

2016 NISBRE WORKSHOP INFORMATION

Name, title, institution, and email address of each facilitator

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Session theme or topic: This session will focus on strategies OBU has employed to expand our undergraduate research so that all of our students graduating with a biology degree participate in at least one authentic research experience. We have accomplished this through the use of Course-embedded Undergraduate Research Experiences (CURE labs). Projects employed throughout our four-year curriculum will be discussed, with emphasis given to ways that INBRE project leader research was adapted for a CURE.

Session format (lecture, facilitated discussion, panel discussion, Q&A): This session will be a blend of presentation, interactive discussion and Q&A.

Session title Expanding Undergraduate Research at PUIs

Provide 3 anticipated participant learning outcomes:

1. Undergraduate students and faculty will understand the basis and importance of CURE labs.
2. Undergraduate students and faculty will understand some best practices for CURE labs.
3. Undergraduate faculty will leave with ideas on how to initiate or expand course-embedded research experiences on their home campuses.

Intended audience (INBRE, COBRE, CTR, students, faculty, PI's): INBRE project leaders, faculty at primarily undergraduate institutions, faculty who teach undergraduate courses or labs, undergraduate students

Abstract (200 Words):

A major goal of the INBRE program is to provide research opportunities for undergraduate students and serve as a springboard for these students to continue in health research careers within IDeA states. At Ouachita Baptist University, the Biology Department is committed to providing all students with opportunities to participate in authentic research experiences that teach them to evaluate complex biology problems from a variety of perspectives; we believe students must do science to learn science. Although enrollment numbers in our department prevent every biology major from performing research in a one-on-one faculty-mentored experience, we offer each of our students the opportunity to complete a genuine research project through multiple course-embedded research experiences (CUREs) distributed throughout the four-year undergraduate curriculum. Assessment data from our CURE labs demonstrate that students participating in these labs show significant learning gains over non-CURE students in areas such as reading scientific literature, engaging in lab projects where the outcome is unknown, collecting and analyzing data, maintaining lab notebooks, working in small groups, presenting research, and critiquing scientific work of others. Using our program as a model, undergraduate students and faculty will work together in this session to design ways to expand research on their own campuses.

Additional Materials, Web Information or Additional Information: