

KRISTOPHER R. L. RANKIN III

Agricultural Education, Communications & Leadership

Phone: (575) 646-3713

krankin3@nmsu.edu

Professional Summary

Experienced agricultural teacher educator with over 10 years of experience teaching secondary and post-secondary students in agriculture and agricultural education subjects. Instructed and guided students to earn state and national awards through the National FFA organization. Currently aid and guide post-secondary preservice teacher-educators through the certification process to teach in school-based agricultural education programs.

EDUCATION

PhD Oklahoma State University, Agricultural Education, Comm. & Lead. May 2024

Dissertation: Identifying the Technical Skills Needed to Effectively Teach Agricultural Education: A Two-Phase Instrument Validation

Committee: Dr. Christopher J. Eck – Adv. & Chair, Dr. Jon W. Ramsey, Dr. J. Shane Robinson, & Dr. Ki L. Cole

Certificates: 1) Statistical Methods and Analyses in Education and Behavioral Sciences
2) Program Evaluation

MS Oklahoma State University, Agricultural Education, Comm. & Lead, Dec. 2021

Thesis: “Agricultural Power, Structures, and Technology Entry Level Skills: A Comparison of Industry Experts and School-Based Agricultural Education Teachers”

Committee: Dr. Jon W. Ramsey – Adv. And Chair, Dr. M. Craig Edwards, Mr. Nathan A. Smith

BS University of Missouri - Columbia, Agricultural Education May 2015

Advisor: Dr. Anna Ball

Minors: Animal Science & Plant Science

TEACHING EXPERIENCE

New Mexico State University, Las Cruces, NM

July 2024 to Present

Assistant Professor – Agricultural & Extension Education

- Instructor of record for undergraduate and graduate courses in Agricultural & Extension Education.
- Coordinated undergraduate and graduate research scholars in association with HSI – USDA NIFA Grant.
 - Develop mentorship partners with graduate and undergraduate students across disciplines in the College of Agriculture with faculty members representing

each department. Provide undergraduate and graduate research scholars with financial assistantship to conferences and journal publication fees.

- Lead instructor of record of:
 - AXED 1130: Techniques in Agricultural Mechanization
 - Development of competencies in agricultural mechanics including safety, tool identification, operation and maintenance of hand and power tools, cold metal, drafting, and plumbing procedures. Designed for any major wishing to improve mechanical skills needed in agriculturally related occupations in education and industry.
 - AXED 2996/3996/5996: Special Topics in Agricultural & Extension Education
 - Course addresses specific subjects and issues as identified by department.
 - AXED 4230: Directed Teaching in Agriculture and Technical Education
 - Semester-long off-campus professional experience in directed teaching and observation provided in selected centers under secondary agricultural or technology education supervising teachers. Consent of Instructor required.
 - AXED 4510/5510: Research Methodology
 - Introduction to research design and methodology in education and behavioral sciences. Overview of common research designs and data collection strategies. Prepares students to critique published research and understand basic skills including hypothesis development and conducting a literature search. Students must be in junior standing to enroll.
 - AXED 4991: Undergraduate Research in Agricultural & Extension Education
 - Research experience in agricultural, extension, and technology education with applications to selected issues and problems.
 - AXED 4997: Independent Study in Agricultural & Extension Education
 - Specific subjects are agreed upon by the student and instructor.
 - AXED 5110: Diffusion of Innovations
 - Factors that influence rates of diffusion and adoption of innovations. Consequences of adopting or rejecting innovations. Processes by which change agents influence introduction and adoption of innovations.
 - AXED 5515: Statistical Data Collection & Analysis
 - Introduction to basic concepts of data collection and analysis. Interpretations from observational studies and controlled experiments. Roles of descriptive and inferential statistics in a complete data analysis. Mean, median, standard deviation, and graphical summaries of data. Correlation and simple regression. One- and two-sample tests and confidence intervals. Chi-square tests and basic analysis of variance. Competency in arithmetic and algebra required. An undergraduate statistics course recommended.
 - AXED 5993: Workshop in Agricultural & Extension Education

- Workshop procedures applied to current trends in agricultural, extension, and technology education.
- AXED 5994: Creative Component in Agricultural & Extension Education
 - For non-thesis program. Individual investigations or projects, either qualitative or quantitative studies.
- AXED 5999: Master's Thesis in Agricultural & Extension Education
 - For thesis program. Individual investigations or projects, either qualitative or quantitative studies.

Oklahoma State University, Stillwater, OK

Aug. 2020 to June 2024

Graduate Teaching & Research Assistant, Agricultural Ed., Comm. & Lead.

