# Table of Contents

# LIFE SCIENCES

- Life sciences
  - Anatomy – study of form and function, in plants, animals, and other organisms, or specifically in humans
  - Bacteriology – study of bacteria
  - Biochemistry – study of the chemical reactions required for life to exist and function, usually a focus on the cellular level
  - Biomechanics – the study of the mechanics of living beings
  - Biophysics – study of biological processes by applying the theories and methods that have been traditionally used in the physical sciences
  - Genetics – the study of genes and heredity
  - Histology – the study of tissues
  - Immunology – the study of the immune system
  - Developmental biology – the study of the processes through which an organism forms, from zygote to full structure
  - Cell biology (cytology) – study of the cell as a complete unit, and the molecular and chemical interactions that occur within a living cell
  - Ethology – study of behavior
  - Enzymology – study of enzymes
  - Microbiology – the study of microscopic organisms (microorganisms) and their interactions with other living organisms
  - Mycology – the study of fungi
  - Neuroscience – the study of the nervous system
  - Parasitology – the study of parasites, their hosts, and the relationship between them.
  - Pathology – the study of the causes and effects of disease or injury
  - Pharmacology – the study of drug action
  - Physiology – the study of the functioning of living organisms and the organs and parts of living organisms
  - Quantum biology – the study of quantum phenomena in organisms
  - Structural biology – a branch of molecular biology, biochemistry, and biophysics concerned with the molecular structure of biological macro-molecules
  - Synthetic biology – the design and construction of new biological entities such as enzymes, genetic circuits and cells, or the redesign of existing biological systems
  - Systems biology – the study of the integration and dependencies of various components within a biological system, with particular focus upon the role of metabolic pathways and cell-signaling strategies in physiology
  - Theoretical biology – the use of abstractions and mathematical models to study biological phenomena
  - Toxicology – the nature, effects, and detection of poisons
  - Virology – the study of viruses like submicroscopic, parasitic particles of genetic material contained in a protein coat – and virus-like agents
  - Zoology – the study of animals

## APPLIED LIFE SCIENCES

- surgery
- radiology