

Rachel Hendrix

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EDUCATION

Mississippi State University Ph.D. Agricultural Sciences	Starkville, MS Aug. 2019
Tennessee State University M.S. Agricultural Sciences	Nashville, TN Aug. 2012
Middle Tennessee State University B.S. Plant and Soil Science Agricultural Education minor	Murfreesboro, TN May 2010

Dissertation: Agricultural Educators' Personal Characteristics and Self-Efficacy Beliefs Regarding STEM Education

Thesis: Student Achievement Impact of Geocaching Integration in an Agriscience Lesson Plan

PROFESSIONAL EXPERIENCE

West Virginia University Assistant Professor of Agricultural and Extension Education	Morgantown, WV Aug. 2019-Present
<ul style="list-style-type: none">• Taught AGEE 421, AGEE 426, AGEE 438, and AGEE 488/489• Supervised student teachers• Supervised graduate students in academics and research• Performed research related to STEM in agriculture and student workforce readiness	
Mississippi State University Graduate Teaching Assistant/Research Assistant	Starkville, MS Jun. 2017-Jun. 2019
<ul style="list-style-type: none">• Taught AELC 3333, lab instructor for AELC/HDFS 4424• Assisted in supervising student teachers• Performed research related to STEM in agriculture and student workforce readiness	
Sumner County Schools Agriculture Teacher	Gallatin, TN Aug. 2012-May 2015
<ul style="list-style-type: none">• Taught agriscience, leadership, horse science, veterinary science, landscaping, floral design, and greenhouse management• Managed 3 greenhouses, a workshop, and a small animal care facility• Advised the Hendersonville FFA Chapter	
Tennessee State University Graduate Teaching Assistant/Research Assistant	Nashville, TN Aug. 2010-May 2012
<ul style="list-style-type: none">• Performed research related to STEM in agriculture and student leadership and critical thinking• Assisted instructor of record with course-related tasks	
Middle Tennessee State University <i>Student Teacher Internship</i>	Murfreesboro, TN Jan. 2010-May 2010

- Taught agriscience, floral design, greenhouse management, small animal care, and veterinary science

Middle Tennessee State University

Agriculture Department Assistant

Murfreesboro, TN

Aug. 2009-Dec. 2009

- Assisted instructors of record with course-related tasks
- Performed research into haylage production techniques
- Assisted at the MTSU dairy and greenhouses when needed

CERTIFICATION AND TRAINING

- Association of College and University Educators (ACUE) Effective Teaching Practices Certified
- Certified teacher of Agriculture and Agricultural Science in Tennessee
- Green Zone Veteran Support Training
- Safe Zone LGBTQ Ally Training
- Curriculum for Agricultural Science Education (CASE) certified

AWARDS and HONORS

- National Association of Colleges and Teachers of Agriculture (NACTA) Graduate Teaching Assistant Award, 2019
- Mississippi State Zacharias Graduate Teaching Assistant Award nominee, 2019
- Mississippi State School of Human Sciences Graduate Teaching Assistant of the Year, 2019
- Tennessee Association of Agriculture Educators Ideas Unlimited winner, 2013

PROFESSIONAL MEMBERSHIPS

- American Association of Agricultural Educators (AAAE)
- American Association of Agricultural Educators (AAAE) North Central Region
- North American Colleges and Teachers of Agriculture (NACTA)
- National FFA Alumni and Supporters
- Gamma Sigma Delta Honor Society
- Phi Kappa Phi Honor Society

SIGNIFICANCE AND IMPACT OF TEACHING

West Virginia University

AGEE 421 – Agricultural and Natural Resources Communications

Instructor of Record: Fall 2019-Present

- 25-30 students enrolled each semester
- Develop and deliver lectures and activities involving informative writing, oral presentation, visual design, and professional communication
- Manage a complex calendar of presentations, guest speakers, interviews, activities, and events.

