Bioengineering Undergraduate Major:

1. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

Environmental Engineering Undergraduate Major:

1. ENVE graduates will be adept at applying critical thinking, problem solving, engineering principles and reasoning, the scientific method, and teamwork to solve environmental resource problems and to restore and sustain the global environment.

2. An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.

Earth Systems Science (Environmental Science and Sustainability Major):

1. Communicate to diverse stakeholders the major concepts and principles of Environmental Science and Sustainability, such as how elements of the Earth system are interconnected, the carrying capacity of natural systems, and how governmental policy and economics can both perpetuate and solve environmental problems.

2. An ability to employ critical thinking, quantitative and numerical analyses, and hypothesis-driven methods of scientific inquiry in the formulation of research questions, experimental design, application and use of laboratory and field instrumentation, and analysis and interpretation of data related to Earth systems.

Materials Science and Engineering Major

1. An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.

Mechanical Engineering Major

1. Practice mechanical engineering to innovate with respect to thermal/fluid systems, mechanical systems and design, and sustainable energy systems in public and private enterprises.

2. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.