- Aided in teaching undergraduate courses averaging 45–60 students per semester, covering teaching methods, instructional strategies, curriculum development, lesson planning, FFA, SAEs, program management, and professional development.
- Aided in developing quizzes, exams, and projects.
- Coordinated grading and labs with a team of 2–4 teaching assistants.
- Courses Taught & Assisted:
 - AGED 3101: Laboratories and Clinical Experiences in Agricultural Education
 - Preprofessional clinical experiences in agricultural education teaching and related careers. Requirement for admission to professional education, student teaching, and internships.
 - Lecture – Teaching assistant & guest lecturer (56 students)
 - AGED 3103: Foundations & Philosophies of Teaching Agricultural Education
 - Roles and responsibilities of the agricultural education teacher; types of program offerings; steps of the teaching-learning process; place of agricultural education in relation to other educational programs in school systems.
 - Lecture – Teaching assistant & guest lecturer (142 students)
 - Laboratory – Lead instructor (42 students)
 - AGED 3203: Advising Agricultural Student Organizations & Supervising Experiential Learning
 - Determining resources and trends of local communities with respect to agricultural production and agribusiness. Emphasis on agricultural education program policies, FFA chapter advisement, planning and managing the instructional program, identification and completion of records and reports required of a teacher of agricultural education in Oklahoma.
 - Lecture – Teaching assistant & guest lecturer (49 students)
 - Laboratory – Lead instructor (21 students)
 - AGED 4103: Methods of Teaching Agricultural Education
 - Facets of the teaching and learning process including teaching methods, basic teaching skills, proper classroom management techniques, and motivational techniques and ideas.
 - Lecture – Teaching assistant & guest lecturer (58 students)

- Laboratory – Lead instructor (21 students)
- AGED 4200: Student Teaching in Agricultural Education
 - Full-time directed experience in an approved agricultural education department. Applications of methods and skills in agricultural education as related to selecting, adapting, utilizing, and evaluating curriculum materials and experiences to meet educational goals and facilitate learning for individual students. Roles, responsibilities, and organization and operation of school systems.
 - Student teacher supervisor (12 students)
- AGED 4203: Professional Development in Agricultural Education
 - Professional preparation and development for careers as agricultural educators. Professional correspondences, interviewing, networking, and other employability skills. Reflection and evaluation of instruction, project supervision and advising of youth leadership development organizations.
 - Guest lecturer (116 students)
- AGED 4990: School-Based Learning Laboratories
 - Prepare pre-service teachers for the utilization and management of different learning laboratories within secondary education school-based agricultural education (SBAE) settings.
 - Lecture – **Instructor of record** (8 students)
- AST 3011: Agricultural Structures
 - Study of types of agricultural structures, building materials, construction tools and methods. Laboratory will provide opportunity to apply and develop associated skills.
 - Lecture – Teaching assistant & guest lecturer (104 students)
 - Laboratory – Co-instructor (104 students)
- AST 3211: Small Gas Engines
 - Theory, operation, performance, and diagnostics of internal combustion engines for mobile applications.
 - Lecture – Teaching assistant & guest lecturer (104 students)
 - Laboratory – Co-instructor (104 students)
- AST 4101: Agricultural Electrification
 - A study of electrical theory and electrical applications in agricultural environments.
 - Lecture – Teaching assistant & guest lecturer (103 students)
 - Laboratory – Co-instructor (103 students)

Southern Boone County High School, Ashland, MO
Teacher & Advisor, Practical arts (Agriculture)

July 2016 to June 2020

- Taught courses in Natural Resources, Animal Sciences, Plant Sciences, and Agricultural Powers, Structures & Technical Systems.
- Co-advised Ashland FFA (approx. 140-160 students annually)
- 2020 – National Chapter Model of Excellence Finalist
- 42 American FFA Degrees; 56 State FFA Degrees
- 7 – National Proficiency Finalists

- 1st (2017) & 5th (2019) place National Mid-America Grassland Evaluation team
- 7 – Top three State FFA CDE teams
- 8 – State FFA Proficiency winners
- 2 – State FFA Officer candidates

Cole Co. R-I High School, Russellville, MO

July 2015 to June 2016

Teacher & Advisor, Practical Arts (Agriculture)

- Taught courses in Introduction to Agriculture, Animal Science, Food Science, Woodworking, Metalworking
- Co-advised Ashland FFA (approx. 100-110 students annually)
- 10 State FFA degrees
- 1 State FFA Proficiency winner

STUDENT TEACHER SUPERVISION

- Kelsey Vitt – Fall 2020
- Shannon DeHaan – Spring 2021
- Ashley Silvers–Darsow – Spring 2021
- Colton McCorkle – Fall 2021
- Jacob Bedell – Spring 2022
- Sarah Lowmiller – Spring 2022
- Dylan Hardwick – Fall 2022
- Lauren Bilderback – Spring 2023
- Lucy Hodges – Spring 2023
- Kailey Damas – Spring 2024
- Thomas Hilton – Spring 2024
- Tiffani Snow – Spring 2024

INVITED PRESENTATIONS

52. **Rankin III, K. R. L.** (February 22, 2024). *Introduction to disassembling a small gas engine*. Presented to Spring 2024 AST 3211 ($N = 22$).

51. **Rankin III, K. R. L.** (February 19, 2024). *Introduction to Small Gas Engines*. Presented to Spring 2024 AST 3211 ($N = 22$).

50. **Rankin III, K. R. L.** (February 5, 2024). *Introduction to Foundational SAEs*. Presented to Spring 2024 AGED 3203 ($N = 51$).

49. **Rankin III, K. R. L.** (January 25, 2024). *Wiring single and dual duplex receptacles*. Presented to Spring AST 4101 ($N = 24$).

