



Proceedings of the 2023 ELLI Conference  
The University of Tennessee at Martin  
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## **Using Core Principles of Experiential Learning to Design & Refine an Alternative Spring Break Program (or any CoCurricular ExL Program)**

*Jennifer Grimm, Old Dominion University*

A significant number of qualities overlap between the Eight Principles of Good Practice for All Experiential Learning Activities developed by NSEE (National Society of Experiential Education, 1998) and the Eight Essential Elements of a High Impact Practice (Kuh and O'Donnell, 2013). As a regional, four-year public institution worked to implement the university's branded commitment to ExL, called "Experience Guaranteed," members from a working team examined key areas of overlap between HIP and ExL principles. This group distilled the 16 criteria down to 3 overarching elements that should be present in any experiential learning program at the institution. During this session, participants will examine these guiding criteria from the lens of faculty and staff members who oversee co-curricular ExL programs at their institutions. This workshop will provide attendees with a guided self-reflection exercise to evaluate strengths and weaknesses of existing ExL programs or a helpful framework for the design of new co-curricula. An example will be provided for how these criteria were utilized as the framework for redesigning an alternative spring break program. Participants will share key insights gained with one another and benefit from a repository of other attendees' reflections from the session.

## **The Value of Technology in Experiential Learning: Student Managed Investment Funds**

*Brittany Cole, The University of Tennessee at Martin*

I quantify the student value of technology in experiential learning. I measure the value students place on Bloomberg terminal knowledge, analysis, and teaching in a student managed investment fund (SMIF) setting. I survey students pre- and post-course to gauge learning expectations, knowledge, and long-term use of analytical skills gained in managing the SMIF. Students are given portfolio management tasks throughout the semester to foster skill and retention of Bloomberg analysis and portfolio management program coding. Additionally, students are provided information and tasks related specifically to finance certifications like the Securities Industries Essentials exam, the Chartered Financial Analyst exams, and the Certified Financial Planner exam. Students also engage in peer-to-peer mentoring for the assigned Bloomberg tasks and are assigned an official peer mentor to assist with learning, teaching, and retention. Results indicate students place great value on machine learning to achieve goals of professional certifications and employment. Results also show that students both learn from and place high value on the effectiveness of peer-to-peer mentoring to learn the appropriate Bloomberg and portfolio management skills.

## **Giving Students the Competitive Edge in Information Technology**

*Jenifer Soale, University of Cincinnati, School of Information Technology*

Competition plays a significant role in the field of education to encourage engagement of students and enforces the application of knowledge to develop solutions to solve real-world

problems. My passion is to contribute to the development of a successful IT (Information Technology) professional. For the 2022–23 school year I am piloting a competitive event program here at the University of Cincinnati in the School of Information Technology for our Early IT Partners and plan to expand it to our undergraduate and graduate students. Event types vary from a short-term prompt-based event to a 12-week hackathon style format. Competition not only allows students the opportunity to test their skills, but also provides the opportunity to connect with industry partners to sponsor and/or provide us with real-world based scenarios for students to solve. This win-win scenario allows students to engage with employers early in their degree program and provides industry partners with the ability to provide feedback and recommendations to students in the initial stages of their development in the program. For our K-12 partner students', they will have the opportunity to network and seek out a potential co-op employer prior to getting to college. This ability to match employers with students early in the program allows the student to feel confident in their choice of being part of our IT degree program and for industry partners to get the opportunity to help in the development of their future employees.

### **Learning to Teach by Teaching: Lab School Partnerships**

*Jody Blake, The University of Tennessee at Martin*

I always begin my Introduction to Music Education class with the following question: "True or false: Dr. Blake can teach me how to teach." I always answer the question for them - "false." Some students always look perplexed. The fact remains that professional education courses are designed to equip future teachers with tools (theory) for the education profession, not actually teach them how to teach. This requires the student to actually teach (practice). Unfortunately, theory and practice are often disconnected in teacher education courses. The purpose of this presentation is to discuss the importance of early teaching experiences for education majors (in this case, music education majors). Additionally, the presenter will describe a lab school partnership with a local school district that facilitated pre-professional teaching experiences for music education majors. The lab school provided invaluable teaching experiences for participants, allowing them to teach their own music class to real students once per week. The lab school system also provided benefits to the public-school students who normally only received music instruction once weekly, which increased to two times weekly (one day of instruction with the certified music teacher and one day with the prospective student teacher). Both the supervising professor and certified music teacher gave feedback to the teachers under a mentorship system. Throughout this presentation, the themes of learning to teach by teaching, developing local partnerships for experiential learning, and the transferability of this model to other majors will be explored.

## **Synergetic Seminars: An Experiential Strategy for Career Development**

*Laura Walker-Andrews, Western Carolina University*

Higher education practitioners offer invaluable career development services to students, yet it can often be challenging to engage students in these services. Upon entering college, students are often unsure which major to choose, and students' lack of confidence in their major choice can also ultimately affect how they integrate themselves into the college environment. College students benefit from these services that provide them with the support and tools needed to make confident academic and career decisions. Additionally, increasing student engagement in career counseling services can potentially benefit students in multiple ways including providing academic momentum and preparation for the future. How do we not only inform students of these opportunities but ignite an eagerness in them? This session will focus on using synergetic seminars to potentially increase student engagement in career development services.

Synergetic seminars are the result of a student needs assessment and are an experiential strategy that optimizes campus partnerships to market the seminars where career topics are discussed and facilitated by a student and the practitioner. The collaboration between student and practitioner then creates buy-in to engage more students in services. Emerging in the throes of the pandemic, synergetic seminars are a modifiable strategy that can be facilitated both online or in-person. There are also several ways practitioners can adapt this practice to meet the needs of their institution. Synergetic seminars have the ability to holistically support students while creatively engaging them in critical career development services to hopefully ensure persistence and success.

## **Art Exhibits and Obstacle Courses**

*Jennifer Shumway, Union University*

It can be difficult for students in a homogeneous environment to understand how their "life lens" effects their interactions with others. To open their eyes to this challenge, I have incorporated two classroom activities which I refer to Art Day and Obstacle Course Day. Art Day is about the visual lens through which we see and process the world and those around us. How does my position in life; my own experiences, biases, prejudices, preconceptions alter my perceptions? Are others seeing the same things I am? If not, why? This activity involves engaging a piece of art and comparing one's observations to those of someone else followed by a classroom debrief of the impact of our "life lens" on what we see. Obstacle Course Day is about communication. How can one communicate with an individual whose limited understanding or comprehension prevent them from grasping what you are intending to convey? What happens when you are not allowed to use your regular arsenal of terms and expressions? How can you communicate with someone from a different culture that may speak your language, but does not speak your jargon? This activity involves guiding a blinded individual through a specific series of actions using a limited vocabulary. Following the activity, we again debrief as a class to discuss the impact of our "life lens" on our communication defaults. Primarily used in reference to patient care, these activities have applications in any arena in which interactions must occur between individuals from different backgrounds.

