

2026 USEF Categories

Behavioral & Social Sciences

Science or study of the thought processes and behavior of humans and other animals in their interactions with the environment studied through observational and experimental methods.

Biology, Microbiology, & Genetics

Studies the structure, function, intracellular pathways, and formation of cells. Studies involve understanding life and cellular processes specifically at the molecular level. Study of microorganisms, including bacteria, viruses, fungi, prokaryotes, and simple eukaryotes. **Studies focusing on the structure and function of genes, genetic variation, and heredity in living cells.**

Biomedical Engineering & Health Technologies

Studies involving the application of engineering principles to the fields of biology and medicine. Includes design and development of medical devices, diagnostics, and drugs, including antimicrobial and antibiotic substances. Includes cellular and tissue engineering and cell therapy systems.

Chemistry & Biochemistry

Studies exploring the science of the composition, structure, properties, and reactions of matter; includes both chemical and biochemical systems. Study of chemical basis of processes occurring in living organisms, including the processes by which these substances enter into, or are formed in, the organisms and react with each other and the environment.

Civil & Energy Engineering

Studies that focus on the science and engineering that involve structure. Includes the planning, designing, construction, and maintenance of structures and public works, such as bridges or dams, roads, water supply, sewer, flood control, and traffic. **Studies involving renewable energy sources & processes, clean transport, and alternative fuels. Includes alternative fuels, computational energy science, fossil fuel energy, fuel cells and battery development, microbial fuel cells, hydro power, nuclear power, solar power, sustainable design, thermal power, wind.**

Computer Science & Applied Computational Methods

Studies involving algorithms and databases, software development, computer simulations, and computer graphics. Includes the development and application of data-analytical and theoretical methods, mathematical modeling and computational simulation techniques to the study of various systems, such as biological, behavior and social, weather, etc.

Environmental Sciences/Engineering

Studies of the environment and its effect on organisms/systems, including investigations of biological processes such as growth and life span, as well as studies of Earth systems and their evolution. Includes atmospheric science, climate science, environmental effects on ecosystems, geosciences, and water science. Studies that engineer or develop processes and infrastructure to solve environmental problems in the supply of water, the disposal of waste, or the control of pollution.

Electrical & Computer Engineering

Studies involving the technology of electricity, especially the design and application of circuitry and equipment for power generation and distribution, machine control, and communications. Includes design and development of computer hardware.

Mechanical & Materials Engineering

Studies that focus on the science and engineering that involve movement. The movement can be by the apparatus or the movement can affect the apparatus. Includes aerospace and aeronautical engineering, computational mechanics, control theory, ground vehicle systems, industrial engineering-processing, mechanical engineering, naval systems. Study of the characteristics and uses of various materials with improvements to their design, which may add to their advanced engineering performance.

Medicine & Health Sciences

Studies specifically designed to address issues of human or animal health and disease. It includes studies on the diagnosis, treatment, prevention or epidemiology of disease and other damage to the human or animal body or mental systems. Includes studies of normal functioning and may investigate internal as well as external factors such as feedback mechanisms, stress or environmental impact on human or animal health and disease.

Physics, Astronomy & Math

The science of matter and energy and of interactions between the two. The study of anything in the universe beyond the Earth. Study of the measurement, properties, and relationships of quantities and sets, using numbers and symbols. The deductive study of numbers, geometry, and various abstract constructs, or structures.