



UNIVERSITY OF
GEORGIA

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College of Agricultural & Environmental Sciences

Agricultural Leadership, Education & Communication

The University of Georgia
405 College Station Road
Athens, GA 30602

February 28, 2023

Subject: Center for Elementary Agricultural Education

Dear Dr. Josef Broder,

I am submitting a proposal for the Center for Elementary Agricultural Education to support research, grantsmanship, and capacity building related to elementary agricultural education at The University of Georgia.

Attached, please find the proposal, as well as letters of support from the College of Agriculture and Environmental Science and the Mary Francis Early College of Education. A strong relationship between the faculty from Educational Psychology and Science Education and the faculty in Agricultural Education has been established through their collective effort in the Elementary Agricultural Education P-5 Endorsement. The Department of Agricultural Leadership, Education, and Communication, College of Agriculture, and Environmental Science, and Mary Frances Early College of Education are all in agreement and supportive of this center.

If you have any questions regarding the attached report, please contact Jason Peake at (229) 392-6097 or jpeake@uga.edu.

Sincerely,

Jason B. Peake
Professor



**UNIVERSITY OF
GEORGIA**

College of Agricultural and Environmental Affairs
Office of Academic Affairs

February 15, 2023

Jason Peake
Professor of Agricultural Leadership, Education, and Communication
College of Agricultural and Environmental Sciences
The University of Georgia
132 Four Towers
Athens, GA 30602-4355

Dear Dr. Peake:

I gladly offer a letter of endorsement regarding your project to initiate a Center for Elementary Agricultural Education (CEAE) at The University of Georgia.

The Center for Elementary Agricultural Education (CEAE) takes an innovative approach to incorporating faculty from multiple areas of specialization to explore formal Elementary Agricultural Education (EAE). This center is responsible for providing leadership in implementing state mandated EAE initiatives, bolstering capacity in the educational system, and acquiring grants to support the EAE initiative. The CEAE has formed a diverse and dedicated group of researchers to carry out research projects and grant-seeking activities, disseminating the results of their work to the wider academic community.

This center has already been given the go-ahead by the College of Agricultural and Environmental Sciences Faculty Council and the allocation of resources for potential extra office space for grant funded Graduate Research Assistants is understandable. You have brought together an excellent interdisciplinary team of faculty to help accomplish the outcomes stated in your proposal. I am delighted to give my support for this project.

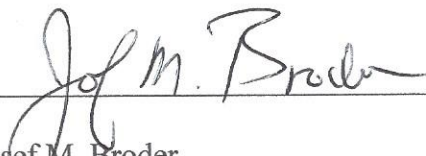
Sincerely,

DocuSigned by:

Nick T. Place

D4E89279A1FA4DE...

Nick T. Place,
Dean and Director



Josef M. Broder,
Associate Dean for Academic Affairs



UNIVERSITY OF
GEORGIA

Mary Frances Early College of Education

Office of the Dean

Aderhold Hall
110 Carlton Street
Athens, Georgia 30602
706-542-1414
coe.uga.edu

February 27, 2023

Jason Peake

Professor of Agricultural Leadership, Education, and Communication

College of Agricultural and Environmental Sciences

The University of Georgia

132 Four Towers

Athens, GA 30602-4355

Dear Dr. Peake:

I am pleased to provide a letter of support for your project to create a transdisciplinary Center for Elementary Agricultural Education (CEAE) at The University of Georgia.

The CEAE is an exciting project with outstanding potential to advance agricultural education and increase the impact of our teaching efforts in the Mary Frances Early College of Education, particularly in the Elementary Education program and in the Department of Agricultural Leadership, Education, and Communication. The Elementary Education program is UGA's largest teacher education program, graduating between 100-150 new teachers each academic year across the BSEd and MAT programs, and our Masters, Education Specialist, and PhD programs also serve hundreds of educators each year.

You have put together an outstanding interdisciplinary team of faculty who will help meet the outcomes described in your proposal. Faculty from Educational Psychology and Science Education have an established relationship with the faculty in Agricultural Education through their joint implementation of the Elementary Agricultural Education P-5 Endorsement. Your project will offer advanced educational opportunities for teachers and ultimately increase the quality of education within both ALEC and College of Education courses. I gladly offer my support for this project.