AGEE 426 – Directing FFA and SAE Programs

Instructor of Record: Spring 2020-Present

- 10-15 students enrolled each semester
- Develop and deliver lectures and activities involving FFA chapter management, member recruitment and retention, volunteer leadership and development, SAE growth and guidance, and student leadership development.
- Oversee a mock SAE program involving hands-on learning and online recordkeeping.

AGEE 438 – Agricultural Education Curriculum Development

Instructor of Record: Fall 2020-Present

- 10-15 students enrolled each semester
- Develop and deliver lectures and activities involving the development of agricultural education-related curriculum that is tailored to the specific needs of state, community, school, and student needs. Covers curriculum variance, federal/state/local standards, Understanding by Design (UbD) curriculum development, and assessment development.
- Work with future student teaching interns to develop materials useful for their student teaching semester and beyond.
- Collaborate with other agricultural education colleagues to develop and examine unit plans from three different perspectives: cohesion/quality, relationship to daily activities, and relationship to learning in a laboratory setting.

AGEE 488 – Professional Agricultural Internship

Instructor of Record: Spring 2020-Present

- 3-10 students enrolled each semester
- Prepare student teachers and extension interns for their internship experience.
- Observe and assess student teachers during their student teaching experience.
- Assess student teacher performance following the internship experience.

AGEE 526 – Directing FFA and SAE Programs, Graduate Level

Instructor of Record: Spring 2022

- 10-15 students enrolled each semester
- Develop and deliver lectures and activities involving FFA chapter management, member recruitment and retention, volunteer leadership and development, SAE growth and guidance, and student leadership development.
- Oversee a mock SAE program involving hands-on learning and online recordkeeping.

Mississippi State University

AELC 3333 – Professional Presentations in Agriculture and Life Sciences

Instructor of Record: Spring 2018, Fall 2018, Spring 2019

Teaching Assistant: Fall 2017

- 20-30 students enrolled each semester
- Developed and deliver lectures and activities involving public speaking and presentations skills, sales techniques, career interview opportunities, networking, and professionalism.
- Managed a complex calendar of presentations, guest speakers, interviews, activities and events.
- Arranged a professional luncheon to help students practice etiquette and networking skills.

AELC/HDFS 4424 – Teaching Methods in Agricultural and Human Sciences

Lab Instructor: Fall 2017, Spring 2018, Fall 2018, Spring 2019

- 9-10 students enrolled in a lab section each semester.
- Facilitated and assessed a series of weekly microteachings in which students practiced lecture content such as inquiry learning, differentiation, hands-on activities, and teaching across different domains.
- Provided instruction and feedback regarding lesson plan development and microteaching performance.

AELC 4886/4896 – Student Teaching

Teaching Assistant: Fall 2017, Spring 2018, Fall 2018, Spring 2019

- 5-10 students enrolled each semester.
- Prepared student teachers for their internship experience.
- Observed and assessed student teachers during their student teaching experience.
- Assessed student teacher performance following the internship experience.

Tennessee State University

AGSC 3050 – Foundations of Agricultural & Extension Education

Teaching Assistant: Spring 2012

- 10-20 students enrolled each semester.
- Assessed student performance on assignments.
- Instructed class when the instructor of record was unavailable.

Middle Tennessee State University

ANSC 3810 - Milk Processing and Marketing

Teaching Assistant: Fall 2009

- 10-20 students enrolled each semester.
- Developed class lecture presentations for the instructor of record.

PLSO 3330 - Field Crop Production

Teaching Assistant: Fall 2009

- 10-20 students enrolled each semester.
- Developed class lecture presentations for the instructor of record.

ADVISING

West Virginia University

Graduate Advisor: Fall 2019-Present

- Advising 7 graduate students regarding their course and credit needs.
- Advising 2 graduate students through the academic research and writing process.
- Chaired 1 graduate thesis committee
- Served as a member of 1 Ph.D. committee and 1 graduate thesis committee

Undergraduate Advisor: Summer 2020-Present

- Advised 10 undergraduate students regarding their course and credit needs.

