

TED-Technology Education

TED100 - Introduction to Technology Education

This course initiates the professional development of each technology education student. Activities will afford each student the opportunity to become well grounded in the philosophy, theory and practice of technology education curriculum and pedagogy. Following extensive modeling activities within a campus-based classroom/laboratory environment, all students will participate in similar activities at selected K-12 schools for 15 hours of field experience.

TED126 - Engineering Materials and Product Design

This laboratory-based course is an introduction to material properties and product design. Design engineering requires knowledge of the selection, properties, uses and impacts of materials choices, and processing methods. A process of research, design, creation, use and assessment of products will be used. The lab activities of the course will focus on the safe and efficient processing of polymer materials.

TED210 - Design and Appropriate Technology

This course focuses on developing a basic understanding of design and appropriate technology. Students engage in design and problem-solving activities to develop, produce, test and analyze technological systems while assessing the multiple interactions between such systems and their impacts on societies, values, economics, environments and basic human needs.

TED211 - Design and Sustainable Technology

This course focuses on developing a basic understanding of design and appropriate technology. Students engage in design and problem-solving activities to develop, produce, test and analyze technological systems

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while assessing the multiple interactions between such systems and their impacts on peoples' societies, values, economies, environments, and basic human needs.

TED300 - Assessment & Instruction in Technology Education

To address the standards, it is critical that technology education students be able to instruct and assess student learning in a standards-based environment. This course will enable students to explore and develop instructional methodologies and assess student learning in both a traditional and authentic sense. Students will also be introduced to a variety of classroom management and discipline issues that classroom teachers face each day. All students will participate in instructional activities at a selected middle school for 15 hours of field experience.

TED304 - Design in Bio-related Technology

This course provides a broad overview of bio-related technologies as it relates to technology education. Students will study these systems from historical, current and potential future applications of bio-related technologies in a broad spectrum of industries/agencies. Students will participate in various laboratory and research activities as they identify and analyze bio-related products, services and processes. They will work individually and in groups to design, test, analyze and evaluate bio-related processes and products.

TED316 - Structural Design

Students will develop a basic understanding of the design and behavior of structures. Through laboratory activities, students will learn how structures are designed; why certain materials are used; how structures withstand loads; and the impacts of structures on societal, biological and technological systems.

TED335 - Transportation Systems

This course focuses on developing a basic understanding of the behavior of land, water, air and space transportation systems. Students engage in problem-solving activities to design, produce, test and analyze transportation systems while studying the technical subsystems of propulsion, structure, suspension, guidance, control and support.

TED426 - Manufacturing Enterprises

The class begins with an introduction to manufacturing technology, technical systems, and the historical evolution of manufacturing. Students will examine the organization and management of manufacturing endeavors. The class culminates in the design and production of a product in a manufacturing enterprise situation which closely parallels the functions of a manufacturing corporation.

TED435 - STEM Senior Project Proposal

This senior course provides the student with an opportunity to integrate several concepts of different STEM areas and it allows him/her to pursue specialized interests. The student will submit a written proposal for a project. After approval of the project, the student will be assigned a faculty advisor and select complement faculty members for area support. Minimum requirements for the proposal are submission of a functional specification and time schedule for completion.

TED436 - Engineering Design and Development

This course provides individual and/or small groups of students within a laboratory class the opportunity to conduct a focused investigation of a particular technological system or subsystem. The nature of this investigation requires direct contact by the student with corporate, university and governmental libraries, laboratories and associations. The scope of the research and development problem could relate to local, national or international topics. The time frame of the research could be historical, contemporary or futuristic. Each student and/or group

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is required to design, build, operate and analyze some type of technological model, prototype or simulation that demonstrates with precision the essence of the research problem. Portfolio documentation of the progress of the research and development problem is required.

TED450 - Teaching Technology in the Secondary School

Students will use their technical skills and knowledge in the area of communication, transportation, manufacturing, construction, bio-related technologies and develop curriculum plans, design laboratories, and instructional activities appropriate for teaching technology in the secondary school. In addition, enhancing technical skills, teaching techniques, program assessment, and evaluating student learning will be emphasized along with safety, liability, school law and the integration of math, science, technology, and social science in learning activities.

TED451 - Teaching Technology in the Elementary School

This course is designed for students who are technology education majors. It is designed to offer each student the opportunity to design and build teaching/learning activities that integrate concepts related to mathematics, science, communication and social science with technology.

TED461 - Technology Education Student Teaching

Student teaching is the culminating experience for technology education majors. The student teacher is assigned to and works under two different master teachers at two different field locations during the semester. The development and refinement of contemporary pedagogical skills constitute the primary learning purpose for the student teacher. Specific skills that are developed are lesson planning, laboratory management, safety practices, record keeping, classroom management and educational measurement and evaluation. An integral component of the student teaching experience is a regularly scheduled practicum. This serves as a means of coordinating activities and interchanging ideas and experiences of student teachers.