48. **Rankin III, K. R. L.** (January 26, 2024). *Ohm's Law & Practice*. Presented to Spring 2024 AST 4101 ($N = 24$).

47. **Rankin III, K. R. L.** (January 19, 2024). *Effective SAE Visits and Documentation*.

- Presented to Spring 2024 AGED 4203 ($N=26$).
46. **Rankin III, K. R. L.** (January 18, 2024). *Ag Mech Instruction Refresher*. Presented to Spring 2024 AGED 4203 ($N=26$).
 45. **Rankin III, K. R. L.** (January 17, 2024). *OWL Pellets Podcast: Tips for Ag Teachers Podcast – SBAE Teacher Needs*.
 44. **Rankin III, K. R. L.** (December 1, 2023). *SBAE Teacher Panel – SAE Supervision*. Presented to Fall 2023 AGED 3101 ($N=56$).
 43. **Rankin III, K. R. L.** (November 30, 2023). *Wiring In Three-way Switches*. Presented to Fall 2023 AST 4101 ($N=21$).
 42. **Rankin III, K. R. L.** (November 29, 2023). *Kirchoff's Law*. Presented to Fall 2023 AST 4101 ($N=21$).
 41. **Rankin III, K. R. L.** (November 17, 2023). *Promoting Your SBAE Program*. Presented to Fall 2023 AGED 3101 ($N=56$).
 40. **Rankin III, K. R. L.** (November 8, 2023). *Ohm's Law*. Presented to Fall 2023 AST 4101 ($N=21$).
 39. **Rankin III, K. R. L.** (November 2, 2023). Introduction to *Electrical Wiring*. Presented to Fall 2023 AST 4101 ($N=21$).
 38. **Rankin III, K. R. L.** (November 1, 2023). *Electrical terms and components*. Presented to Fall 2023 AST 4101 ($N=21$).
 37. **Rankin III, K. R. L.** (October 30, 2023). *Electrical Safety*. Presented to Fall 2023 AST 4101 ($N=21$).
 36. **Rankin III, K. R. L.** (October 11, 2023). *Concrete Calculations*. Presented to Fall 2023 AST 3011 ($N=19$).
 35. **Rankin III, K. R. L.** (October 9, 2023). *Concrete Characteristics*. Presented to Fall 2023 AST 3011 ($N=20$).
 34. **Rankin III, K. R. L.** (September 22, 2023). *The School Community*. Presented to Fall 2023 AGED 3101 ($N=56$).
 33. **Rankin III, K. R. L.** (August 21, 2023). *Effective SAE Visits and Documentation*. Presented to Fall 2023 AGED 4203 ($N=7$).
 32. **Rankin III, K. R. L.** (August 21, 2023). *Ag Mech Instruction Refresher*. Presented to Fall 2023 AGED 4203 ($N=7$).

31. **Rankin III, K. R. L.** (June 29, 2023). *Managing Small Agricultural Mechanics Projects*. Professional development for Oklahoma Agricultural Education teacher ($N = 24$).
30. **Rankin III, K. R. L.** (March 23, 2023). *Assessing Learning (Traditional & Authentic)*. Presented to Spring 2023 AGED 5813 ($N = 10$).
29. **Rankin III, K. R. L.** (March 8, 2023). *Concrete Calculations*. Presented to Spring 2023 AST 3011 ($N = 21$).
28. **Rankin III, K. R. L.** (January 25, 2023). *Components of the Long Block*. Presented to Spring 2023 AST 3211 ($N = 21$).
27. **Rankin III, K. R. L.** (January 20, 2023). *Tools used in Disassembly of Small Gas Engines*. Presented to Spring 2023 AST 3211 ($N = 21$).
26. **Rankin III, K. R. L.** (January 18, 2023). *Ag Mech Instruction Refresher*. Presented to Spring 2023 AGED 4203 ($N = 26$).
25. **Rankin III, K. R. L.** (January 17, 2023). *Effective SAE Visits and Documentation*. Presented to Spring 2023 AGED 4203 ($N = 26$).
24. **Rankin III, K. R. L.** (October 3, 2022). *Characteristics of Learners*. Presented to Fall 2022 AGED 3103 ($N = 42$).
23. **Rankin III, K. R. L.** (August 23, 2022). *Effective SAE Visits and Documentation*. Presented to Fall 2022 AGED 4203 ($N = 11$).
22. **Rankin III, K. R. L.** (August 23, 2022). *Effective SAE Visits and Documentation*. Presented to Fall 2022 AGED 4203 ($N = 11$).
21. **Rankin III, K. R. L.** (May 2, 2022). *Electrical Cost*. Presented to Spring 2022 AST 4101 ($N = 21$).
20. **Rankin III, K. R. L.** (April 25, 2022). *Ohm's Law*. Presented to Spring 2022 AST 4101 ($N = 21$).
19. **Rankin III, K. R. L.** (April 21, 2022). *Work/Life Balance*. Presented to Spring 2022 AGED 4103 ($N = 11$).
18. **Rankin III, K. R. L.** (April 18, 2022). *Types of circuits*. Presented to Spring 2022 AST 4101 ($N = 21$).
17. **Rankin III, K. R. L.** (March 8, 2022). *Formative and Summative Assessments*. Presented to Spring 2022 AGED 4103 ($N = 11$).

