



Project Categories for MSEF

0100 - Behavioral & Social Science - The 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.

0200 – Biochemistry - The study of the 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. (Analytical, Medicinal, Structural, General)

0300 - Inorganic Chemistry - The study of the properties and reactions of inorganic and organometallic compounds. Studies exploring the science of the composition, structure, properties, and reactions of matter not involving biochemical systems or carbon.

0400 - Organic Chemistry - The study of carbon-containing compounds, including hydrocarbons and their derivatives. Studies exploring the science of the composition, structure, properties, and reactions of matter not involving biochemical systems.

0500 - Earth and Environmental Science - 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. (Atmospheric science, climate science, environmental effects on ecosystems, geosciences, water science)

0600 - Animal Sciences - This category includes all aspects of animals and animal life, animal life cycles, and animal interactions with one another or with their environment. Examples of investigations included in this category would involve the study of the structure, physiology, development, and classification of animals, animal ecology, animal husbandry, entomology, ichthyology, ornithology, and herpetology, as well as the study of animals at the cellular and molecular level which would include cytology, histology, and cellular physiology. (Animal Behavior, Cellular studies, development, ecology, genetics, nutrition and growth, physiology, systematics and evolution)

0700 - Biomedical and Health Sciences - This category focuses on studies specifically designed to address issues of human health and disease. It includes studies on the diagnosis, treatment, prevention or epidemiology of disease and other damage to the human 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 health and disease. (cell, organ, and systems physiology, genetics and molecular biology of disease, immunology, nutrition and natural products, pathophysiology)

0800 – Microbiology - The study of micro-organisms, including bacteria, viruses, fungi, prokaryotes, and simple eukaryotes as well as antimicrobial and antibiotic substances. (Antimicrobial and antibiotics, applied microbiology, bacteriology, environmental microbiology, microbial genetics, virology)

0900 - Physics and Astronomy - Physics is the science of matter and energy and of interactions between the two. Astronomy is the study of anything in the universe beyond the Earth. (atomic, molecular and optical physics, astronomy and cosmology, biological physics, computational physics and astrophysics, condensed matter and materials, instrumentation, magnetics, electromagnetics and plasmas, mechanics, nuclear and particle physics, optics, lasers, and masers, quantum computation and theoretical physics)

1000 - Engineering Mechanics - Studies that focus on the science and engineering that involve movement or structure. The movement can be by the apparatus or the movement can affect the apparatus. (Aerospace and Aeronautical Engineering, civil engineering, computational mechanics, control theory, ground vehicle systems, industrial engineering-processing, mechanical engineering, naval systems)

1100 - Mathematics and Systems Software - The study or development of software, information processes or methodologies to demonstrate, analyze, or control a process/solution. The 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. (Algorithms, cybersecurity, databases, human/machine interface, languages and operating systems, mobile apps, online learning, algebra, analysis, combinatorics, graph theory, game theory, geometry and topology, number theory, probability and statistics)

1200 - Robotics and Intelligent Machines - Studies in which the use of machine intelligence is paramount to reducing the reliance on human intervention. (Biomechanics, cognitive systems, control theory, machine learning, robot kinematics)

1300 - Plant Sciences - Studies of plants and how they live, including structure, physiology, development, and classification. Includes plant cultivation, development, ecology, genetics and plant breeding, pathology, physiology, systematics and evolution. (agriculture and agronomy, ecology, genetics and breeding, growth and development, pathology, plant physiology, systematics and evolution)