## **Creatively Engaging Students through the Use of Multimodal Projects in the Writing Classroom**

*Allie Johnston, Austin Peay State University*

Creatively Engaging Students through the Use of Multimodal Projects in the Writing Classroom  
This session will provide insight on multimodal activities, those involving multiple literacies represented in one medium, introduced in the collegiate writing classroom. The goal of these activities is to engage students in considering the use of the audience in shaping our design choices, from wording to visual representations and beyond. Sample projects, including podcasts, public service announcements, infographics, social media campaigns, and blog posts, from previous classes will be featured. Furthermore, the presenter will share lesson plans, the scaffolding process, students' written reflections on the experience, and ultimate course outcomes in relation to the multimodal assignment. The goal is to inspire you to engage students in this form and to allow students to bring their own communities and experiences into the academic classroom through more non-traditional options, while discussing the challenges and opportunities this assignment sequence brings.

## **Taking the Case Study to the Next Level: Publication**

*Mark Farley, The University of Tennessee at Martin*

*Lajuan Davis, The University of Tennessee at Martin*

During the pandemic, the authors noted an opportunity for businesses and educational institutions to more closely align thinking and attitudes about how to educate students. New hires need to possess specific skills that can be integrated into the workplace, and universities need to incorporate and promote specific skill sets rather than depending on technical schools and informal training. Educators who utilize case studies already incorporate many specific skill sets addressing student deficiencies noted herein. Some objectives that case studies meet include: 1) avoiding plagiarism, 2) promoting peer/group work and assessment, 3) practicing collaborating and communicating with business professionals, 4) improving writing skills, 5) incorporating critical thinking skills, and 6) learning to use appropriate technology. Using rubrics provides structure and guides student work while incorporating real-world information personalizes and authenticates student efforts. This article has demonstrated how university instructors can create rubrics and utilize case studies to enhance student learning of traditional topics and concepts while developing specific skills necessary to succeed in today's job market.

## **Experiential Learning and Outdoor Leadership on the Trails of Chattanooga**

*Bengt Carlson, University of Tennessee at Chattanooga*

This session will discuss some of the history and structure of the Experiential Learning platform (*ThinkAchieve: Beyond the Classroom*) at University of Tennessee at Chattanooga that came out of the last Quality Enhancement Plan, including the current pathways for engagement for

students, faculty and staff in mentored opportunities for reasonable responsibility and reflection ([www.utc.edu /beyond](http://www.utc.edu/beyond)). Among other examples that will be shared, an Honors College course in Fall 2022 co-taught by Experiential Learning Co-Ordinator Bengt Carlson and Religious Studies scholar Dr. Christopher Johnson titled “Pilgrimage, Land Ethics, and Leadership on the Trails of Chattanooga” will be discussed. This course fostered leadership skills by having small groups of students lead class hikes on various trails in the Chattanooga area. After the instructors first modeled the process of mapping out a hike, informing the class of hike details, leading the class on a hike, creating journal reflection questions on readings, and facilitating a discussion on these readings on the hike, students themselves took on all of these responsibilities each week. The leadership groups also produced written reflections on their leadership hikes, including the challenges and successes they encountered. The class culminated in final projects that made use of the interests and skills students already possessed to more deeply engage in the themes of the course in ways that were most meaningful to them.

### **Secondary Teacher Candidates Tutor At-Risk Students in Area Schools**

*Leigh Hester, Athens State University*

Secondary teacher candidates in their Assessment and Evaluation course have the opportunity to participate in a **hands-on learning experience** that allows them to authentically prepare for their culminating student teaching experience while also providing a much-needed resource to at-risk students in area schools. This experiential learning experience involves secondary teacher candidates tutoring a student or students in either middle school or high school, that they have identified as needing extra help in a certain content area such as math, science, history, English, etc. The project begins with teacher candidates reviewing the Quad-A tutoring method (LaFountaine, 2007) which focuses on the four stages of Assess, Assist, Allow autonomy, and Approach again. Teacher candidates then work with area classroom teachers and/or administrators to identify the secondary students that need and are willing to participate in tutoring. This hands-on learning experience is directly correlated to what teacher candidates must do during their student teaching internship as they complete the national edTPA portfolio assessment, which is required for teacher certification in Alabama. Additionally, this experience is representative of what these teacher candidates will do daily once they become a classroom teacher. This tutoring experience demonstrates the impact on learning that these teacher candidates have on the at-risk students as well as improves the confidence of both the teacher candidates and secondary students simultaneously. During this presentation, I will review the purpose and details of the assignment, outcomes and results of the activity, and challenges with implementing the activity both pre and post-COVID.

### **Professional Development Comes to Life with Experiential Learning**

*Lajuan Davis and Samantha Bisnette, The University of Tennessee at Martin*

Professional development is always a topic of discussion in educational arenas when the issue of teaching students soft skills is addressed. Students need to know and practice some basics of professionalism such as emotional intelligence, leadership, etiquette, protocol, networking, organizational skills, etc. but are usually at a loss about how to approach learning these skill sets. To address the gap between teaching/learning hard and soft skills, a professional development class may be warranted. This presentation will offer some how-to's of creating a professional development class, research to support adding such a class to the curriculum, and will include some of the more difficult topics taught in the class, and examples of experiential-learning techniques used to present these sometimes elusive concepts to students.

### **Learning by Teaching AND Serving: Using Partnerships with Non-Profit Organizations to Prepare the Next Generation of Educators, Will Bird\*, The University of Tennessee at Martin, Martin, TN and Emalee Buttrey, Discovery Park of America, Union City, TN**

Agriculture education students at UTM must take AGED 430 - Methods of Teaching Agriculture Subjects before starting their student teaching experience. Within this course, students learn pedagogical methods to deliver content effectively, safely, and meaningfully. Some examples include lecture, demonstration, and case study. Historically, AGED 430 students would create and deliver several micro-lessons utilizing one or more methods to class peers in a campus classroom. To enhance the reality and experience of teaching, and to benefit the partnering organization's mission, students in AGED 430 in the Fall 2022 semester prepared and delivered lessons on two separate occasions at a nearby nonprofit, state-of-the-art museum and heritage park. The mission of the museum is "to inspire children and adults to see beyond." On the first occasion, AGED 430 students worked in teams to develop and present lessons to students in grades 1 - 12 during the museum's monthly Homeschool Day. Lessons and activities were "pollination station," "livestock branding," and "careers in agriculture." On the second occasion, AGED 430 students developed and presented lessons to museum guests as part of regular educational programming, including dairy production and butter-making, and beef production and livestock brand design. Combined, AGED 430 students presented to over 60 individuals, including 41 homeschool students. Feedback from museum participants was overwhelmingly positive. The AGED 430 students, though nervous at first, also reported this was a positive experience. The AGED 430 students believed the experience was a great "stepping stone" in transitioning from micro-teaching with peers to the student teaching placement.

### **From Concept to Creation: Using 3D Printing and Modeling To Enhance Design Thinking**

*Dr. John Xavier Volker, Austin Peay State University*

This paper presents the integration of 3D printing, 3D modeling, and iteration as a learning tool in a creativity class. The objective of the exercise was to challenge students to develop a pencil

holder for watercolor pencils using these tools. 3D printing and 3D modeling technology provided students with an innovative and hands-on approach to design and problem-solving. In addition, these technologies allowed students to rapidly prototype and iterate on their plans, promoting a trial-and-error learning method. This approach allowed students to think critically and creatively and challenge their problem-solving skills.