16. **Rankin III, K. R. L.** (March 7, 2022). *Concrete Calculations*. Presented to Spring 2022 AST 3011 ($N = 20$).
15. **Rankin III, K. R. L.** (February 23, 2022). *Selecting Lumber/Lumber Types*. Presented to Spring 2022 AST 3011 ($N = 20$).
14. **Rankin III, K. R. L.** (February 22, 2022). *Problem/Project Based Instruction*. Presented to Spring 2022 AGED 4103 ($N = 11$).
13. **Rankin III, K. R. L.** (February 2, 2022). *Lubricants*. Presented to Spring 2022 AST 3211 ($N = 21$).
12. **Rankin III, K. R. L.** (January 26, 2022). *Components of the Long Block*. Presented to Spring 2022 AST 3211 ($N = 21$).
11. **Rankin III, K. R. L.** (January 24, 2022). *Components of the Short Block*. Presented to Spring 2022 AST 3211 ($N = 21$).
10. **Rankin III, K. R. L.** (October 25, 2021). *Unit Assessments*. Presented to Fall 2021 AGED 3103 ($N = 41$).
09. **Rankin III, K. R. L.** (August 17, 2021). *Effective SAE Visits and Documentation*. Presented to Fall 2021 AGED 4203 ($N = 8$).
08. **Rankin III, K. R. L.** (July 8, 2021). *Greenhouse Maintenance*. Professional Development in service for Oklahoma agricultural educators ($N = 8$).
07. **Rankin III, K. R. L.** (June 17, 2021). *Quality and Assurance can GRANT Excellence in Your Classroom*. Professional Development in-service for Oklahoma Agricultural Educator Teachers Association Summer Conference ($N = 41$).
06. **Rankin III, K. R. L.** (February 18, 2021). *Effective SAE Visits and Documentation*. Presented to Spring 2021 AGED 3203 ($N = 41$).
05. **Eck, C. & Rankin III, K. R. L.** (January 19, 2021). *Biofuels STEM Curriculum*. Presented to Spring 2021 AGED 4203 ($N = 32$).
04. **Rankin III, K. R. L.** (October 26, 2020). *Unit Assessments*. Presented to Fall 2021 AGED 3103 ($N = 42$).
03. **Rankin III, K. R. L.** (July 23, 2019). *Early Career Success Practices*. Professional Development in-service for the Missouri Vocational Agricultural Teachers Association Summer Conference ($N = 21$).
02. **Rankin III, K. R. L.** (July 23, 2019). *Agricultural Mechanics contest seminar*. Professional Development in-service for the Missouri Vocational Agricultural

Teachers Association Summer Conference ($N = 17$).

01. **Rankin III, K. R. L.** (July 24, 2018). *Grassland Evaluation contest seminar*.
Professional Development in-service for the Missouri Vocational Agricultural
Teachers Association Summer Conference ($N = 22$).

RESEARCH EXPERIENCE

Dissertation, Oklahoma State University, Stillwater, OK 2024

Advisor & Chair: Dr. Christopher Eck

- Conducted a Delphi study to identify the technical skills needed by entry level school-based agricultural education teachers to teach agriculture content.
- Conducted a Principal Component Analysis of the technical skills needed by entry level school-based agricultural education teachers to teach agriculture content Delhi study utilizing a national census approach.

Thesis, Oklahoma State University, Stillwater, OK 2021

Advisor & Chair: Dr. Jon W. Ramsey

- Identified technical skills required by industry personnel in APST for secondary education graduates without post-secondary training.
- Identified technical skills taught in SBAE programs in APST by certified Oklahoma Agricultural Educator instructors.

PUBLICATIONS

Publication Summary

Peer-Reviewed Publication	Current Employment		Previous Employment	
	Published	In-Review	Published	In-Review
Journal Article	2	1	2	1
Conference Paper	2	–	11	–
Conference Poster	–	–	11	–
Conference Workshop	–	–	–	–
Non-Peer Reviewed Publication	[REDACTED]			
Popular Press	–	–	–	–
Conference Workshop	–	–	6	–

Journal Articles

04. Eck, C. J., **Rankin III, K. R. L.**, Marsh, K. N., Sewell, E.A., Best, R., Coleman, B. M.,

- Robinson, J. S. (*in press*). The impact of STEM exposure on students' knowledge and career aspirations: A biofuels experience. *Journal of Agricultural Education*.
03. Rankin III, K. R. L. & Edwards, M. C. (*in press*). A historical review of course requirements in agricultural mechanics for agricultural education, Teacher education undergraduates at nine 1862 land-grant universities. *Journal of Research in Technical Careers*.
02. Eck, C. J., Rankin III, K., & Robinson, J. S. (*in press*). Purposeful STEM integration in school-based agricultural education programs. *Journal of Research in Technical Careers*, 7(2), 57–74. <https://digitalscholarship.unlv.edu/jrtc/vol7/iss2/>
01. Marsh, K. N., Rankin III, K. R. L., Eck, C. J., & Smith, N. A. (2023). Determining the needs of school-based agricultural education teachers in Oklahoma. *Journal of Southern Agricultural Education Research*, 73. <http://jsaer.org/2023/09/12/determining-the-needs-of-school-based-agricultural-education-teachers-in-oklahoma/>

Journal Articles in Review

02. Rankin III, K. R. L., Eck, C. J., Coleman, B. M., Marsh, K. N., Smith, N. A. (in review - submitted 07/22/2024). The needs of Oklahoma school-based agricultural education teachers related to teaching agriculture, food and natural resources topics. *Advancements in Agricultural Development*.
01. Rankin III, K. R. L., & Ramsey, J. W. (in review – Submitted – 10/01/2023). A comparison of industry experts and school-based agricultural education teachers' views in Oklahoma on agricultural power, structures, and technology entry-level skills. *Journal of Research in Technical Careers*.

