



B.S. DEGREE IN TECHNOLOGY AND ENGINEERING EDUCATION

PROGRAM MISSION

The Technology and Engineering Education (TEE) program equips future educators with the technical knowledge and problem-solving skills needed to foster technological and engineering literacy among ALL students. Through hands-on, creative learning experiences, students will develop expertise in applying technological and engineering literacy concepts in a wide range of contexts, such as: engineering, design, manufacturing, communication, electronics, computational thinking and robotics, transportation and logistics, biomedical, agriculture, the built environment, and other emerging technological fields.

PROGRAM GOALS

The TEE program aims to prepare educators and leaders in TEE. Graduates will qualify for licensure to teach TEE at the middle school and high school levels. Emphasis is placed on improving teaching and learning practices while promoting and developing technological and engineering literacy (the ability to use, manage, understand, and assess a broad range of technologies and systems). Through a curriculum integrating technical content knowledge with effective pedagogical strategies, students will gain skills needed to support engaging classroom and laboratory learning experiences. A core goal of this program is to enhance the technological and engineering literacy of ALL secondary level students.

PROGRAM OBJECTIVES

1. To allow students to build upon the content knowledge they have acquired in their technical coursework, adding the professional knowledge necessary for a career in teaching TEE.
2. To prepare TEEs who are well-grounded in research, theory, and practice related to effective classroom instruction and school improvements.
3. To enable teacher interns to develop and demonstrate sensitivity and effective interpersonal skills in working with students of all backgrounds and abilities.
4. To nurture educators who are committed, continuous learners, and contributors to the enhancement of the teaching profession.
5. Organize and manage students, materials, and equipment for designing technological and engineering solutions through classroom and laboratory instructional experiences.
6. Demonstrate effective communication of instructional and technical ideas by means of verbal, written, graphical, and other technologically appropriate modalities.
7. Scaffold students in identifying, developing, troubleshooting, and maintaining technological and engineering systems to extend human needs and capabilities.
8. Plan and implement instructional programs to meet the emerging needs and interests of students.
9. Plan and deliver TEE programs that promote technological and engineering literacy, problem-solving, and safety through the integration of reading, writing, mathematics, science, and other core subjects.
10. Enhance professional and technical practices of TEE through engagement in coursework, continuing education, professional development, and community outreach opportunities.
11. Demonstrate humanistic values that promote active participation as technologically responsible and productive citizens.