**BIOTECHNOLOGY**

**WHAT IS BIOTECHNOLOGY?**

**Biotechnology**, the use of biology to solve problems and make useful products. The most prominent area of biotechnology is the production of therapeutic proteins and other drugs through genetic engineering.

The fact that living organisms have evolved such an enormous spectrum of biological capabilities means that by choosing appropriate organisms it is possible to obtain a wide variety of substances, many of which are useful to man as food, fuel and medicines. Over the past 30 years, biologists have increasingly applied the methods of physics, chemistry and mathematics in order to gain precise knowledge, at the molecular level, of how living cells make these substances.

Today, biotechnology covers many different disciplines (e.g., genetics, biochemistry, molecular biology, etc.). New technologies and products are developed every year within the areas of e.g., medicine (development of new medicines and therapies), agriculture (development of genetically modified plants, biofuels, biological treatment) or industrial biotechnology (production of chemicals, paper, textiles and food).

* Once you are done with secondary school, it’s time to move into a decent college and get a bachelor’s degree in biology. A most entry-level position in Biotechnology requires a bachelor’s degree.
* Biotechnologists may work independently or as part of a team to create new technology intended to address problems their industry faces.
* Biotechnology involves a lot of collecting, studying and testing samples such as food, cells, tissues, blood samples, bacteria cultures and living organisms.
* Getting an internship after graduation can be the best way to get an overview of how your job would be afterward. You can do an internship in your college time itself; it provides students an opportunity to understand what field of Biotechnology they are into, what interests them the most.

**Career opportunities**

* Pursuing a career in biotechnology involves being in one of the most innovative fields available. People who work with biotechnology make it possible to develop scientific advances in genetics, biochemistry, biology, agriculture, environmental protection, medicine and other critical fields.

**Different career paths**

* Clinical technician
* Chemical operator
* Biomedical equipment technician
* Microbiologist
* DNA analyst
* Pharmaceutical manufacturer
* Biomedical engineer
* Epidemiologists

**Expected Earnings As At 2022**

* Biotechnologists who pursue a master's or graduate certificate can usually find work as epidemiologists ($70,990), medical scientists ($88,790), and biochemists or biophysicists ($94,490). The projected growth rates for these positions between 2018 and 2028 are 5%, 6%, and 8%, respectively.