



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
- EXTENSION 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
- INTERNATIONAL ENGAGEMENT
- PROGRAM DEVELOPMENT AND EVALUATION



*Dr. 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.*



*Pictured at left from top: Dr. Sarah LaRose, Dr. Rama Radhakrishna, Dr. Mark Tucker, Dr. Neil Knobloch, and Dr. Mark Russell*

**RAMA RADHAKRISHNA**  
DEPARTMENT HEAD

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915 Mitch Daniels Blvd, West Lafayette, IN 47907  
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# Faculty Members and Areas of Expertise

**Julia Bello-Bravo**, *Assistant Professor*

[mbellobr@purdue.edu](mailto: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](mailto:bradyc@purdue.edu)

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

**Natalie Carroll**, *Professor - Extension*

*Education; ABE*

[ncarroll@purdue.edu](mailto:ncarroll@purdue.edu)

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

**Neil Knobloch**, *Professor - Ag+STEM Education*

[nknobloc@purdue.edu](mailto:nknobloc@purdue.edu)

Experiential learning; culturally relevant learner-centered teaching and mentoring strategies; integrated STEM education; food systems thinking; teacher and student motivation; K-20 engagement and career development of underrepresented minorities in agricultural STEM disciplines; assessment of outcomes and impact in K-12 and higher education.

**Sarah LaRose**, *Associate Professor -*

*Agricultural Education; C&I*

[slarose@purdue.edu](mailto: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; OMP*

[pmorris@purdue.edu](mailto: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](mailto: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**, *Associate Professor - Science*

*Communication*

[lpfeiff@purdue.edu](mailto: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.

**Rama Radhakrishna**, *Professor/Department*

*Head*

[rbradhak@purdue.edu](mailto:rbradhak@purdue.edu)

Program development and evaluation; quantitative research methods and data analysis; international agriculture development specializing in outcome and impact evaluations of programs in formal and non-formal settings.

**Mark Russell**, *Professor - Engagement and*

*Intercultural Leadership*

[mrussell@purdue.edu](mailto: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; C&I*

[btalbert@purdue.edu](mailto:btalbert@purdue.edu)

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

**Roger Tormoehlen**, *Professor - Extension*

*Education; ABE*

[torm@purdue.edu](mailto: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](mailto:matucker@purdue.edu)

Public acceptance of emergent science and technology; agricultural and risk communication; audience analysis; Indiana communities and rural life.

**Hui-Hui Wang**, *Associate Professor -*

*Extension Education; C&I*

[huiwang@purdue.edu](mailto: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.