One of the main advantages of this approach is that it promotes experimentation and encourages students to take risks. Rapid prototyping and iteration allow students to test different design solutions and evaluate their effectiveness in real-time. This approach will enable students to explore other design options, discover new ideas, and make informed decisions about their designs. This approach also allows students to develop a deeper understanding of the design process and the importance of iteration in product development. Through hands-on experimentation, students learn to identify and solve problems and develop a deeper understanding of the relationship between form and function. In conclusion, integrating 3D printing, 3D modeling, and iteration as a learning tool in a creativity class provides students with an innovative and hands-on approach to design and problem-solving. This approach encourages experimentation and risk-taking and promotes the development of critical thinking, creativity, and problem-solving skills. Furthermore, it allows students to develop a deeper understanding of the design process and the importance of iteration in product development.

### **Multidisciplinary Design Thinking Internship Team**

*Dana Parker, University of Cincinnati at Clermont*

In the age of a hyper-competitive job market, internships are essential for college students as they encourage professional and personal skill building, building upon classroom-taught skills, and professional networking. Therefore, UC Clermont's Career Services created and funded an internship that takes place during the summer semester, called the Multidisciplinary Design Thinking Internship Team. The core of the internship is to provide a platform in which college students can collaborate and work with other students representing various academic disciplines to complete professional projects in different fields. Furthermore, as our college's demographic mainly represents non-traditional students, this internship is created and geared towards ensuring that non-traditional students also had opportunities to complete an internship that would be flexible enough to fit within their schedule and receive competitive compensation. To fulfil this objective, the interns work a 15-hour work week for 7 weeks, with only 1 required in-person day, with the rest of the work being able to be done remotely utilizing platforms, such as Zoom. During the 7 weeks, students are assigned varying work cultures to experience first-hand how settings change the use of their skill sets. Last summer, our interns collaborated with the college's Career Services Center (higher-ed), Valley View Foundation (grassroot non-profit) and the American Modern Insurance Group (global for-profit) to complete professional projects that related to the respective fields of site. In all, not only are students able to reap the benefits of an internship, but they are also learning valuable teamwork and collaboration skills with those of different backgrounds. As a medium for



demonstrating our experience with the internship, we plan to present through a small group discussion at the ELLI Conference.

### **High Impact Experiential Learning**

*Dan Nyaronga, SUNY Empire State*

While stakeholders agree on the value and importance of experiential learning, it is up to individual institutions and programs to set goals and create structures and offerings to support them. Community members, partner-agencies, foundations, and industries are all eager to tap into the best that students can offer. As such, employers are prioritizing customized student experiences, recognizing that uniform degrees are no longer sufficient to evaluate potential, and wanting evidence of applicants' worthiness for professional investment. A new experiential learning (NEL) with a "customized student experience" emphasized on "doing." We created a new, dynamic, equitable, and flexible structure that placed students at the center of their learning—empowering them to explore and access the full breadth of relationships, expertise, and engagement through study abroad program. The results of the program provide new information about the functionalities that comprise a uniquely comprehensive model for high-impact experiential learning and the implication.

### **The Development and Implementation of an Online Model for Electrical and Computer Engineering with Virtual Labs**

*Janne Hall, Ph.D., April Tanner, Ph.D., Abdelnasser Eldek, Ph.D. Jackson State University, Jackson, MS, USA*

This research aims to survey the existing online education models in engineering fields; specifically in electrical and computer engineering and develop an online education model with virtual labs for electrical and computer engineering programs. Hands-on experiments coupled with the student's reflection on the constructed experiments demonstrated experiential learning. Virtual instrumentation used in academia affords educational opportunities that are otherwise nonexistent or inaccessible to those desiring a degree in electrical and computer engineering, but with constraints to physical access to the applicable laboratory facility. The virtual lab devices provided students in the online environment, with high quality lab experiences and hands-on skills which are comparable with those provided in the traditional face-to-face environment. Learning through trial and error is an important aspect of testing experiments and is one of the nine objectives for the engineering education laboratory as defined by ABET. As demonstrated in this research, the opportunities for students to utilize virtual device equipment with the simulation software satisfies this objective. The virtual aspect of the equipment allowed the students to complete and satisfy requirements from any internet connected location. The virtual instruments provided a ubiquitous laboratory experience that could become an essential aid for teaching the technical aspects of electrical and computer engineering programs. In addition, data was collected from the student's reflections on virtual, interactive learning. This data will be used towards the progression of this research.

## **Challenges and Celebrations: The UTM Care Team and Creative Engagement**

*Shannon M. Perry and Priscilla Price, The University of Tennessee at Martin*

The University of Tennessee at Martin (UTM) Care Team is on a mission to help students overcome barriers to success by promoting academic, social, and mental well-being. The UTM Care Team works to provide proactive programming to the UTM community with the hopes of impacting students by increasing awareness of the UTM Care Team and care referral programs. In the wake of COVID-19, the UTM Care Team has increased outreach and engagement efforts and found creative ways to connect with students online and in person. Experiential learning opportunities in collaboration with the Tennessee Wildlife Resources Agency, UTM Grounds and Greenhouse, UTM Campus Recreation, the Tennessee Suicide Prevention Network, and others have allowed the team to provide experiences that positively impact student well-being. Join Shannon Perry and Priscilla Price from the UTM Care Team to learn how managing change with COVID-19 increased Care Team creativity and expanded proactive programming geared toward holistic well-being and student success. The duo will share programming ideas and partnerships and discuss the challenges and celebrations of providing fun, engaging activities for students. Participants will gain insights and examples to take back to their institutions. Whether it is catching a catfish, practicing mindfulness in tree pose, or planting a seed, experiential learning and its impact on student well-being and campus culture is irreplaceable.

## **Building Experiential Opportunities for Students Through Corporate Partnerships**

*Amber Moore, The University of Tennessee at Martin*

Training students for veterinary professions requires high impact and hands-on training. Universities do a great job creating experiences that include animal handling, lab procedures and experiments, and medical applications. Training students in a controlled lab environment works well to develop foundational skills that students can build upon. The University of Tennessee at Martin has developed a robust Bachelor of Science degree program in veterinary science and technology that includes a combination of traditional and lab-based courses. In 2021, the university entered a partnership with Weakley Farmer's Co-op for a professor in veterinary science which includes teaching responsibilities and providing ambulatory veterinary services for co-op clientele. This partnership has many benefits that will be presented. First, this allows for unique experiences for UT Martin students to assist with client calls with the veterinarian and gain real world experiences outside of a traditional lab environment. Students are exposed to client interactions, which are very difficult to teach in traditional courses. Secondly, the partnership allows for the professor to share current issues related to the profession. This allows the faculty member to bring the world to the classroom. Veterinary medicine is a demanding profession that is constantly changing, and no two days of the job are the same. It is important for students to understand this early in their academic career as they prepare to apply for veterinary medical school. These types of university industry partnerships

## **Using the Engineering for One Planet (EOP) Framework and Renaissance Foundry Model To Enhance Responsible Business and Economy Elements in Sustainable, Engineering Design**