Sincerely,

Denise A. Spangler

Dean

2023

Center for Elementary Agricultural Education

Request for support to establish a Center for Elementary Agricultural Education to pursue emerging research areas and pursue externally funded projects at University of Georgia

Dr. Jason Peake, Professor
Agricultural Leadership, Education and Communication



Center for Elementary Agricultural Education

Director: Jason Peake, Professor

Co-Directors: Michael Barger, Assistant Professor; Julie M. Kittleson, Associate Professor & Department Head; Amanda Marable, Extension 4-H Specialist; Maria Navarro, Professor; and Robert Pazdro, Associate Professor

**Department of Agricultural Leadership, Education and Communication
College of Agricultural and Environmental Science, University of Georgia**

Abstract

The University of Georgia announces a new *Center for Elementary Agricultural Education*, based in the Department of Agricultural Leadership, Education, and Communication (ALEC) to assist faculty seeking federal funding for and research related to the integration of Elementary Agricultural Education (EAE) in public elementary schools.

The Center for Elementary Agricultural Education supports research, grantsmanship, and capacity building. Specialists offer collaboration opportunities in partnership with scientists to plan, design, write, and evaluate project activities for increasing capacity of and broader impacts for EAE.

The Center for Elementary Agricultural Education specialists work closely with interested parties to identify and target funding opportunities related to EAE. The goal is to increase capacity for UGA and Georgia to support EAE and to be more competitive for federal funding related to EAE. The Center will assemble subject matter experts, research scientist, reviewers, editors, and investigators to ensure that grant proposals are well-positioned to win awards.

The Center for Elementary Agricultural Education will also create the EAE national research agenda and direct research efforts related to EAE. Center members will facilitate and enhance partnerships and collaborations between researchers, government, and schools providing structure and training that promotes creativity and rigor in EAE research. Ensure policies and programs advance EAE while ensuring ethical compliance. Finally, foster a diverse and inclusive environment for partners interested in EAE research.

EAE and ALEC Background

In the spring of 2018, the Georgia House and Senate unanimously passed a bill that established a pilot program for Elementary Agricultural Education (EAE) in Georgia. Senate Bill 330 introduced elementary agricultural education into the current scholastic landscape. Beginning in the fall of 2019, 26 pilot programs began teaching elementary agriculture throughout Georgia, these programs became permanent in 2022.

The Department of Agricultural Leadership, Education and Communication (ALEC) was founded in 1996 in the College of Agricultural and Environmental Science (formally housed in the College of Education from the 1920s) for the purpose of training secondary agriculture teachers per the Smith Hughes National Vocation Act of 1917. The act authorized funds for promoting vocational education nationwide. The department has since expanded to include evaluation research, environmental education, youth and adult leadership development, and communications specifically for the agricultural and natural resources industries.

ALEC employs 11 tenure-track faculty, one Extension Specialist (AGL Director), one department head, and houses Advancing Georgia's Leaders (AGL) program. There are 100 undergraduate students in two undergraduate majors, Agricultural Education and Agricultural Communication, and 42 graduate students enrolled in the Master of Agricultural and Environmental Education (MAEE) degree program. A new Ph.D. in ALEC is underway with the first Ph.D. students who started in the fall 2018.

Faculty specialize in the disciplines of Agricultural Education (n=3), overlapping with other disciplines), Adult and Youth Leadership (n=2), International Agricultural Development (n=2), Agricultural Education (youth, adult, formal and non-formal) (n=4), and Agricultural Communication (n=3).

Purpose of the Center for Elementary Agricultural Education (EAE)

The purpose of the Center for Elementary Agricultural Education is to assemble a group of transdisciplinary faculty members from a variety of units, departments, and colleges to create a synergistic team who will pursue grants and research that would otherwise not be feasible for any single unit or department at UGA.

Impact of the Center for Elementary Agricultural Education

This Center for EAE will directly impact:

1. Twenty-six Elementary Agricultural Education (EAE) pilot program teachers in GA who are currently teaching in K-5 schools. This number will increase as new EAE teachers are added.
2. Approximately 13,708 GA elementary students located in the 26 Georgia pilot program schools with an average school enrollment of 503 will be impacted. Approximately 18,067 unique students over a three-year period.
3. Approximately 7 teacher education faculty located at the University of Georgia (UGA) College of Agricultural and Environmental Sciences (CAES) Agricultural Leadership, Education, and Communication (ALEC) Department and UGA College of Education (COE).
4. Approximately 30 preservice teachers who will be trained to teach EAE in Georgia
5. Further establish UGA as the national leader in EAE research.

