Programme					GA	NPATUNIVE	ERSITY						
Semester V			F	ACUL	TY OF E	NGINEERIN	G& TECHNO	OLO	GY				
Semester V	Program		Bach	elor of Tech	Branch/Spec.								
Effective from Academic Year 2024-25 Effective for the Batch admitted in July 2022	Ŭ.									8			
Course Code ZBM51PE03 Course Name Clinical Engineering & Patient Safety			cademic `	Year		2024-25							
Teaching Scheme				_	51PE03								
Per Lecture(DT) Practical(Lab.) Total CE SEE Total			e		211 200					<i>y</i>			
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Credit 3		L	TU	P	TW								
Hours 3	Credit		-		-	3	Theory	40	60	1(00		
Pre-requisites		_			_		· ·	-	-		-		
Understanding of healthcare systems, and familiarity with medical technology and regulatory standards.													
Course Outcomes			f healthca	re exeter	ns and fami	liarity with medic	al technology ar	nd rea	ulatory standards	,			
On successful completion the course, the students will be able to: CO1 Remember key concepts in clinical engineering and patient safety, including regulatory standards and guidelines relevant to medical device management. CO2 Understand the integration of patient safety principles into clinical engineering practices within healthcare systems. CO3 Apply knowledge to assess and maintain the proper functionality of medical devices, ensuring compliance with safety standards. CO4 Explain potential risks associated with medical devices, hazards and case studies. Theory Syllabus				ic system	iis, and raini	marity with mearc	ar teermology ar	iu icg	diatory standards	· ·			
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	Future directions in clinical engineering, Potential impact of emerging technologies on patient care.							
Practical	l content							
NA								
Text Bo	oks							
1	Clinical Engineering Handbook by Joseph F. Dayro Pub.: Elsevier Academic Press							
2	Patient Safety and Quality: An Evidence-Based Handbook for Nurses by Ronda Hughes Pub.: AHRQ							
	Publication							
Referen	ce Books							
1	Radiation Oncology Physics: A Handbook for Teachers and Students by E. B. Podgorsak Pub.: IAEA							
1	Publication							
2	The Physics of Radiation Therapy by Faiz M. Khan Pub.: Lippincott Williams & Wilkins							
3	Clinical Engineering (Principles and Application in Engineering) by Yadin David, Joseph. D. Bronzino							
3	Pub.: CRC Press							
ICT/MC	OOCs Reference							
1	https://www.course ra.org/specializations /patient-safety							
2	https://www.classcentral.com/course/quality-healthcare-6316							

	Mapping of CO with PO and PSO:														
	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P S O 1	P S O 2	P S O 3
CO1	2	2	1	1	1	0	0	1	2	1	1	1	2	3	2
CO2	1	2	2	1	2	1	0	2	2	1	1	1	2	3	2
CO3	1	2	1	1	1	0	0	1	2	1	1	1	2	3	2
CO4	1	2	1	1	1	0	0	1	2	1	1	1	1	2	2