*Dipendra Wagle<sup>1</sup>, Carlos R. Galindo<sup>1</sup>, Pedro E. Arce<sup>1</sup>, and Andrea Arce-Trigatti<sup>2</sup>*

*1. Tennessee Tech University 2. Tallahassee Community College*

This contribution focuses on the experiential and active learning processes associated with the integration of marketing and business strategies to guide student teams in the development of a marketing strategy for the creation of a prototype of innovative technology in the engineering curricula at the Department of Chemical Engineering of the Tennessee Technological University. Using the Renaissance Foundry Model (i.e., the Foundry) student teams develop prototypes of innovative technology to address societal challenges as required outcomes in the courses reviewed. We provide student data regarding the Responsible Business and Economy elements in the Engineering for One Planet (EOP) Framework collected as a pilot relating to efforts made to magnify the focus on *Sustainability* as a guide to the improvement efforts related to the marketing aspects of this course. The analysis presented provides an overview of the degree to which student prototypes from these courses aligned with current sustainability efforts as well as areas for improvement in this specific topic. As part of this presentation, we overview the current experiential and active learning strategies associated with the marketing and business components of the course, and we introduce how we are systematically incorporating the EOP framework into the design process. The integration of the EOP model as a structured approach to sustainable design was incorporated to help guide student-teams developing such prototypes to address societal challenges as part of their formation as a holistically- trained professionals. Preliminary implications related to holistic engineering education efforts and socially relevant learning are also presented.

## **Cultural Intelligence: Unlocking the Potential of Study-Abroad Experiences**

*Gloria J. Miller, John X. Volker, Michael D. Phillips, and Mark X. James\**

*Austin Peay State University and Columbus University\**

This pilot study investigates the effects of cultural intelligence (CQ) on a group of university students who participated in a study abroad program. The goal is to use this information to expand the use of CQ in future study abroad curricula to enhance students' learning outcomes and overall experience overseas. In this study, 11 university students were assessed for their levels of CQ in four domains: cognitive, metacognitive, motivational, and behavioral. The study's results showed that the metacognitive, motivational, and behavioral CQ domains increased significantly after the students returned from their study abroad trip. The cognitive CQ domain also improved, but the change was not significant. Although this sample size is small, the researchers plan to use this model in future study-abroad trips to increase the sample size. Additionally, they hope to examine the differences in outcomes on other variables, such as the number of days of the stay abroad, the language of the host country, and the student's previous experience abroad. This information can be used to tailor the study abroad

curriculum to suit students' needs better and enhance their overall experience. Overall, the study suggests that cultural intelligence can be a valuable tool in enhancing the study abroad experience for students. The researchers believe that by focusing on developing the four domains of cultural intelligence, students will be better equipped to navigate the cultural differences they encounter while abroad, leading to more positive outcomes and overall experiences. The results of this study are a positive indication of the potential benefits of cultural intelligence in study abroad programs, but further research is needed to fully understand the impact of cultural intelligence on study abroad outcomes.

### **No more boring classes: Experiential-Learning Exercises for the College Classroom**

*Benton Jones, Bryan College*

In this session, participants will be presented with the theory behind the use of Experiential Learning in the college classroom, building on the work of educational theorists like Dewey, Piaget, and Kolb. Participants will experience activities discovered, adapted, and created by the instructor. Participants will be offered several archetypes for Experiential Learning activities, then coached in how they might adapt those common approaches to classroom activities to their own subject matter. By the end of the session, each participant should gain the information, confidence, and skills to find, adapt, or develop their own exercises to make their own courses more engaging, educational, and enjoyable for students. The instructor, Dr. Benton Jones, holds a Mastery of Prior Learning Certificate from the Council For Adult and Experiential Learning, received the "Excellence in Instruction" award from Bryan College for 21-22, has integrated Experiential Learning into courses in Management, Leadership, Business, and Communication, and is soon to publish a workbook of Experiential Learning Exercises developed for the Supply Chain and Operations Management classroom.

### **Empowering Students To Own Experiential-Learning Opportunities**

*Charles Campisi, Baldwin Wallace University*

The presentation will focus on ideas we have implemented over the past two years to allow our students to devise or manage their own experiential opportunities within the Sport Management framework. We have worked F1 Races, PGA Tour events, Super Bowls, etc. and over the past few years have entrusted our students to design elements of the experience outside of our work responsibilities. Additionally, we have had students request the opportunity to bring a group to work/attend a specific event and have entrusted them with generating and managing the opportunity for our program. This creates opportunities for our students to begin experience managing, leading, and directing programs of their choice and allows are faculty to mentor students in ways that are not always possible in the classroom setting.

## **Integrating Work Experiences into the Classroom for Students from All Walks of Life**

*Katia Maxwell, Athens State University*

Athens State University is an upper division institution where we only offer Junior, Senior and some graduate courses. Many of our students are non-traditional, have families, and are looking to finish a degree they started long ago, or are looking to try and make a career change for themselves. At the same time, we are seeing an upper enrollment of more traditional students who have gone to a Junior College and are continuing with their degree path without taking a break. Having a diverse population and serving an underrepresented area not many of our students have the opportunity to give up jobs that they are currently working to be able to partake in internships, and not many can even fathom being able to do a study abroad program. In this 30 minutes' session I will introduce attendees to the five categories of Experiential Learning that our faculty offer in their programs. These are hands-on learning, learning through expeditions, learning through research, community-based learning, and workplace learning. With each I will also provide examples of how activities are incorporated into the curriculum from each of our different colleges, College of Arts and Science, College of Education, and College of Business. I will provide examples of how we encourage students to document their experiences on their resumes, and I will end the presentation by sharing ways in which Athens State University has been able to obtain faculty buy-in to offer Experiential Learning as part of their classroom curriculum.

## **Work-Life Management Challenges for Graduate Students of Color at an HBCU During a Pandemic**

*Sharlene Allen-Milton, Morgan State University*

Nontraditional students of color are often married or single with dependents, dependent on student aid for financial resources, and in need of emotional support and paid work, whether part-time or full-time. Common student work-life issues, such as addressing financial and caretaking responsibilities and taking on student loan debt, are often eclipsed by curriculum and other program requirements, leaving some urban nontraditional students of color feeling invisible and unsupported by their new academic community. As students of color seek upward mobility via higher education, they often experience distance from their communities and must redefine themselves socially to find support. This workshop shares a collaborative inquiry approach to capture the reflections and experiences of three urban graduate students of color matriculating at a Historically Black University during a pandemic.

Objectives for this workshop:

- Increase awareness regarding student work-life challenges of graduate students of color.
- Increase knowledge base regarding the importance of faculty and staff in supporting student work life for graduate students.
- Discuss the importance of experiential learning activities for students from marginalized communities.

