Course Outcomes (CO's)

B.Sc Biotechnology First Year		
Sr. No.	**Course**	**Course Outcomes**
1	**Physical Chemistry**	**CO1 :** Equip the students to get an idea on the Physical Chemistry terminology. **CO2:** Make the students to understand the concept of atom, molecules and their chemical bondings and thermodynamics within them. **CO3 :** Familiarize the students with the theoretical and practical aspects of Physical chemistry. **CO4 :**Familiarize the students about the application and importance of Thermodynamics laws and its chemistry.
2	**Organic and Inorganic Chemistry**	**CO1:** To understand the different methods of preparation ,reaction, and rules about Alkanes, Alkenes, Alkyl and Aryl Halides. **CO2:** To understand the Modern Periodic Table and its concepts. **CO3:** Familiarize the students with the theoretical and practical aspects of Organic and Inorganic chemistry.
3	**Microbiology**	**CO1 :** Familiarize the students with the knowledge about different microgranisms around us and its biological concepts. **CO2:** Technical skills among the students for identifying difference between different microbes and its use in industrial and research areas.
4	**Biotechniques**	**CO1:** To make students familiar with instruments and their operating systems.

		CO2: Enable the students to manage the practical activities with the help of Biotechniques. **CO3 :** Develop skills to analyze data using biotechniques instruments at research level.
5	**Biomolecules**	**CO1:** To develop awareness about biochemistry and its applications and importance among the students. **CO2:** Students will be able to know the parameters about the essencial molecules which are needed by each and every living organism .
6	**Biostatistics**	**CO1:** Make the students familiarize with corporate statistical concepts to present their data of information.

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Sr. No.	Course	Course Outcomes
1	**Immunology**	**CO1:** Equipe the students to get an idea about Immunology.p **CO2:** To make aware the students about the types of immunity and its cellular concepts at molecular level for making use of advance knowledge in research. **CO3:** To impart knowledge about holding immunotechniques and its use at medical level..
2	**Enzymology**	**CO1:** To understand basic concepts, elements and reactions of enzymes in nature. **CO2:** To understand fundamentals of enzyme kinetics and its application.
3	**Developmental Biology**	**CO1:** Familiarize the concepts of Developmental Biology. **CO2:** Students are able to understand the Life Cycle of living organism.
4	**Central Dogma**	**CO1:** Familiarize the students with the basic principles of Central Dogma. **CO2:** Acquaint students with the knowledge about transcription, translation and replication of living organism.
5	**Genetics**	**CO1:** Provide complete knowledge of Genetics. **CO2:** Familiarize the students with the mechanism of genetics at molecular level. **CO3:** By learning the basic methods of genetics they can easily switch over to any research in life science.

B.Sc Biotechnology Third Year

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1	**Bioinformatics**	**CO1:** To provide knowledge to solve biological problems at computational level. **CO2:** To understand the basic concept of mentating the data using different databases of bioinformatics. **CO3:** It will help students to predict the new biological information using previous data store.
2	**Plant Tissue Culture**	**CO1:** Familiarize the students with the basic principles of Tissue culturing**.**
3	**Principles of Genetic Engineering**	**CO1:** Students will be perfect in the fundamental concepts of Genetic engineering. **CO2:** By learning the basic methodsthey can easily switch over to any research in life science.
4	**Ecology and Evolution**	**CO1:** To make students familiar with social environment. **CO2:** To develop the awareness among the students regarding the laws of Ecology and Evolution and its role in environment.
5	**Bioethics**	**CO1:** Provide theoretical knowledge about the relation between Biotechnology and Bioethics. **CO2**: Equip the students to understand various factors about bioethics and its compact on society. **CO3**: Develop skills of biosafety at laboratoray level.
6	**Project**	**CO1:** Students will gain complete knowledge about research area. **CO2**:Students will be confident about their work.