

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

भारतीय प्रौद्योगिकी संस्थान तिरुपति

1.	Title of the course	Life Sciences
2.	Course number	ES203L
3.	Structure of credits	2-0-0-2
4.	Offered to	UG
5.	New course/modification to	Modification To BS2101/9
6.	To be offered by	Academics
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	Course Objective(s): To provide suitable exposure to the fundamentals in biology in a manner that interests the students, so that they would not be scared of biology, but refresh/update their knowledge and apply it effectively when needed later in life.	
10.	Course Content: Why do engineers need biology? Fundamental functional unit of life; Origin of life; Evolution; Fundamental molecules of life – lipids, carbohydrates, proteins, nucleic acids – and their relevance to the cell, the human body, and bio-products; DNA replication; Cell replication; Transcription and Translation; Mendelian genetics as a useful tool; Coordinated function of cells and homeostasis in the human system.	
11.	Textbook(s): 1. Suraishkumar G K, <i>Biology for Engineers</i> , Oxford University Press (2019).	
12.	Reference(s): 1. Campbell N A, Urry L A,Cain M L,Wasserman S A, Minorsky P V and Reece J B, <i>Biology: A Global Approach</i> , 10th Edition, Pearson's (2017). 2. Karp G, <i>Cell and Molecular Biology: Concepts and Experiments</i> , 7th Edition, Wiley (2013).	