### **Science Learning Segments through Digital Video Portfolios: Creating Engaging Online Science Content and Amplifying Student Ownership of Learning in an Elementary Science Methods Course**

*Maria Danielle Garrett, Belmont University*

Science for the Elementary School is an undergraduate science methods course that focuses on the examination, design, and evaluation of experiences for teaching science for elementary school. Time is spent discussing the importance of finding ways to make science content relatable, sparking student interest, and helping students begin to see the relevance it has to their lives and communities. In teaching this course, similar struggles have been encountered in helping some teacher candidates see the relevance of teaching science, when they may have had challenging experiences in their own personal science stories. Modeling examples of hands-on lessons and engaging the candidates in the practice of doing science catalyzes the appeal of this course. Pushing candidates to engage not only in the participation of demos and hands-on lessons, but also in the development of such lessons may enhance candidate self-motivation in this course. The traditional unit plan was recently replaced with a student-created digital video portfolio of a learning segment. Centering this course on some of the principles in problem-based service learning – developing a product that can be used not only in their classroom but can also be shared with the teaching community – amplifies student ownership. With recent increases in the use of virtual platforms in education, this project emphasizes the practical use of technology in the development and implementation of elementary science lessons, preparing candidates to improve their effectiveness in teaching science both in-person and virtually. This presentation details the portfolio project – showcasing examples from candidates’ virtual science learning segments.

### **Exploring Experiential-Learning Opportunities in Professional Development Workshops to Improve Students’ Critical Thinking in Face-to-Face & Online Classrooms**

*Gideon Eduah, College of Education, Tennessee Tech University, Cookeville, Tennessee*

*Andrea Arce-Trigatti, Office of Institutional Effectiveness, Tallahassee Community College*

*Ada Haynes, Department of Sociology and Center for Assessment and Improvement of Learning, Tennessee Tech University, Cookeville, Tennessee*

In this contribution, we feature two case studies regarding faculty professional development critical thinking workshops that integrated experiential learning opportunities that led to the creation of active learning curricula. The following research question guided this study: In what ways did faculty implement lessons learned from attending the Critical thinking Assessment Test (CAT) or a two-year institution’s Critical Thinking workshops? Data collected from the workshops which are used as the analysis for this study include examples of experiential learning in both workshop contexts, faculty Critical thinking Assessment Test Applications (CAT Apps), and examples of faculty institutional assessment assignments. Observational data from the implementation of these workshops is also incorporated. A qualitative analysis that explores patterns and trends from the dataset for this study will be provided. This presentation will offer an overview of the creative, active learning opportunities that were developed from

these workshops by faculty representing different disciplines. Implications from this study include ideas and resources from the Center for Assessment and Improvement of Learning (CAIL) as well as guided critical thinking activities that faculty can implement to improve student learning and assessment.

### **Practice Based Teaching: From Classroom to Practice**

*Ami Mitchell, Boston University*

PBT STEPS is a novel five-step framework to guide faculty, schools, and agencies in implementing a practice-based teaching (PBT) course to achieve maximum success for all stakeholders – students, collaborating agencies, faculty, and school. PBT is pedagogical approach to student learning that allows course instruction while student teams address a real problem to produce implementable deliverables for a public health agency at no cost and within a short timeframe. This framework is implemented through five steps: Securing Partnerships, Technology and Training, Engagement and Implementation, Presenting Deliverables and Sizing Up Results and has been rigorously evaluated for over seven years to examine outcomes to stakeholders through pre- and post-course surveys to examine achievement of learning competencies and satisfaction with deliverables as well as follow-up communication and interviews to examine utility of deliverables in practice. Students learn necessary skills (technical and professional) to be workforce-ready and an understanding of current issues. Agencies receive innovative techniques to solve real problems; access to academic institutions and prospective employees and, high-quality, no-cost deliverables. The school benefits from connecting with the field for research, practice, and ongoing networks. The workshop will highlight Tennessee Department of Health's (TDH) collaboration with a master of public health intervention design and communication course at Boston University School of Public Health (BUSPH). Ami Mitchell (TDH) and Jacey Greece (BUSPH) will discuss topics including tobacco cessation, increasing in-person clinic visits, and human trafficking addressed by the PBT collaboration the past 4 years and will outline the experience, process, and benefits of the collaboration.

### **Making the Most of the Flipped Classroom**

*Benton Jones, Bryan College*

In this presentation, participants will hear from how the “Flipped Classroom” model of education, which has been accelerated by the use of integrated courseware solutions to support residential courses can be leveraged to increase student interest and engagement through the use of Experiential Learning activities. Grounded in the work of educational theorists like Dewey, Piaget, and Kolb, this presentation will show how the Abstract Concepts and Reflective Observation elements of Experiential Learning can be accomplished outside of class - using integrated learning solutions- in order to free up in-person class time for Active Experimentation and Concrete Experiences through in-class activities. This presentation is offered for two reasons: To help instructors better decide how to use the ever-expanding

multitude of options available to them; and to combat the natural urge to rely on lecture which has been shown to be less effective than more interactive styles of teaching. The instructor, Dr. Benton Jones, holds a Mastery of Prior Learning Certificate from the Council For Adult and Experiential Learning, received the “Excellence in Instruction” award from Bryan College for 21–22, has integrated Experiential Learning into courses in Management, Leadership, Business, and Communication, and is soon to publish a workbook of Experiential Learning Exercises developed for the Supply Chain and Operations Management classroom.

### **Engaging Students Outside the Classroom**

*Christian Bushardt, The University of Tennessee at Martin*

The presentation seeks to discuss methods for enhanced teaching effectiveness as well as potentially increase alumni contributions through outside the classroom engagement. The work focuses on faculty attending student sporting events or other outside the classroom activities. The participation of “outsiders”, or people who are in the student(s) reference group but not one of the faculty member’s students, offers a unique opportunity to the faculty member for influence in regard to both student classroom performance but also potential alumni contributions (Wallace, 1966). These “outsiders” often include other students who are friends of the focal student(s), family, and an opposing team. Of special interest, if focusing on maximizing alumni dollars through relationship building, might be certain sports which attract higher than average disposable income family members (Yang, 2014). This provides a venue for faculty engagement and allows outsiders to see a strong faculty commitment, potentially influencing future donations through increased positive attitudes. Biddle’s 1979 definition of role theory and the work of Kristine Gerdy illustrate how teachers can increase their effectiveness by fulfilling the many roles students expect of them. One must not forget that faculty are but actors on a stage, expected to play teacher, coach, cheerleader, judge and even comedian (Gerdy, 2002; McCargar, 1993). Signal theory offers faculty members an avenue through which they can re-enforce these role expectations (Spence, 1973). Appropriate signals for role management to enhance teaching effectiveness can include attire, signage, time commitment and oral communication style

### **Student Agency in the Creative Writing Workshop**

*Kelle Alden and Maari Carter*

The purpose of this workshop will be to showcase some of the ways we engage active student learning within creative writing courses at The University of Tennessee at Martin. Our workshop pedagogy emphasizes critical reading and responding, student engagement, peer collaboration, and conversational feedback. Part of our workshop strategy is to counteract some of the misconceptions students have about the writing process, emphasize the importance of revision, and assist students in making meaningful choices about their work. Part I of the workshop will consist of each presenter outlining their respective approaches to creative workshop pedagogy. In Part II, Dr. Maari Carter will lead a generative exercise. In Part III, Dr. Kelle Alden will model



and facilitate a peer workshop. Participants should come away with actionable practices to apply in their own classrooms and/or writing lives.