Need for Center for Elementary Agricultural Education at University of Georgia

The basis of this center arose from the training needs of existing and preservice EAE teachers, UGA undergraduates pursuing a minor and endorsement to teach EAE, and elementary schools who need direction related to EAE. Evidence exists to support agricultural education in elementary schools is beneficial in producing a more scientifically and agriculturally literate base. Georgia was the first state in the United States to implement elementary agricultural education; in order for Georgia to remain the national leader in EAE a transdisciplinary Center for Elementary Agricultural Education is needed.

Agricultural education has been absent or only a peripheral part of elementary education until 2019; however, Georgia established a pilot program to include Elementary Agricultural Education (EAE) in K-5th grades starting fall. Florida, Texas, and Missouri also recently passed a similar bill with Mississippi and additional states moving toward establishing EAE programs. The theory in educating elementary students is that we can reach them during key developmental stages and create an interest in food and agriculture. However, there are no teacher training programs, no professional development, no model for EAE classrooms and laboratories, and no Pedagogical Content Knowledge (PCK) to formally equip EAE teachers to teach elementary agricultural education. We are at a key juncture to establish EAE programs correctly, UGA needs capacity to pursue grants and direct research.

This work cannot be performed by the ALEC department alone. While ALEC houses the experts and institutional knowledge for Agricultural Education, Agricultural Communications, and Agriculture Leadership at UGA additional specialists are required to address the needs of EAE. The core members of the center will be composed of specialists in Elementary Education Psychology, Food and Nutrition, Elementary Education STEM integration, 4-H Youth Leadership, and Community School Gardens. Additional experts will be included as guest members in the center as needed by grant and research projects.

Center for Elementary Agricultural Education Unit (ALEC)

Agricultural Education Specialists within ALEC propose creating the Center for Elementary Agricultural Education housed in the ALEC department for the purpose of offering comprehensive agricultural education services in partnership with scientists. Jason Peake has served as the lead faculty for EAE since inception in 2019, he will provide leadership and direction for the Center for Elementary Agricultural Education.

Agricultural Education specialists are committed to advancing the theory, practice, and use of EAE through grantsmanship, research, education, and capacity building activities. Elementary Agricultural Education specialists adhere to the American Association for Agricultural Education standards for practice and guiding principles of systematic inquiry, professional competence, integrity and honesty, respect for people, and responsibilities for the general and public welfare.

Goals

1. To pursue grant funding to support elementary agricultural education;
2. Design, conduct, and disseminate research that works to inform decision-making and promote broader impacts of elementary agricultural education.

The goals of EAE cannot be accomplished in an efficient and effective manner through existing departments, schools, colleges, institutes, or other units. A transdisciplinary approach achieved through a center is required.

Goal Outcomes and Metrics

1. To apply for and secure federally funded grants in excess of \$500,000 annually (eg. NIFA, NSF, USDA, etc).
2. Increase student interest in agriculture at an earlier age and increase student interest in pursuing higher education related to agriculture with the intent to increasing the workforce pipeline feeding the agriculture industry.
3. Develop and disseminate the first national research agenda for EAE. Special emphasis given to research partnerships with the Institute for Integrative Precision Agriculture (IIPA) and Artificial Intelligence (AI).
4. Contribute to the production of five peer reviewed journal articles per year pertaining to EAE.

These faculty members were successful in securing a USDA NIFA Professional Development in Agricultural Literacy Grant in 2020, two agriculture commodity group grants in 2019 and 2020, and are pursuing a USDA NIFA Higher Education Challenge Grant in 2022.

Annual Review Process

The annual goals, outcomes, and metrics of the Center for Agricultural Education are straight forward and direct measures. The CAES Dean and Director will review the outcomes of the Center for Elementary Agricultural Education annually.

Funding Model to Support Center for Elementary Agricultural Education

The operational costs of the Center for Elementary Agricultural Education are low. Members of the center are asked to meet twice a year to create grant writing teams and create/revise an EAE research agenda. Future funding to support research will come from successful grant writing teams.

Budget Request for Start-Up Funds

There is no budgetary request to support the establishment of the Center for Elementary Agricultural Education. The unit will be housed within the Agricultural Leadership, Education, and Communication (ALEC) Department. The center will be financially self-sustaining through successful grants.

