



Department of Biotechnology		LP: BY22104
B.E/B.Tech/M.E/M.Tech : M. Tech Biotechnology	Regulation: 2022	Rev. No: 00
PG Specialisation : Biotechnology		Date:
Sub. Code / Sub. Name : BY22104/ Scaffold Designing and 3D Bioprinting		09.11.2022
Unit : I		

Unit I: Introduction to 3D Bioprinting

5

Introduction to 3D Bioprinting, Understanding different types of bioprinting: Extrusion based, Inkjet based and laser assisted bioprinting

Objective: To introduce the concepts of bioprinting and its types.

Session No *	Topics to be covered	Ref	Teaching Aids
1	Introduction and history of 3D Bioprinting	T1 (1-25)	BB/PPT
2	The importance of Industry 4.0 and additive manufacturing in 3D printing	T1 (30-35)	BB/PPT
3	Understanding different types of bioprinting and its application in interdisciplinary aspects	T1 (124-160)	BB/PPT
4	Principle and application of Extrusion based, Inkjet based, and laser assisted bioprinting	T1 (124-160)	BB/PPT
5	Principle and application of Extrusion based, Inkjet based, and laser assisted bioprinting	T1 (124-160)	BB/PPT
Content beyond syllabus covered (if any): Bridging additive manufacturing and 3D printing			

* Session duration: 50 minutes