### **Reigniting Enthusiasm for Service/Experiential Learning**

*Terry A. Silver and Harriette Spiegel, The University of Tennessee at Martin*

A proliferation of literature now affirms service/experiential learning principles and practice in education. These principles and practices fall within a theoretical framework that offers similar learning implications and practical applications for students irrespective of their location in the education pipeline. Because of these trends in education, University Professors should develop service/experiential learning opportunities for students. Both learning strategies actively engage students in a learning environment where they may experiment, test, and apply their problem solving and critical thinking skills to resolve a problem or need identified by a collaborative partner. To differentiate from experiential learning experiences (e.g., internships, volunteerism, field experiences), “‘service-learning’ occurs when there is a balance between learning goals and service outcomes” producing reciprocal benefits (Furco, 1996). Within this framework, both partners pursue independent missions; yet, collectively, they seek resolution to a common situation. This presentation will explore the theoretical framework of both instructional strategies while showcasing two service-learning projects and two experiential projects. Responding to the negative effects that the COVID 19 pandemic inflicted on the use of the strategies, included will be an overview of the how COVID 19 impacted service/experiential learning and creative attempts to keep students engaged while learning virtually.

### **On Location: Career Development at a Tennessee Foundry**

*Lorie Jones and Cochran Pruett, University of Tennessee Southern*

Martin Methodist College joined the University of Tennessee System in 2021 and became known as the University of Tennessee Southern (UTS). The university is located in Giles County, TN – a rural area of southern middle Tennessee – along the Alabama state line. Shortly after the collegiate merger, a local industrial facility headquartered in Belgium reached out to the university for assistance with soft skills training and career development for its employees. Two faculty members - Dr. Lorie Jones and Lieutenant Colonel Cochran Pruett – joined the university around the time of the merger after spending decades in industry (Jones) and military operations (Pruett). The team of two collaborated to develop a one-year curriculum subdivided into six modules covering the following topics: critical problem solving, business communication, conflict resolution, principles of management, budgeting and ethics, and principles of industrial safety. The content areas were suggested through a layered audit of training needs provided by the local industry. In the conference presentation, two primary learning objectives will be discussed. First, we will discuss the strategies used to reach a very diverse group of local employees who are part of a much larger global organization in their professional environment. Then, we will discuss the potential for these nontraditional students to convert their earned CEUs to college credit.

## **Experiential Learning in the Online Classroom: Benefits, Challenges, and Strategies**

*Tabitha Cude & Claire Dempsey, The University of Tennessee at Martin*

Experiential learning allows students to apply what they are learning to the real world through action and then reflection of the experience, including personal thoughts and emotions. In online programs and courses, students are presented information through lecture and through written material, but these students often do not have in-person interaction with their peers in the classroom setting. Experiential learning is critical to the success of online learners and can happen through online and in-person experiences. Benefits include bringing diverse (culturally and geographically) populations together, often eliminating economic barriers, and making the course more engaging (University of South Carolina Center for Integrative and Experiential Learning, n.d.). However, there are also many challenges, including motivation, isolation, and availability of appropriate experiences. Experiential learning in online courses can occur in the online setting, but the experience can also be an on-site experience, placing responsibility on the student to seek these experiences to help them learn and grow outside of the online classroom. There are many growth opportunities for online learners allowing them to participate in experiential learning. This presentation hopes to discuss experiential learning in online classroom, highlight potential benefits and challenges of experiential learning in the online classroom, and provide strategies for creating and implementing effective experiential learning experiences in the online classroom.

## **A Career-Focused Approach to an Introduction to Forensic Science Class**

*Amanda Burkhart, The University of Tennessee at Martin*

At The University of Tennessee at Martin, a course is offered called “Introduction to Forensic Science.” The course is taken by both science and non-science majors, the most popular being chemistry, biology, and criminal justice. Topics ranging from crime scene investigation, fingerprinting, controlled substance analysis, and DNA are covered. Because these topics extend beyond the normal scope of one discipline, it is impossible for a single instructor to be an expert on all topics. Additionally, the wide variety of student majors leads to a diverse pool of career goals. For these reasons, one objective of the course is to expose the students to practitioners working in different fields of forensic science. Guest speakers from both the West Tennessee Forensic Science Center as well as the Tennessee Bureau of Investigation were invited for both in-person and virtual lectures. The students also travelled to the West Tennessee Forensic Science Center to take a tour of the facility and speak with medical examiners and death investigators. Most students cited this experience as their favorite aspect of the course. In addition to exposure to the field through guest speakers and tours, students in this course are asked to participate in a mock trial as an expert witness, defending actual results they have obtained in the laboratory portion of the class. This hands-on experience provides the students with practice speaking on scientific topics and exposes them to the challenge of being cross-examined by attorneys trying to invalidate their testimony.

## **Soiling Your Underwear for Science**

*Bethany Wolters, The University of Tennessee at Martin*

At the beginning of the fall 2023 semester, students enrolled in Soil Microbiology at the The University of Tennessee at Martin buried underwear in four locations across campus, not as a prank but for science. The underwear was used for a semester-long experiment examining the differences in soil microbial community and decomposition rates in different soil types and environments. This experiment was inspired by the Soil Your Undies soil health demonstration, developed by NRCS to show farmers the health of their soils. The NRCS's demonstration was expanded into an experiment for a university-level course by adding using two different types of underwear (fabrics that will completely or partially decompose) and four locations to represent different environmental conditions. After 60 days, the underwear was dug up, and students collected data on soil and environmental conditions. Students used the data to write a laboratory report, following the structure and style of a scientific journal article. There were multiple positive outcomes from this project. First, students were enthusiastic about this experiment because of the novelty and fun of doing research on underwear. Second, the experiment results illustrated real-life concepts from soil microbiology lectures and assignments. Lastly, the experiment was a good way to teach students about following the scientific method, from collecting and analyzing qualitative and quantitative data, and technical writing styles. Soil Your Undies project could be modified for grade levels and subject areas, from earth sciences, ecology, microbiology, and even fashion design, by focusing on relevant aspects of the project.

## ***Engaging Learners through Outdoor Education: Experiential Learning Beyond the Walls***

*Kim Bates, Silverdale Baptist Academy, Chattanooga TN*

Students today spend less time in the natural world than ever before. Despite studies proving that outdoor experiences support emotional, behavioral, and intellectual development, outdoor education is underutilized as a strategy to engage learners. At the most basic level, just taking a class outside to read or complete assignments can have a positive impact on students' health. Time outdoors is shown to reduce stress, anxiety, attention deficit symptoms, and depression. Conversely, simply spending time outside can increase creativity, confidence, resilience, independence, and even eyesight. For the youngest students, interacting with the natural world inspires wonder, curiosity, joy, and awe, as they explore and discover their world. Playing in mud, grasping twigs, observing insects, sketching in nature journals, all promote development by improving motor skills and fostering authentic inquiry into the world. For older students, learning becomes alive and relevant when connected to the natural world. Students care about environmental issues such as conservation and stewardship when provided opportunities to see where their food comes from or how water is managed. Every academic subject can be enhanced with outdoor learning. For example, math becomes real and tangible when students gather rocks, sticks, and leaves, then use sidewalk chalk to graph percentages, fractions, and decimals for the items. Observation skills, expression, and creativity are

heightened when students study a tree, describe it, create metaphors, and shape thoughts into poems.