Mississippi State University

Research Advisor: Fall 2018-Spring 2019

- Advised an undergraduate researcher exploring MSU alumni views regarding workforce preparedness.

SERVICE AND OUTREACH

West Virginia University Constructed Objects of Agricultural Learning (COAL)

- Co-program Coordinator: 2021

American Association of Agricultural Educators North Central Region

Professional Development Committee Member

- 2020-2023

West Virginia FFA Association

Agricultural Professionals Society and Mountaineer Collegiate FFA

- Advisor: 2019-Present

Agriscience Career Development Event

- Judge 2021-Present

Floriculture Career Development Event

- Judge: 2019-Present

Forestry Career Development Event

- Judge: 2021

Meat Evaluation Career Development Event

- Judge: 2019-Present

Nursery/Landscape Career Development Event

- Judge and Facilitator: 2021-Present

Prepared Public Speaking

- Manuscript Judge and Finals Judge: 2022

Curriculum for Agricultural Science Education (CASE) Institutes Hosted

Agricultural Business and Finance (ABF) Institute

- 2022

Agriculture, Food, and Natural Resources (AFNR) Institute

- 2021

Principles of Agricultural Science, Plant (APS) Institute

- 2021

Agricultural Research and Development (ARD) Institute

- 2021

Mississippi FFA Association

Veterinary Science Career Development Event

- Superintendent: 2019
- Judge: 2017-2019

Employment Skills Leadership Development Event

- Judge: 2017-2019

Parliamentary Procedure Leadership Development Event

- Judge: 2018-2019

Mississippi State Collegiate FFA

- Co-Advisor: 2017-2019

Mississippi 4-H

Career Pursuit Event

- Judge: 2017-2019

Cooperative Development Conference

- Workshop Presenter: 2018

National FFA Organization

Employment Skills Leadership Development Event

- Judge: 2015-Present

Tennessee FFA Alumni and Supporters

Hendersonville (TN) FFA Alumni and Supporters

- Charter member
- Scholarship Committee member

Tennessee FFA Association

Nursery/Landscape Career Development Event

- State CDE Committee: 2012
- Superintendent: 2011-2012
- Judge: 2013

Floriculture Career Development Event

- Superintendent: 2011-2012

Tennessee State University Collegiate FFA

- Student Advisor: 2010-2012
- Tiger Tune Up Livestock Judging Coaches Clinic

SIGNIFICANCE AND IMPACT OF RESEARCH

West Virginia University

- Examined how West Virginia agricultural educators are integrating STEM into the classroom and how confident they feel in their ability to do so.
- Researched how West Virginia agricultural educators are teaching meat science courses, and the facilities and tools that they use to do so successfully.

Mississippi State University

- Examined how Mississippi and Tennessee agricultural educators are integrating STEM into the classroom and how confident they feel in their ability to do so.
- Conducted mixed-methods study to compare agriculture students' perceptions of workforce readiness against employers' perceptions to better prepare students for their future careers.
- Conducted a mixed-methods study to identify recent graduates' perceptions of their personal levels of workforce readiness to better prepare future students for their careers.
- Performed a qualitative analysis of retired agricultural educators' and extension agents' views of the current state of agricultural education in the United States.

Tennessee State University

- Conducted a mixed methods study to identify the effects of GPS integration into agricultural classrooms
- Explored Georgia agricultural educators' critical thinking skills

Middle Tennessee State University

- Assisted with research into haylage production and storage practices
- Collected haylage samples for analysis following strict scientific guidelines

GRANT APPLICATIONS

2022 National Association of Agricultural Educators (NAAE) State Teach Ag Results (STAR) Grant

- Total funds: \$8,000

2019 Travel Assistance Grant for Graduate Students.

- Total Funds \$400

2018 Morrison, C. C., Hendrix, R., CALS/MAFES Undergraduate Research Scholars Program.

- Total Funds \$3,000

REFEREED JOURNAL ARTICLES

Hendrix, R. E., McCubbins, O. P., and Ricketts, J. C. (2022) GPS and Geocaching integration in agriscience: The impact on critical thinking. *Journal of Southern Agricultural Education Research*, 72(1).

