

# The Biology of Biotech

85-MINUTE ONLINE COURSE | LEVEL 1 | PREREQUISITES: NONE

## OVERVIEW

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**The Biology of Biotech** provides an overview of the most important biological molecules and systems used in biotechnology to make novel therapies and diagnostics. The Biology of Biotech online course lays the groundwork for the biopharma industry by focusing on cells, DNA and proteins and how these are manipulated by researchers to discover new products. If you are a non-scientist who wants to better understand the science driving research and discovery, this course is the perfect place to start.

### Five Takeaways:

1. Knowledge of cell structure functions and how those functions are manipulated by scientists to develop new products.
2. Understanding of protein synthesis and how this cellular process is optimized to create therapeutics.
3. Correlation between genetic mutations and disease.
4. Fluency in genetic variation and its role in disease diagnosis and treatment.
5. Exploration of significantly important molecules and their role in health and disease.

## AGENDA

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- **The Cell: The Biotech Advantage** demonstrates how biotechnology takes advantage of processes that already exist in the human body to create new products.
- **DNA and Proteins: The Biotech Workhorses** correlates the relationship between DNA and proteins, and how the cellular process of protein synthesis is used to create medicines.
- **Genetic Variation: Understanding Disease** explains how mutations lead to genetic variation which sometimes triggers disease. Knowledge of genetic variation is the first step to improving disease diagnosis and treatment.