Course-based Undergraduate Research Experience (CURE)

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**Intended Target Population**
- Undergraduate students majoring in biology or related fields
- Sophomore-level (and higher) students seeking hands-on research experience
- Students interested in pursuing careers or further studies in research, academia, or scientific fields

**Applicable Settings for Technique**
- Research laboratories within UTSA
- Collaborative research initiatives between faculty and students
- Extracurricular programs focused on undergraduate research experiences
- Professional development workshops or seminars for educators interested in implementing CUREs
- Summer research programs for undergraduate students

**Active Learning Technique Explanation/Learning Curve**
- **Initial Familiarization**: Goals, structure, and benefits of the CURE course
- **Pedagogical Training**: Professional development workshops or seminars on active learning pedagogies.
- **Curriculum Design**: Research goals, research topics and projects, and integrate assessment methods.
- **Mentorship and Support**: Establishing a network of mentors for collaboration and knowledge sharing.
- **Access to Research Facilities and Resources**: Access to laboratory facilities and specialized equipment.
- **Student Training and Support**: Develop instructional materials for research methods and laboratory techniques
- **Assessment and Evaluation**: Develop effective assessment strategies to evaluate student learning outcomes and the effectiveness of the CURE program.

**Student Learning Outcome Satisfied**
- Research Skills Development
- Critical Thinking and Problem-Solving
- Communication Skills
- Collaboration and Teamwork
- Career Exploration and Preparation
- Content Knowledge Acquisition
- Ethical Conduct in Research

**Student Benefits and Impact**
- Gain practical research skills through hands-on experience
- Learn about current topics in biology directly from faculty experts
- Earn course credit while conducting authentic research
- Explore and refine career interests via exposure to different research areas
- Develop critical thinking, problem-solving, and communication skills essential for success in academia and scientific professions