Hendrix, R. E. & Morrison, C. C. (2020). Student emotional responses to different communication situations. *Journal of Applied Communications*, 104(3), doi: <https://doi.org/10.4148/1051-0834.2322>

Hendrix, R. E. & Morrison, C. C. (2018). Student perceptions of workforce readiness in agriculture. *Journal of Agricultural Education*, 59(3), 213-228, doi: 10.5032/jae.2018.03213

REFEREED CONFERENCE PROCEEDINGS

Veach, T.* & Hendrix, R. E. (2021). West Virginia Agricultural Educators' Usage of Internet-Based Instructional Technology. Paper presented at the meeting of the American Association for Agricultural Education, Columbus, Ohio.

Distinguished Research Manuscript

*Graduate student

Hendrix, R. E., Veach T.*, & McKibben, J. (2020). I thought this was shop class. Why are we reading a book? Using a book club to increase mechanics teaching efficacy. Paper presented at the meeting of the North American Colleges and Teachers of Agriculture Conference, online.

*Graduate student

Hendrix, R. E., Carr, K.*, & Swortzel, K. A. (2020). Current methods used by agricultural educators to Integrate STEM content into the classroom. Paper presented at the meeting of the North American Colleges and Teachers of Agriculture Conference, online.

*Graduate student

Hendrix, R. E., Swortzel, K. A., Greenhaw, L. L., Jagger, C. A., & Walker, R. A. (2020). Agricultural educators' levels of personal teaching efficacy towards STEM education. Paper presented at the meeting of the American Association of Agricultural Educators, online. <http://aaaonline.org/event-3809165>

Hendrix, R. E. & Morrison, C. C. (2018). Seeds for the future: Workforce readiness skills for tomorrow's agricultural workforce. Paper presented at the meeting of the North American Colleges and Teachers of Agriculture, Ames, Iowa.

Hendrix, R. E. & Morrison, C. C. (2018). Student perceptions of workforce readiness in agriculture. Paper presented at the meeting of the American Association for Agricultural Education, Charleston, South Carolina.

Parks, C., Ricketts, J. C., & **Hendrix, R. E.** (2012). Critical thinking dispositions of Georgia agriculture educators. Paper presented at the meeting of the Southern Association of Agriculture Scientists, Birmingham, Alabama.

REFEREED POSTER PRESENTATIONS

Murphree, M.*, **Hendrix, R. E.**, and Morrison, C. C. (2021). Undergraduate agricultural students' perceptions Of Flip Grid. Poster presented at the meeting of the 2021 North American Colleges and Teachers of Agriculture, online.

* Graduate student

Giorgi, A. J., **Hendrix, R. E.**, and Byrd, A. P. (2021). Increasing programmatic coherency through a multi-course unit plan assignment. Poster presented at the meeting of the 2021 North American Colleges and Teachers of Agriculture, online.

Murphree, M.*, **Hendrix, R. E.**, & Morrison, C. C. (2021). Undergraduate agricultural students' perceptions of using Flip Grid for online assignments including peer evaluation and self-reflection. Poster presented at the 2021 Mississippi State University Graduate Research Symposium, Starkville, Mississippi.

* Graduate student

Chism, M.*, **Hendrix, R. E.**, & Morrison, C. C. (2019). Alumni perceptions of workforce readiness in agriculture. Poster presented at the 2019 Mississippi State University Undergraduate Research Symposium, Starkville, Mississippi.