This presentation will provide practical, hands-on strategies for teachers to integrate outdoor educational experiences into curriculum to maximize student learning and engagement.

### **Student Engagement & Career Preparation with Virtual Awards**

*Mary McGinnis, College of Coastal Georgia*

To increase student engagement and to internalize the transformation experienced through coursework, we are implementing the Endeavor program, which is a framework to help students clearly understand the skills they gain through their coursework. The goal is for students to be able to articulate their learning and present potential employers with artifacts from their college experience to serve as evidence of skills and growth. This poster presents data on the virtual Endeavor Tags awarded through the course management system and student response to the tags. Piloted in Fall 2022, tags were awarded to students for completing specific tasks at specific levels—for example, one class of students received the “Written, Oral, & Digital Communication” tag when they earned 80% or higher on a major assignment. Participants were asked to take an IRB-Approved survey to collect feedback about the program and to gauge the effectiveness of the tags in helping students recognize the skills gained through their coursework. The goal is that students will take this understanding and explain the value of the competencies gained through their college experience on their resumés and in job interviews. Preliminary data has been positive, with 71% of respondents (n=71) agreeing that the Endeavor Tags help them understand the skills gained in their course and 69% agreeing that the Tags will make it easier to explain their skills to potential employers. Respondents were excited about the tags, finding them meaningful and feeling like they were a reward for hard work.

### **Learning Through Leadership: Planning a National Convention**

*Alissa Carter, Laura Myhan, Diana Watson, Ross Pruitt and Sandy Mehlhorn, The University of Tennessee at Martin*

An integral component of leadership is to rise up in order to help those around you accomplish common goals. In Spring 2023, The University of Tennessee at Martin will be hosting the annual National Convention of the Agricultural Honor Society of Delta Tau Alpha. This will be an opportunity to develop leadership, communication, and organizational skills for students that are not taught in traditional classrooms. Students of the planning committee and members at large, will be polled over the challenges of planning and implementing a national convention. The survey will include questions concerning greatest challenges, time management, newly acquired skills, and lessons learned. The anticipated results are increased problem solving, budgeting, communication, delegation, team building, and networking skills. The net goal of hosting the DTA National Convention is to increase leadership skills in students that participated in the planning and implementation of the convention’s activities.

**Experiencing Anatomy at a Deeper Level: Reconstruction of a Goat**

*Lilly Mahaney\*, Grant Funderburk, Montana Wright, Diana Watson, Jack Grubaugh, Ray Witmer*

Animal anatomy has historically been a challenging subject for undergraduates to visualize and comprehend. A project has been undertaken to reconstruct a fully articulated skeleton of a caprine for use in future animal science and veterinary science courses at The University of Tennessee at Martin. In order to execute this project, three separate departments: biology, engineering and animal science, collaborated. The project began by debulking, disarticulating, cleaning and identifying the skeletal components of the goat. Various materials were tested for quality, durability and strength for use in rearticulating the skeletal structure. This undertaking has enabled students to gain experiences outside of the classroom and to develop technical and interpersonal skills. The hands-on experiences of realigning and recreating the natural conformation of a goat has provided the students with a deeper appreciation and understanding of anatomy. This opportunity has allowed students to develop many soft skills such as communication, problem solving, adaptability, dependability, and team building. The benefits of this project will be experienced by future anatomy students, allowing them a unique and unobstructed view of a full goat skeleton.

**Experiences that Engage and Enable Students to Pursue Post Graduate Studies**

*Emily Nave\*, Diana Watson and James Smart*

As students continue their education, it has become more competitive to be accepted and considered for assistantships. In addition to the importance of coursework and extracurricular activities, undergraduate research experience has become vital for students to have. In Fall of 2022, a project was undertaken to identify a genetic mutation in sheep to identify the frequency of Spider-lamb Syndrome in the state of Tennessee. Throughout this experience, the student worked jointly with the Animal Science and Biology Departments. Experience with animal-handling skills including, venipuncture, and collection techniques, as well as laboratory techniques including Polymerase Chain Reaction (PCR), operation of thermocycler, and formulation of reagents and buffers were achieved during research. These experiences allowed for the development of a competitive skillset and an increase in knowledge outside of the traditional classroom. Other skills gained during this experience include soft skills like improved communication, time-management, critical thinking, and the ability to work independently.

**Crossing Disciplines for Creative Learning: Providing Educational Training to the Public**

*Sandy Mehlhorn, Philip Smartt and Joey Mehlhorn, The University of Tennessee at Martin*

Innovative teaching on college campuses is leading to high impact learning activities that help bring course content to life and make it relevant to college students. As faculty continue to develop better classroom and lab experiences, they can learn from how nontraditional student education occurs. This project will look at various aspects of training that occurs outside of the

traditional university setting to nontraditional audiences and how these types of activities can be modified for classroom use. Training can occur in many ways, but we will focus on two unique groups: minors and industry/adult education. For department teaching agriculture and related sciences, groups such as FFA and 4-H are commonly seeking training from faculty. However, serving audiences beyond traditional agriculture groups is growing. This presentation will discuss several examples of innovative and effective programs. Planning is key to success to any teaching endeavor, but this is amplified when dealing with the public. Teaching in a nontraditional setting (off campus workshop; field trip; camp or club experience) requires additional planning since groups can be less familiar with content and removed from learning environment in the case of adult professionals. The expectation of working professional typically exceeds that of a traditional captive college student, so creating an engaging and meaningful experience is essential. Both positive and negative experiences will be shared from past experiences that will hopefully lead to discussion and tools for future high impact learning activities.

### **Bringing Clinical to the Classroom: Code Management for Nursing Students**

*Cassie Burks, The University of Tennessee at Martin*

Code management is an essential skill in the nursing profession. Nurses must recognize and treat deadly dysrhythmias in attempts to save lives. All nurses must have basic life support education with many hospitals also requiring advanced cardiac life support (ACLS) training. At UTM, the nursing curriculum includes critical care concepts in the NURS 412 Adult Health IV course. All UTM nursing students are required to take this class before graduating. Not all nursing programs require a critical care course. The course is a mixture of didactic with a clinical component. The purpose of this poster is to explain how faculty use active learning to bring clinical to the classroom. Faculty provide a knowledge basis to nursing students through an initial lecture and power point about code management. Presentations are updated regularly to reflect American Heart Association guidelines. Power points include cardiac rhythm strips, medication information, and nursing care for each life-threatening condition. Active learning occurs after the lecture through simulation in the classroom. Students are divided into code teams resembling hospital practice. Each team must recognize and treat the patient appropriately based on dysrhythmia and patient assessment data. These simulations require adequate cardio-pulmonary resuscitation, medication administration, communication, teamwork, and psychosocial family care. Simulations utilize either a mannequin or students who play patient and family roles. Afterwards, the instructor leads debriefing. Students in the audience provide the team with feedback, and the code team is also encouraged to discuss strengths and weaknesses.