Peer-reviewed Conference Papers & Presentations

13. Rankin III, K. R. L., Eck, C. J., Robinson, J. S., Ramsey, J. W., Cole. K. L. (2024, Sept. 9–11). *Identifying the technical skills needed to effectively teach agricultural education* [Paper Presentation]. Western Region Conference of the American Association for Agricultural Education, Chico, CA.
12. Rankin III, K. R. L., Eck, C. J., Robinson, J. S., Ramsey, J. W., Cole. K. L. (2024, Sept. 9–11). *Bridging the gap: A comparison of technical skill competency and SBAE teacher profiles* [Paper Presentation]. Western Region Conference of the American Association for Agricultural Education, Chico, CA.
11. Eck, C. J., Rankin III, K., Marsh, K., Sewell, M., Best, R., Coleman, B. & Robinson, J. S. (2024, May 20–23). *The Impact of a weeklong STEM immersion curriculum experience in school-based agricultural education* [Paper Presentation]. 2024 National AAAE Conference, Manhattan, KS. <https://shorturl.at/RT1cg>

10. **Rankin III, K. R. L.**, Eck, C. J., Marsh, K. N., Coleman, B. M., Smith, N. A. (2024, May 20–23). *The needs of Oklahoma school-based agricultural education teachers related to teaching agriculture, food and natural resources topics* [Paper Presentation]. 2024 National AAAE Conference, Manhattan, KS.
<https://shorturl.at/RT1cg>
09. **Rankin III, K. R. L.**, Eck, C. J., Coleman, B. M., Marsh, K. N., Smith, N. A. (2023, September 18–20). *The needs of Oklahoma school-based agricultural education teachers related to teaching agriculture, food and natural resources topics* [Paper Presentation]. Western Region AAAE Research Conference, Logan, UT.
<https://aaaeonline.org/resources/Documents/Western%20Region/2023meeting-%20Logan,%20UT/2023%20WR-AAAE%20Final%20Research%20Proceedings.pdf>
08. **Rankin III, K. R. L.**, & Edwards, M. C. (2023, May 14-18). *A historical review of course requirements in agricultural mechanics for agricultural education, teacher education undergraduates at nine 1862 land-grant universities* [Paper Presentations]. 2023 National AAAE Conference, Raleigh, NC.
https://aaea.wildapricot.org/resources/Documents/National/2023Meeting/23_AAAE_Proceedings_combined_FINAL.pdf
07. Marsh, K. N., **Rankin III, K.**, Eck, C. J., & Smith N. A. (2023, May 14-18). *Determining the needs of school-based agricultural education teachers in Oklahoma* [Paper Presentation]. 2023 National AAAE Conference, Raleigh, NC.
https://aaea.wildapricot.org/resources/Documents/National/2023Meeting/23_AAAE_Proceedings_combined_FINAL.pdf
06. Eck, C. J., Smith, N., **Rankin III, K.**, & Marsh, K. (2023, February 5-7). *Curricular Needs of Oklahoma School-Based Agricultural Education Teachers* [Paper Presentation]. Southern Region Conference of the American Association of Agricultural Education, Oklahoma City, OK.
https://aaaeonline.org/resources/Documents/Southern%20Region/2023Southern%20Conference/2023_Southern%20Region%20AAAE%20Program_Final.pdf
05. Manuel, E. O., Best, R. W., **Rankin, III, K. R. L.**, Sewell, E. A., Coleman, B. M., Terry, Jr., R., & Teixeira, K. L. (2023, February 5-7). *Preferred Gregorc learning styles of preservice SBAE teachers in an introductory course* [Paper Presentation]. Southern Region Conference of the American Association for Agricultural Education Conference, Oklahoma City, OK.
https://aaaeonline.org/resources/Documents/Southern%20Region/2023Southern%20Conference/2023_Southern%20Region%20AAAE%20Program_Final.pdf
04. Eck, C. J., **Rankin III, K.**, & Robinson, J. S. (2023, January 3-6). *Purposeful STEM integration in school-based agricultural education programs*. 2023 Hawaii International Conference on Education, Honolulu, HI.