* Graduate student

Hendrix, R. E. & Morrison, C. C. (2019). How comfortable are students in communications situations? Poster presented at the meeting of the Southern Association of Agricultural Scientists, Birmingham, Alabama.

Grant, C., **Hendrix, R. E.**, Swortzel, K. A., & Jagger, C. (2018) Lessons learned from the previous generation of agricultural and extension educators. Poster presented at the meeting of the American Association of Agricultural Educators, Charleston, South Carolina.

Distinguished Research Poster

Hendrix, R. E. & Morrison, C. C. (2018). Student perceptions of agricultural workforce readiness skills. Poster presented at the meeting of the Southern Association of Agricultural Scientists, Jacksonville, Florida.

Distinguished Research Poster

Hendrix, R. E., Parks, C., & Ricketts, J. C. (2011). Agricultural educaching: Using Geocaches in the classroom. Poster presented at the meeting of the National Association of Agricultural Educators, Coeur D'Alene, Idaho.

INVITED PRESENTATIONS

Smith, S., & **Hendrix, R. E.** (2022). Get Tagged to Teach Ag! *West Virginia State FFA Convention*. July 7, 2022.

Hendrix, R. E. (2021). Employability Skills in the Classroom. *West Virginia New Agricultural Educators' Workshop*. November 12, 2021.

Hendrix, R. E. (2021). Introduction to the Employment Skills Leadership Development Event. *West Virginia New Agricultural Educators' Workshop*. November 12, 2021.

Hendrix, R. E. (2021). Introduction to the Floriculture Career Development Event. *West Virginia New Agricultural Educators' Workshop*. November 12, 2021.

Hendrix, R. E. (2021). Introduction to the Nursery/Landscape Career Development Event. *West Virginia New Agricultural Educators' Workshop*. November 12, 2021.

Hendrix, R. E. (2019). Introduction to CASE and STEM. *West Virginia New Agricultural Educators' Workshop*. October 11, 2019.

Shrum, J. & **Hendrix, R. E.** (2019). Plant Propagation. *Hendersonville Garden Club July 2019 Meeting*. July 18, 2019.

Hendrix, R. E. (2019). Introductory Parliamentary Procedure. *Mississippi State University Collegiate FFA Parliamentary Procedure Workshop*. April 1, 2019.

Hendrix, R. E. (2019). Why Teach Ag Ed?. *AELC 4113 Methods of Teaching Agriscience*. February 7, 2019.

Hendrix, R. E. (2018). Setting SMART Goals. *Mississippi State University Collegiate FFA Leadership Development Workshop*. November 2, 2018.

Hendrix, R. E. (2018). Why Teach Ag Ed?. *Mississippi State University National Teach Ag Day*. September 20, 2018.

Hendrix, R. E. (2018). Preparing for Your Interview. *Mississippi 4-H Cooperative Leadership Conference*. July 18, 2018.

RESEARCH UNDER REVIEW

Hendrix, R. E., Swortzel, K. A., & McKibben, J.

Agricultural educators' personal teaching efficacy towards individual STEM subjects
Journal of Agricultural Education

Hendrix, R. E. & Veach, T.

Methods of Integration of Internet-Based Technology into Agricultural Education Classrooms
American Association for Agricultural Education, North Central Region Conference

Giorgi, A., **Hendrix, R. E.**, & Byrd, P. A.

An Exploration into Preservice Teacher's Time-Management and Stress
American Association for Agricultural Education, North Central Region Conference

TECHNICAL SKILLS

Adobe Creative Suite
ArcGIS Software
Curriculum Development
Event Planning
Floral Design
Global Positioning Systems
Greenhouse Management

LandscapePro Software
Livestock/Horse Evaluation
Microsoft Office
Oculus Rift VR Software
Parliamentary Procedure
Program Evaluation
Program Planning

Public Relations
Public Speaking
SPSS Statistical Software
Swivl Software
Workshop Development
Workshop Facilitation
Volunteer Management