**Biology Education**

Biology is the study of all living things. In fact, the word "biology" comes from the Greek words bios which means "life" and logos which means "study." In short, it's the study of all living things. Biologists study the distribution, evolution, function, growth, origin, structure, and taxonomy of species. We're able to understand how our bodies work, how organisms work, how our cells work. It's the science that tells us everything about what we are.

As you may have guessed, biology is a large area of study. It's so broad that there are entire branches of science within biology. Fields like genetics, agriculture, ecology, virology, and even paleontology are all under this umbrella because they all revolve around the same basic principles of biology.

Why Is Biology Important? By studying biology, we're able to learn more about ourselves, plants, animals, and much of the world around us. We're also able to learn about diseases, treatments, and vaccines. With advancements in biological sciences, we're living life much more comfortably than people a hundred years ago.

We're able to tap into our knowledge about different plants and animals we use for food. With biology, we can learn more about the metabolic processes that help us get energy from our food. Biology helps us understand plants to be used for medicinal purposes and how our bodies react to them.

We're able to learn about human behavior and how we react to each other. With ecology, we can study how we interact with the non-living world around us. With ecology, we're constantly learning how animals use various materials around them and even how they adapt to a changing environment.

Biology is a large and diverse field, so most biologists focus on a specific branch of biology in their studies. Biologists in various fields have shaped the world with their discoveries. Many vaccines have been developed by studying diseases (pathology, a branch of biology, is the study of diseases.) For example, a vaccine for Smallpox, a disease that has been wreaking havoc since around 10,000 BC (and responsible for an astounding 300,000,000+ deaths during the 20th century alone), was developed putting an end to all naturally occurring cases in 1977.

There are many universities with strong biology programs. There is no "best" college to study biology. If you are considering a biology degree, search for a school that fits your needs, budget, and lifestyle. Large research universities offer broad course work, a variety of specialized concentrations, and many opportunities for independent research. However, there is often strong competition for such opportunities at these institutions, as well as larger class/lab sizes with less individualized attention. Smaller colleges allow for small class sizes, individualized instruction, and frequent interaction with professors. At the same time, smaller schools may have less diverse course offerings and fewer opportunities for financially supported research. In general, there are several key elements that make up a solid biology program at a college or university:

Faculty diversity and experience

Most faculty members hold PhD degrees and have active, productive research programs, or are connected to research programs at a nearby institution.

The faculty is an accurate representation of the diversity of biological disciplines: botanists, evolutionary biologists, zoologists, biochemists, cell biologists, ecologists, physiologists, taxonomists, and so on. Either the biology program contains faculty members in diverse fields, or the university has several individual departments that complement each other.

Commitment to undergraduate education

Courses are taught by faculty members, not graduate students.

The institution has an active faculty advisor program and an active career advising/career development program.

The curriculum includes a variety of courses that provide a strong background in the natural and social sciences, humanities, and writing, while still allowing students to pursue their individual interests.

Well-equipped libraries with Internet access to biology journals, and easily accessible computer labs for student use.

Research opportunities for undergraduates

Faculty welcome students into their research groups as part-time workers, interns, and research assistants.

Opportunities are available for undergraduates to pursue independent research projects.

There are programs and centers that suit a student's particular interest; for example, a field station to study ecology, a state-of-the-art genetics lab, or a marine station to study marine biology.