



DEPARTMENT OF

# AGRICULTURAL SCIENCES EDUCATION AND COMMUNICATION



## Research Overview

ASEC faculty are experts in learning, communication and public engagement. Faculty conduct research to enhance the effectiveness of formal and informal education and communication programs. A major goal is building capacity to effectively teach lifelong learners across all socioeconomic contexts, improving the quality of life for youth and adults in Indiana and throughout the world. ASEC faculty have expertise in specialized fields such as science communication, career development, experiential learning, STEM integration and engagement of underserved populations. Our disciplinary bases span animal and plant science, education, educational psychology, communication and sociology.

## Research Areas

- PUBLIC ENGAGEMENT AND SCIENCE COMMUNICATION
- DECISION-MAKING AND RISK COMMUNICATION
- AGRICULTURAL EDUCATION
- PK-12 ENGAGEMENT
- TECHNOLOGY-MEDIATED TEACHING OF LIFE SCIENCE TOPICS
- EDUCATIONAL ACCESS AND EQUITY
- STEM CAREER DEVELOPMENT
- INTENTIONAL AND INCLUSIVE MENTORING
- TEACHING INTEGRATED STEM WITH FOOD AND AGRICULTURE AS A CONTEXT



*Hui-Hui Wang's research revolves around integrated STEM concepts and practices in K-12 formal and non-formal education programs using agriculture, food and natural resources as both content and context.*

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# Faculty Members and Area of Expertise

Julia Bello- Bravo, Assistant Professor  
mbellobr@purdue.edu

Effective communication and education using a systems approach towards understanding and solving the "last mile" problem of delivering science education across cultures, languages, literacy levels, technologies, and institutional networks.

Colleen Brady, Professor - Extension Education  
bradyc@purdue.edu

Informal science education; assessment of educational needs; development and implementation of effective electronic-based methods.

Natalie Carroll, Professor - Extension Education; 20% ABE  
ncarroll@purdue.edu

Informal learning and curriculum development for youth; experiential learning in environmental and natural resource topic areas.

Levon Esters, Professor - Higher Education  
lesters@purdue.edu

Educational access and equity of racial and ethnic minorities; mentoring of women and underrepresented minority graduate students; STEM career development of racial and ethnic minorities attending HBCUs; educational and professional mobility of women and underrepresented minority graduate students and faculty.

Neil Knobloch, Professor - Extension Education  
nknobloc@purdue.edu

Learner-centered teaching strategies; STEM education; interdisciplinary learning; PK-12 outreach and engagement; teacher and student motivation; mentoring and development of underrepresented minorities in agricultural STEM disciplines.

Sarah LaRose, Assistant Professor - Agricultural Education; 25% C&I  
slarose@purdue.edu

Strategies that agricultural educators and universities can implement to increase outcomes of skilled agricultural workers, innovators, and agriculturally literate citizens capable of engaging the public in conversations about controversial issues.

Pamala Morris, Professor/Associate Dean - Diversity Programs; 50% OMP  
pmorris@purdue.edu

Multicultural education; diversity awareness; intercultural effectiveness and communication; service learning methods.

Casey Mull, Clinical Associate Professor/4-H Program Director  
mullc@purdue.edu

Boundary spanning; higher education community partnerships; community engagement; engaged scholarship; positive youth development; program development; military youth and vulnerable populations, quantitative and survey design.

Linda Pfeiffer, Assistant Professor - Science Communication  
lpfeiff@purdue.edu

Science Communication (communicating science to non-scientists); Specializing in psychological factors that influence message perception/reception, risk perception and utilizing messaging to engage the public in science.

Mark Russell, Professor/Department Head - Engagement & International Education  
mrussell@purdue.edu

Engagement strategies to apply agricultural sciences; leadership development and intercultural effectiveness outcomes; experiential and service learning methods.

B. Allen Talbert, Professor - Agricultural Education; 25% C&I  
btalbert@purdue.edu

Agricultural teacher education; Underrepresented populations in agriculture and agricultural education; qualitative and mixed methods studies.

Roger Tormoehlen, Professor - Extension Education; 75% ABE  
torm@purdue.edu

Digital-based learning; engineering literacy; inquiry/challenge-based learning; agricultural health and safety; engineering education; international development; integrated STEM education.

Mark Tucker, Professor - Agricultural Communication  
matucker@purdue.edu

Public perception of emergent science and technology; communication strategies for contested science-based issues; audience analysis; sociology of higher education.

Hui-Hui Wang, Assistant Professor - Extension Education; 25% C&I  
huiwang@purdue.edu

Integrated STEM concepts and practices in K-12 formal and non-formal education programs using agriculture, food and natural resources as both content and contexts; research-based integrated STEM through AFNR teacher education, and curriculum and instruction design to engage K-12 students' scientific reasoning and knowledge application.