<https://iafor.org/archives/conference-programmes/iicehawaii/iicehawaii-programme-2023.pdf>

03. Rankin III, K. R. L., & Smith, N. A. (2022, October 26). *Enhancing motivation by increasing self-efficacy: assessing the impact of one-credit hour courses in small gas engines, agricultural structures, and agricultural electricity: A pilot study*. 41st National Agricultural Mechanics Professional Development Blue Ribbon Papers Research Conference. Indianapolis, IN, United States. (**Distinguished Research Manuscript**). <http://namfdc.agedweb.org/page-3/>
02. Eck, C. J., Rankin III, K., & Robinson, J. S. (2022, May 16-19). *Purposeful STEM Integration in School-Based Agricultural Education Programs* [Paper Presentation]. National Conference of the American Association of Agricultural Education. Oklahoma City, OK, United States. <https://assets.swoogo.com/uploads/1879239-62ac7e146fdf3.pdf>
01. Eck, C. J., Rankin III, K., & Robinson, J. S. (2022, February 7-10). *Purposeful STEM Integration in School-Based Agricultural Education Programs* [Paper Presentation]. Southern Region Conference of the American Association of Agricultural Education. New Orleans, LA, United States. http://aaaeonline.org/resources/Documents/Southern%20Region/2022SouthernConference/2022SouthernAAAE_ResearchProceedings.pdf

Peer-reviewed Conference Papers & Presentations in Review

Peer-reviewed Conference Poster Presentations

11. Rankin III, K. R. L., Tummons, J. D., Eck, C. J., & Smith, N. A. (2023, September, 27–29). *Technical Agriculture Content Courses Required for Undergraduate Degree Completion in Agricultural Education: A Historical Review* [Poster Presentation]. 2023 North Central Agricultural Education Conference and National Conference on Learner-Centered Teaching, Brookings, SD.
10. Rankin III, K. R. L., & Smith, N. A. (May 14–18). *Comparison of self-efficacy toward technical skills and motivation to teach content prior to and after three Agricultural systems and technology courses* [Poster Presentation]. National AAEE Conference, Raleigh, NC. <http://www.agedweb.org/aaae/Proceedings.asp?EventID=92>
09. Rankin III, K. R. L., & Edwards, M. C. (2023, February 5–7). *Content Taught in Agricultural Mechanics Courses, 1980 to 2021: A Survey of Nine 1862 Land Grant Universities* [Poster presentation]. Southern Region Conference of the American Association for Agricultural Education. <https://aaaeonline.org/resources/Documents/Southern%20Region/2023Southern%20Conference/SR-AAAE%20Poster%20Proceedings%202023.pdf>

08. Eck, C. J., **Rankin III, K.**, & Marsh, K. N. (2023, February 5–7). *School Based Agricultural Education Teacher Aspirants Interest in CASE Curriculum Training to Support Early Career Success* [Poster presentation]. Southern Region Conference of the American Association for Agricultural Education. <https://aaaeonline.org/resources/Documents/Southern%20Region/2023Southern%20Conference/SR-AAAE%20Poster%20Proceedings%202023.pdf>
07. Marsh, K., **Rankin III, K.**, Eck, C. J., & Smith, N. (2023, February 5–7). *Determining the Professional Development Needs of School-Based Agricultural Education Teachers in Oklahoma* [Poster presentation]. Southern Region Conference of the American Association for Agricultural Education. <https://aaaeonline.org/resources/Documents/Southern%20Region/2023Southern%20Conference/SR-AAAE%20Poster%20Proceedings%202023.pdf>
06. **Rankin III, K. R. L.**, & Ramsey, J. (2022, September 19–21). *A Review of Entry-Level Technical Skills in Agricultural Power, Structures, and Technology in a State Adopted Curriculum- A Delphi Study* [Poster presentation]. 2022 Western Region Conference of the American Association for Agricultural Education. http://aaaeonline.org/resources/Documents/Western%20Region/2022meeting/2022_WAAAE_Poster_Proceedings091722.pdf
05. Teixeira, K. L., Manuel, E. O., Sewell, E. A., **Rankin III, K. R. L.**, & Terry, R. (2021, September 27–29). *Using the Gregorc style delineator to demonstrate student learning styles* [Poster Presentation]. 2021 Western Region Conference of the American Association for Agricultural Education. http://aaaeonline.org/resources/Documents/Western%20Region/2021meeting/2021_WAAAE_Poster_Proceedings.pdf
04. Eck, C. J., **Rankin, K.**, & Robinson, J. S. (2021, June 21–24). *Enhancing student learning through purposeful STEM integration* [Poster presentation]. 67th Annual National Association of Colleges and Teachers of Agriculture Conference. <https://assets.swoogo.com/uploads/1200624-60c36832c327e.pdf>
03. Toombs, J. M., **Rankin III, K. R. L.**, Manuel, E. O., Sewell, E. A., & Terry, Jr., R. (2021, May 24–27). *Roles of a school-based agricultural education teacher: Changes in perceptions of preservice teachers* [Poster presentation]. American Association for Agricultural Educators National Conference. https://ostatemailokstate-my.sharepoint.com/:p:/g/personal/emily_manuel_okstate_edu/ESPgkHChbLJBhrqxsCU8K-oB0pYrOTuBRQfqeP_HjecMbg?e=4%3AmjCAd2&at=9&CID=ac86da0d-e0ce-92e2-74cf-b65df2f1b05c
02. Toombs, J. M., Smith, N. A., **Rankin III, K. R. L.**, Sewell, E. A., Manuel, E. O., & Ramsey, J. W. (2021, May 24–27). *Virtual preservice observations in the COVID-19 era* [Poster presentation]. American Association for Agricultural Educators National Conference. <https://ostatemailokstate->

my.sharepoint.com/:p/r/personal/nathan_smith_okstate_edu/_layouts/15/Doc.aspx?sourcedoc=%7B807A94ED-10FD-4BA6-AB81-F864A36608A8%7D&file=Innovative%20Poster.pptx&action=edit&mobileredirect=true