The director (Jason Peake) and co-directors (Michael Barger, Julie Kittleson, Amanda Marable, Maria Navarro, and Robert Pazdro) have existing office space within their respective departments at UGA, no additional office space will be required for faculty members. With the anticipated addition of Ph.D. level graduate assistants to help support the efforts of the unit, additional office space will be needed.

Faculty Membership

This center will initially consist of five senior tenure-track faculty members and one Extension Specialist with over 80 years of combined experience conducting educational grantsmanship and research, in addition to participating junior faculty as capacity expands. Future partnerships will likely include faculty from the Institute for Integrative Precision Agriculture (IIPA), Artificial Intelligence (AI), and Educational Psychology. The initial team of committee members will make suggestions for appropriate future members, proposed new members will be voted on by current membership and approved by the center director, Jason Peake.

Dr. Michael Barger holds a Ph.D. in Developmental Psychology from Duke University and currently serves as an Assistant Professor in the Department of Educational Psychology at UGA. He works in applied cognition and development; faculty and students explore the effects of human cognitive and developmental processes on education. They also determine how that knowledge can be applied to teaching and learning.

Dr. Julie Kittleson holds a Ph.D. in Science Education from the University of Delaware and currently serves as Associate Professor and Department Head of the Department of Educational Theory and Practice. She works in mathematics, science and social studies education and is an on-site instructor focused on professional development for teachers. She prepares future science teachers by combining an emphasis on the latest curriculum and teaching practice research, a study in an area of emphasis, and in-classroom experience. Her program aligns closely with national standards, including those from the National Science Teachers Association.

Amanda Marable currently serves as an Extension 4-H Specialist at UGA and works to translate science of everyday living for farmers, families and communities to foster a healthy and prosperous Georgia. For more than a century, the Georgia Cooperative Extension Service has provided research and education through a network of committed specialists, agents and volunteers to help Georgians learn, grow and do more.

Dr. Maria Navarro holds a Ph.D. in Agricultural Education from Texas A&M University. She has worked in international development and agricultural education in the U.S., Europe, Latin America, Africa, the Middle East, and Western Asia. She completed an undergraduate degree in agricultural engineering in 1992 and then worked in the International Center for Advanced Mediterranean Agronomic Studies (CIHEAM – IAMZ) until she moved to the US to complete her Ph.D. Since 2005 she has been on the faculty of the University of Georgia. In January 2018, she became the Associate Director of the UGA Honors Program and the Center for Undergraduate Research Opportunities (CURO).

Dr. Robert Pazdro holds a Ph.D. in Nutrition Science from Purdue University. His research group is working to improve the human experience by eliminating the burdens of chronic medical conditions, such as liver disease and heart failure. We focus on two risk factors long considered to be fixed and unmodifiable – genetics and age – and how they impact disease development, with emphases on metabolism, hormone activity, and organ structure and function.

Dr. Jason Peake holds a Ph.D. in Agricultural Education from TAMU. He is a professor of Agricultural Leadership, Education, and Communication and former Director of Academic Programs, UGA Tifton Campus. Dr. Peake has been recognized as Outstanding Agricultural Educator, Awarded by the *American Association for Agricultural Education Southern Region* 2014; Inductee (2012) National LEAD21 Forum; creator of CAES Teaching and Learning Symposium; UGA, Tifton Campus Outstanding Teaching (2012). He served as academic advisor and mentor for 150 undergraduate students; chair, advisor, or major professor for 25 graduate students. He has published in the areas of distance education, teaching methodologies, curriculum development, and technology integration.

Current Productivity Directly Related to EAE

Journal Articles

1. Peake, J., Rubenstein, E., & Byrd, B. (2020). Content topic development for elementary agricultural education curriculum. *The Journal of Agricultural Education* 61(3), 101-111. <https://doi.org/10.5032/jae.2020.03101>

Conference Posters

1. Byrd, B., Peake, J., Rubenstein, E. (2022). *A Non-Experimental Analysis of Agricultural Literacies in Georgia Elementary Agricultural Education*. Proceedings annual national conference of the American Association for Agricultural Education, Oklahoma City, OK.
2. Cheek, H., Anderson, C., & Peake, J. (2022). *Program evaluation of the Georgia agriculture experience (mobile classroom)*. Proceedings annual southern region conference of the American Association for Agricultural Education, New Orleans, LA.
3. Frederickson, J., Peake, J. (2022). *A Narrative Inquiry into the History and Current Scope of Farm to School in Georgia*. Proceedings annual national conference of the American Association for Agricultural Education, Oklahoma City, OK.
4. Peake, J. Rubenstein, E. Green, D., & Byrd, B. (2020). *Curriculum Development for Elementary Agricultural Education*. Proceedings annual southern region conference of the American Association for Agricultural Education, Louisville, KY.

