

GUJARAT TECHNOLOGICAL UNIVERSITY
Biomedical Engineering
M.E. Semester: II

Subject Name: **Bionanotechnology (Major Elective-II)**

Sr. No.	Course Content
1.	Nanotechnology and Bionano Technology
2.	Significance of Nano Domain
3.	Physics for BioNano Technology
4.	Properties at Nano Scale
5.	Structural and Functional Principle of BioNano Technology
6.	Transport Phenomenon at Nano Scale
7.	BioNano Materials
8.	Biomolecular Design
9.	Sensors at Nano Scale
10.	Nano Drug Delivery
11.	Nano BioImaging
12.	BioNano Robots

Reference Books:

1. Bionanotechnology
-Elisabeth S. Papazoglou, Aravind Parthasarathy
Morgan & Claypool Publishers, 2007
2. Bionanotechnology: proteins to nanodevices
-Vencatesan Renugopalakrishnan, Randolph V. Lewis
Springer ,2009
3. Bionanotechnology : lessons from nature
-David S. Goodsell
Wiley-Liss, 2004
4. Bionanotechnology
-Maheshwar Sharon, Madhuri
Sharon Taylor & Francis, 2010