01. Toombs, J. M., Smith, N. A., **Rankin III, K. R. L.**, Sewell, E. A., Manuel, E. O., & Ramsey, J. W. (2021, February 8–10). *Virtual preservice observations in the COVID-19 era* [Poster presentation]. Southern Region Conference of the American Association for Agricultural Education.
<http://aaaeonline.org/resources/Documents/Southern%20Region/2021SouthernConference/2021SouthernInnovativePosters.pdf>

Peer-reviewed Conference Poster Presentations in Review

GRANTSMANSHIP

- Young Agriscientist Scholars, (\$1,000,000 – Funded):** The purpose of this program is to encourage and support underrepresented students' participation in undergraduate and graduate research. Developed mentorship partners with graduate and undergraduate students across disciplines in the College of Agriculture with faculty members representing each department. Provide undergraduate and graduate research scholars with financial assistantship to conferences and journal publication fees. (July, 2024)
- Briggs & Stratton, (\$11,987.92 – Funded):** Funding for new OHV small gas engines for the teaching of related curriculum in teacher preparation courses. (October, 2021).
- Pesticide Training & Certification, (\$15,000 – not funded):** Training seminar and online training curriculum modules for Oklahoma agricultural educators and extension agents. (August, 2021).
- Department of Elementary and Secondary Education (DESE), (\$34,800 – Funded):** Funding for new equipment for school-based agricultural education (SBAE) program agricultural mechanics shop, greenhouse, and classroom. (September, 2019).
- Department of Elementary and Secondary Education (DESE), (\$78,250 – Funded):** Funding for new equipment for school-based agricultural education (SBAE) program agricultural mechanics shop. (September, 2018).
- Curriculum for Agricultural Science Education (CASE), (\$2,000 – Funded):** Curriculum implementation for school-based agricultural education (SBAE) program. (February, 2018).
- National FFA Day of Service Grant, (\$1,000 – Funded):** Implementation of community flower beds across Ashland, Missouri with the support of the Ashland, MO Master Gardeners Club.

Department of Elementary and Secondary Education (DESE), (\$48,750 – Funded):
 Funding for new equipment for school-based agricultural education (SBAE) program
 agricultural mechanics shop, greenhouse, and classroom. (September, 2017).

Curriculum for Agricultural Science Education (CASE), (\$2,000 – Funded): Curriculum
 implementation for school-based agricultural education (SBAE) program. (February,
 2017).

Department of Elementary and Secondary Education (DESE), (\$22,500 – Funded):
 Funding for new equipment for school-based agricultural education (SBAE) program
 agricultural mechanics shop and greenhouse. (September, 2016).

PROFESSIONAL AFFILIATIONS

National Association of Agricultural Educators (NAAE)	2015 – Present
National Association of Colleges and Teachers of Agriculture (NACTA)	2021 – Present
Association for Career & Technical Education Research (ACTER)	2021 – Present
American Association of Agricultural Educators (AAAE)	2020 – Present
Missouri Vocational Agricultural Teachers Association	2015 – 2020
Association for Career and Technical Education	2015 – 2020

PROFESSIONAL SERVICE

Professional Organization Reviewer Service Summary

Peer-Reviewed Publication	Current Employment		Previous Employment	
	Manuscripts	Abstracts	Manuscripts	Abstracts
Regional Conference	–	10	3	7
National Conference	–	–	13	23
Inter. Conference	–	–	–	–
Journal Publications	–	–	3	–

American Association of Agricultural Education – Western Region 2024
 Poster abstract reviewer ($N = 10$)

American Association of Agricultural Education – National Conf. 2024
 Research paper manuscript reviewer ($N = 7$)

American Association of Agricultural Education – National Conf. Research poster abstract reviewer ($N = 8$)	2024
American Association of Agricultural Education – National Conf. Innovative poster abstract reviewer ($N = 7$)	2024
Curriculum for Agriscience Education – SGE Lead instructor for (2) institutions	2024
Oklahoma Youth Expo – Ag Mechanics Show Divisional & Championship Judge	2024
San Antonio Agriculture Mechanics Show & Expo Class & Division Judge	2024
La Flore Co. Agricultural Mechanics Show Event Judge	2024
Southwest District Agricultural Mechanics Show Event Judge	2024
Journal of Agricultural Education – Manuscript reviewer (1) review	2024
Curriculum for Agriscience Education – AFNR Assisted in the facilitation of a CASE AFNR institute ($N = 24$)	2023
Curriculum for Agriscience Education – Ag X Assisted in the facilitation of a BriefCASE Ag X institute ($N = 24$)	2023
Oklahoma State University – State Interscholastics Agricultural Electricity Assistant Superintendent	2023
American Association of Agricultural Education – National Conf. Innovative Idea poster abstract reviewer ($N = 8$)	2023
American Association of Agricultural Education – National Conf. Research paper manuscript reviewer ($N = 4$)	2023
Oklahoma Youth Expo – Ag Mechanics Show Divisional & Championship Judge	2023
San Antonio Junior Agriculture Mechanics Show & Expo Class and Division Judge	2023

