director, Cazenovia, NY; ProTritition Feed, LLC, Cookeville, TN; University of New Hampshire, Durham, NH

Students from historically marginalized (HM) communities, such as Black, African American, Hispanic, LatinX, Indigenous American, and Asian, constitute a small percentage of animal science and equine science undergraduate student populations. For instance, HM students represent 10 and 18.7% of the animal and equine science student populations at Virginia Tech and the University of Kentucky, respectively. These students continue to suffer from what can be interpreted as institutional racial ignorance and institutional exploitation- which then influences these students' opportunities for success in the equine industry. Within the field of animal science these issues have been the subject of minimal research, with one article in the Journal of Animal Science and two in the NACTA Journal. Although one of these manuscripts addressed perceptions of racism and discrimination among students in a College of Agriculture, none investigated methods of improving relationships between HM student populations, faculty, and industry employers. This workshop focuses on elucidating concerns of HM students and helping NAEAA members develop toolkits for improving relationships and promoting diversity of representation at their home institutions. A student panel will interact with NAEAA members with the goal of open dialogue, learning to disrupt our own biases, and fostering a sense of community.

Workshop: Developing a periodic census of US undergraduate equine programs

RK Splan, CA Porr, AS Biddle, L Luck, K Cole, CJ Stowe, Delaware Valley University, Doylestown, PA; Murray State University, Murray, KY; University of Delaware, Newark, DE; University of Nebraska-Lincoln, Lincoln, NE; The Ohio State University, Columbus, OH; University of Kentucky, Lexington, KY

Purpose: Since their origin nearly a century ago, equine affiliated academic programs have realized substantial growth in number, enrollment, and scope among American institutions of higher education. This expansion has been the result of several factors, including shifts in the horse's role in society, and perceived value of an undergraduate degree among those who desire a career in, or adjacent to, the horse industry. However, continued expansion of undergraduate equine programs is not guaranteed, especially given wide-spread contemporary challenges at the institutional level, such as inherent program costs, variable administrative support, and inadequate facilities and/or staffing. For these reasons, the NAEAA Research Committee proposes a quinquennial or decennial census of all U.S. undergraduate equine programs, in which demographic and programmatic data will be collected, analyzed, and summarized, thus providing a novel information resource that can be used for programmatic decision-making, funding requests, and internal or external communication. The purpose of this 45-min workshop is to engage in a conversation regarding current institutional challenges and identify what type(s) of data NAEAA members feel are most meaningful to collect, analyze, and summarize as part of this longitudinal study. Upon completion of the workshop, the NAEAA Research Committee will further refine the census instrument and identify as many participant equine programs as possible both within and outside the NAEAA organization. It is anticipated that the program census would begin in the fall of 2022.

Keywords: *Program analysis, faculty survey, academic census*

2022 NAEAA Awardees

Congratulations awardees!

The National Association of Equine Affiliated Academics (NAEAA) is pleased to be honoring faculty and staff at the [13th Annual NAEAA Conference](#) May 31st-June 2nd, hosted by Utah State University. The NAEAA Don Henneke Educational Impact Award was created in 2013. For the rest of the awards, this is the inaugural year for their awarding. Please join us in congratulating the awardees.

2022 NAEAA Awardees:

- Junior Faculty Award - Aubrey Jaqueth, Ph.D., Wright State University
- Senior Faculty Award - Bob Coleman, Ph.D., University of Kentucky
- Don Henneke Educational Impact Award - Betsy Greene, Ph.D., University of Arizona
- Teaching Award - Angelo Telatin, Ph.D., Delaware Valley University
- Research Award - Shea Porr, Ph.D., Murray State University.
- Service Award - Sara Mastellar, Ph.D., Ohio State ATI
- Support Staff Award - Jenna Reigle, Delaware Valley University

