Semester	JAN 2022
Open to semester	8,12,14,22
Course code	**BIO463/BI6454**
Course title	**Biology and Disease**
Credits	4 /4
Course Coordinator & participating faculty (if any)	Mayurika Lahiri*, Siddhesh S Kamat
Nature of Course	Lectures
Pre-requisites	(i) Advanced Molecular Biology and (ii) Advanced Cell Biology
Objectives (goals, type of students for whom useful, outcome etc)	Objectives: 1) Integrate the biology (cell, molecular and physiology) taught so far, 2) Develop insights into biology revealed by the disease condition, and, 3) Teach technology development and translation prompted by the disease condition. Neurodegenerative disorders, metabolic disorders, infectious diseases and cancer are some of the modules that will be used as disease/disorder models. Open in sem - BS-MS 8th semester, open to iPhD and PhD Outcomes: Students will have a good in-depth knowledge about the biology behind the various diseases that will be discussed.
Course contents (details of topics /sections with no. of lectures for each)	1 The Nature and Investigation of Diseases (2) 2 Neurodegenerative Disorders (5) 3 Infectious diseases/ Bacteriology/Virology (8) 4 Metabolic diseases (8) 5 Genetic/Epigenetic Disorders (4) 6 Cancer (10) 8 Group / Paper / Case Study Discussions (5)
Evaluation /assessment	End-Sem Examination-40% Mid-Sem Examination-40% Others-20%
Suggested readings (with full list of authors, publisher, year, edn etc.)	1. Biology of Disease by Nessar Ahmed, Maureen Dawson, Chris Smith and Ed Wood; Taylor & Francis; 1 edition (December 13, 2006). 2. One Renegade Cell: The Quest For The Origin Of Cancer (Science Masters) by Robert A. Weinberg; Basic Books; 1

	edition (October 7, 1999). 3. The Biology of Cancer by Robert Weinberg; Garland Science; 1 edition (June 7, 2006). 4. The Biology Of Disease by Murray, Jonathan and Kirk; Wiley-blackwell; 2 edition [May 2001]