Southwest District Agricultural Mechanics Show Event Judge	2023
Columbia FFA CDE Day – Soils Contest Soils contest proctor	2023
Columbia FFA LDE Day – Division 2 Speech Contest Speech contest judge	2023
Stillwater Agriscience Fair Expo Agriscience Fair Speech Judge	2023
Journal of Career & Technical Education (JCTE) Journal Reviewer (1)	2022
Journal of Research in Technical Careers (JRTC) Journal Reviewer (1)	2022
American Association of Agricultural Education – Southern Region Research paper manuscript reviewer ($N = 3$)	2022
American Association of Agricultural Education – Western Region Poster abstract reviewer ($N = 7$)	2022
Oklahoma Youth Expo – Ag Mechanics Show Ag Mechanics Show Showmanship Judge	2022
Workshop on CNC Plasma Operations Workshop for schools within Missouri ($N = 21$)	2022
Association for Career and Technical Education Research National Conference Paper Proposal Reviewer ($N = 2$)	2022
Oklahoma State University – AECL GSA President & member of AECL graduate student organization	2021– Present
Oklahoma Youth Expo – Ag Mechanics Show Ag Mechanics Show Graduate Assistant	2021
Oklahoma State University – State Interscholastics Freshman Agriscience Quiz bowl Superintendent	2021– Present
Oklahoma State University – State Interscholastics Agricultural Education CDE Judge	2022
FFA Officer Interviews – Panel Interviewer	

Stillwater FFA – Stillwater, OK	2021
Ripley FFA – Ripley, OK	2021, 2022
Collegiate FFA Speech Contest - Judge	2021, 2023
University of California – Davis CFFA Spring Speech Contest	
Oklahoma State University – GSPGA	2020–
Graduate student organization member	Present

PROFESSIONAL TRAINING AND CERTIFICATIONS

CASE SGE , Curriculum for Agricultural Science Education, Course curriculum designed for a short course in Small Gas Engines	2023
CASE AFNR , Curriculum for Agricultural Science Education, Course curriculum designed for a full year course in Agriculture, Food, and Natural Resources	2023
Beginning Teaching Workshop: Ferguson College of Agriculture,	2021, 2022, 2023
ITLE: Grad. Teaching Workshop: Oklahoma State University,	2020, 2021 2022, 2023
CASE NRE , Curriculum for Agricultural Science Education, Course curriculum designed for a full year course in Natural Resources and Ecology.	2018
CASE APT , Curriculum for Agricultural Science Education, Course curriculum designed for a full year course in Agricultural Power & Technology.	2017

HONORS AND AWARDS

Western Region AAAE Conference Scholarship	2023
NACTA Distinguished Graduate Student Teaching Award	2023
Oklahoma State University – AECL GSA Distinguished PhD Graduate Student	2023
Williams Endowed Distinguished Graduates Fellowship	2023
James & Hattie Barker Scholarship Graduate Student Scholarship	2021, 2022

TECHNOLOGY PROFICIENCIES

- Computer Aided Design (CAD) programing of CNC metal cutting machines
- Computer Aided Design (CAD) programing of CNC wood routing machines
- Microsoft Office Suite
- SWIVL video data capture
- Zoom Video Conferencing
- IBM SPSS Statistical Software (Ver. 23 – 29)
- Canvas LMS
- S.I.S. LMS
- LiveText by Watermark

PROFESSIONAL REFERENCES

Dr. Christopher J. Eck, Assistant Professor-Agricultural Education
Agricultural Education, Communications & Leadership
457 Agricultural Hall
Oklahoma State University
Stillwater, OK 74078
Phone: (405)-744-8072
Email: chris.eck@okstate.edu

Dr. Jon W. Ramsey, Professor- Agricultural Education & Graduate Student Coordinator
Agricultural Education, Communications & Leadership
466 Agricultural Hall
Oklahoma State University
Stillwater, OK 74078
Phone: (405)-744-4260
Email: jon.ramsey@okstate.edu

Dr. Nathan A. Smith, Instructor-Agricultural Education
Agricultural Education, Communications & Leadership
456 Agricultural Hall
Oklahoma State University
Stillwater, OK 74078
Phone: (405)-744-8251
Email: nathan.smith@okstate.edu

Dr. Robert Terry Jr., Professor & Department Head
Agricultural Education, Communications & Leadership
449 Agricultural Hall
Oklahoma State University
Stillwater, OK 74078
Phone: (405)-744-8036
Email: rob.terry@okstate.edu

Dr. Ki L. Cole, Associate Professor-Research, Evaluation, Measurement & Statistics Faculty
Educational Foundations, Leadership & Aviation
313 Willard Hall
Oklahoma State University
Stillwater, OK 74078
Phone: (405)-744-9611
Email: ki.cole@okstate.edu