Refereed Conference Papers

1. Frederickson, J., & Peake, J. (2022). *Cultivating Connections: Exploring Entry Points into Sustainable Food Systems*. Agriculture, Food, and Human Values Society (AFHVS) and the Association for the Study of Food and Society (ASFS) Conference, Athens, GA
2. Frederickson, J., & Peake, J., (2022). *Impact of Community-Based Service-Learning on Undergraduate Students' Self-Authorship*. Gulf-South Summit, Baton Rouge, LA moved online.
3. Frederickson, J., Bailey, H., Peake, J., Rubenstein, E., & Fuhrman, N. (2021). *Research and Discussion of a National Model for Elementary Agricultural Education*. Round Table Session Southern Region American Association for Agricultural Education Conference. Online

Invited Conference Presentations

1. Frederickson, J., Bailey, H., Peake, J. & Rubenstein, E. (2021). *Professional Development in Agricultural Literacy Related to Elementary Agricultural Education*. Roundtable Discussion. Southern Region AAAE Conference. Online.

2. Frederickson, J., Peake, J. & Rubenstein, E. (2021). *Advancements in Elementary Agricultural Education*. "Conference Hangout". Southern Region of American Association for Agricultural Education Conference. Online.
3. Frederickson, J., Bailey, H., Peake, J., Rubenstein, E., & Fuhrman, N. (2021). *Research and Discussion of a National Model for Elementary Agricultural Education*. Round Table Session Southern Region American Association for Agricultural Education Conference. Online
4. Peake, J. & Rubenstein, E. (2019). *Elementary agricultural education*. UGA, ADS/ALEC joint seminar series. Athens, GA.

Grants

1. Peake, J., Baucom, L., Kittleson, J., Marable, A., Fuhrman, N., & Rubenstein, E. (2021-2024). *Professional development for agricultural literacy in elementary agriculture teachers*. USDA: NIFA: Professional Development in Agricultural Literacy. Total Grant = \$300,000, principal investigator.
2. Calloway, T., Peake, J., Ryman, V., Bohlen, J. Turner, K., & Rubenstein E. (2020-2022). *Elementary school agricultural education in Georgia: opportunities to grow new dairy producers and educate consumers of the Southeastern US*. Georgia Dairyman's Association. \$7,950 17% to Peake. co-principal investigator.
3. Calloway, T., Peake, J., Turner, K., Rubenstein E. (2019-2021). *Elementary school agricultural education in Georgia: opportunities to grow new beef producers and consumers*. Georgia Beef Cattleman Association. \$5,000 25% to Peake. co-principal investigator.
4. Anderson, C., Peake, J., & Fuhrman, N. (2020, Fall). *Georgia Agricultural Experience – Program Evaluation*. College of Agricultural and Environmental Sciences Center Undergraduate Research Symposium. \$1000, January, 2020. principal investigator.

Milestones

1. Developed minor in Elementary Agricultural Education (2021)
2. Developed course AGED/EDUC 4361/6361 Methods of Elementary Agriscience (2021)
3. Elementary Agricultural Education Task Force (2018 - current) Task force for establishing Elementary Agricultural Education Certification standards for Georgia Professional Standards Commission

Operating Procedures and Policies

The initial members listed above as a whole will serve as the committee that oversees the center. This committee of the whole will adhere to Board of Regents (BOR) policies and procedures and all applicable UGA Vice President for Research policies. The Committee will meet at least two times annually. Director as Chair is responsible for establishing meeting, locations and preparation and communication of written agendas and minutes including names of attendees, copying the respective Department Heads.

A simple majority of the overall membership represents a quorum for voting purposes. If a quorum is not present, the Committee may meet to hear updates, 3-year plan, reports, and convene discussion, but no votes may be taken. A Quorum is necessary for vote by electronic means. If unable to attend meetings, committee members are to be replaced by Alternate or his or her Unit/Department Head.