### **Creating Meaningful Leadership Experiences for College Students**

*Joey Mehlhorn, Gina McClure, Robbie Montgomery, Carrie Humphreys, Jerald Ogg and Steve Vantrease, The University of Tennessee at Martin*

A student leadership training program was created at The University of Tennessee at Martin to help improve student leadership potential. The mission of the program is to “discover, maximize, and empower the potential of passionate and motivated students by transforming them into extraordinarily capable innovators who are fully prepared and uniquely inspired to influence and impact society”. This cohort program utilizes a multiyear process of leadership training that progresses to include more and more leadership opportunities as the student progresses through the program. Students are selected during their first year of school and remain in the program till they graduate. The program expands student ability and understanding through a combination of leadership experiences, domestic and international travel opportunities. This presentation will discuss aspects of the program and includes specific discussions of the program development including successes and opportunities for improvement.

### **Breeding Unicorns: A Semester-long Homework Project for Animal Genetics Students**

*Todd A. Winters, College of Agriculture and Applied Sciences, The University of Tennessee at Martin*

Animal Genetics is historically considered one of the more difficult courses for students in the Animal and Veterinary Science curricula. The mathematical and statistical concepts of genetics are key reason for these difficulties. To help students understand the mathematical concepts of animal breeding and genetics in a more enjoyable manner, a series of five interconnected homework assignments emphasizing traits in the mythical animal, the unicorn, were developed. Concepts covered included: dominant & recessive traits, effects of outbreeding and inbreeding on gene and genotypic frequencies in a population, test matings, using breeding value estimations, population statistical calculations and estimations, and hybrid vigor estimations. Because math is emphasized in the homework assignment, exams and quizzes emphasize non-mathematical concepts of genetics rather than mathematical ones. One class of 18 were asked to reflect on their experience. Results were: 94% gave a positive answer (strongly agree/agree) that the homework assignments helped them understand mathematical concepts of animal breeding and genetics (ABG); 72% positively answered that the assignments made learning ABG more enjoyable; and 100% liked the fact that mathematical genetic concepts were emphasized on unicorn homework assignments rather than quizzes and exams. Only 1 student preferred to have more mathematical genetics problems on the quizzes and exams. In summary, a semester-long interconnected homework assignment can make Animal Genetics a more enjoyable class, while learning the important mathematical concepts of breeding and genetics.

### **Nudging Toward Success: LinkedIn in the Classroom**

*Anthony Delmond, The University of Tennessee at Martin*

Undergraduate students in agricultural programs often balk at the use of digital platforms for professional networking. Whether this tendency stems from longstanding issues of broadband access for rural communities or a tradition of face-to-face communication in agriculture is unclear, but the market has increasingly embraced social media in marketing and recruiting efforts. Large agribusinesses like Bayer, Tyson, and John Deere have embraced social media and expect recent graduates to be versed in the media of their generation. This places many agriculture students—particularly those from rural backgrounds—at a disadvantage when entering the job market. This study focuses primarily on students' initial foray into professional networking through social media. Students in a lower-division agricultural business course were required to develop a personal LinkedIn profile meeting specific requirements outlined in a detailed rubric. Each semester, the rubric was modified to provide different guidelines with respect to the number of required connections. Specifically, the assignment required students to connect with other LinkedIn users outside of the university network (i.e., not professors, family, friends, or alumni). Different treatments varied the number of required external connections. This external review put students' "skin in the game," since their public profiles would be scrutinized by real-world businesspeople and potential employers. The expected outcome was that the quality of students' LinkedIn profiles would improve as more external validation was required. Initially, that logic holds; however, the results indicate that there exists a threshold of required connections beyond which students' LinkedIn profile quality declined.

### **Creatively Engaging Students**

*Simpfronia Taylor and Jason Holloway, The University of Tennessee at Martin*

The University of Tennessee at Martin (UT Martin) recognized the need to promote education in rural areas. To promote advanced knowledge for professional writing and research, specifically in Psychology, the Ripley Center established the Project Fly High grant sponsored by the American Psychological Foundation (APF). This program was designed to improve the quality of education in psychology and research through a comprehensive set of lessons and experiences for high school students; specifically dual enrollment students. This presentation will provide an overview of steps local schools and agencies can take to provide Career and Stem lessons for students utilizing Authentic Assessment. Critics of traditional testing, have some research evidence to indicate tests do not accurately measure student skills. Authentic Assessment prepares students to do more than memorize information; but rather it allows students to practice higher order thinking skills. Most dual enrollment students reported the most common barriers to post-secondary education relate to financial concerns (paying for school) and personal relationships. The PI reviewed initial data from the One-day activities and noticed that paying for school was a major concern for students. While reviewing data the PI also noticed that students were concerned that they would not know what jobs were available that were related to their career decision. The data also indicated the lack of recognition, by



students, regarding STEM related lessons or instruction within their local district. Data also indicated that most students say they plan to seek a 4-year degree after high school.

### **Thinking Outside the Box (Classroom)**

*Derick Ezell, The University of Tennessee at Martin*

The whole premise of Marketing is to recognize the needs of a potential customer, then create and deliver a product that will best fill those needs. Most view the student-professor relationship as the professor (university) being the company who delivers the product (education) to the customer (student). However, his perspective inherently diminishes the student experience as compared to the alternative of the student being the product. This makes the professor (university) the company that refines the product (student) to best suit the needs of its customers, which in this case would be future employers. Teaching from this perspective will help you to think outside of the four walls of the classroom and look for any opportunity to give the students a hands-on experience that will increase their appeal to companies wanting to hire recent graduates. Using this technique has led to forming outstanding relationships with local businesses, students researching/considering industries in which they had no prior interest in working (or even knowledge that industry existed), and ultimately job offers for students . . . the ultimate goal of education.

### **Buongiorno Future Agriculture Education Teachers!: A Qualitative Analysis of Lived Experiences of Pre-Service Agriculture Education Students during a Semester-Long Italian Travel Study.**

*Ethan Forster, Nathan Herd, Will Bird\*, Todd Winters, and Joey Mehlhorn, The University of Tennessee at Martin, Martin, TN.*

Agriculture education teachers prepared for service in the public schools throughout our state and country must have expertise in a plethora of agriculture disciplines including, but not limited to animal science, agriculture engineering, agriculture business, crop and soil science, horticulture, leadership, veterinary science, food science, and any other courses recognized by the Tennessee Department of Education. To achieve a more global perspective on international agriculture, three UT-Martin students and one Tennessee State University student, all of which are majoring in agriculture education, participated in a semester long, immersive travel study to Siena Italy. During the twelve weeks of the experience, these students visited farms, agriculture production facilities, and sites of agriculture history important to Italian agriculture. Upon returning from the travel study, these students were invited to participate in an interview about their experience. Questions predominantly focused on assessing what students learned, if they viewed the experience as potentially impactful to their future career as an agriculture education teacher, and which experience(s) were most impactful. Regarding what students learned, it was reported that students enjoyed the opportunity to compare Italian agriculture production practices to American agriculture practices. Regarding how the experience would impact their careers as educators, students noted that being a “stranger in a foreign land”

helped them fully understand how new students may feel and why they might find some learning activities difficult to understand. Students indicated that the independence and “planning their days” provided a very impactful experience in preparation for the adult world.