Course Code	Course Title	Hours/Week			Credits	Maximum marks			CAT
		L	T	P		CA	FE	Tot	
Semester I									
	Calculus and Its Applications	3	2	0	4	40	60	100	BS
	English For Professional Skills – Medical Terminology	3	0	0	3	40	60	100	HS
	Human Anatomy and Physiology	3	0	0	3	40	60	100	BS
	Problem Solving and C Programming	3	0	0	3	40	60	100	BS
	Medical Physics	3	0	0	3	40	60	100	BS
	Problem Solving and C Programming Lab	0	0	4	2	60	40	100	BS
	Mathematical Foundations Lab	0	0	4	2	60	40	100	BS
	Professional Skills and Practices	0	0	2	0	0	0	0	EEC
Total		**15**	**2**	**10**	**20**	**320**	**380**	**700**	
Semester II									
	Transforms and Partial Differential Equations	3	2	0	4	40	60	100	BS
	Data Structures and Algorithms	3	0	0	3	40	60	100	PC
	Electrical and Electronics Engineering	3	0	0	3	40	60	100	ES
	Mechanical Design and Drawing	3	2	0	4	40	60	100	ES
	Basics of Computational Biology	3	0	0	3	40	60	100	BS
	Data Structures Lab	0	0	4	2	60	40	100	PC
	Electrical and Electronics Engineering Lab	0	0	4	2	60	40	100	BS
	NSS/ NCC/ NSO/ Community Connect	0	0	2	0	0	0	0	EEC
Total		**15**	**4**	**10**	**21**	**320**	**380**	**700**	

2) MSc Hospital Management and Accreditation (Two-year programme)

Why is this programme distinct?	Many institutes offer hospital administration/management Programme. However, this Programme is unique because of the following features. 1. **Comprehensive**: The programme covers all aspects of hospital administration, including policies, structure, finance, human resources, and quality improvement. It uniquely includes accreditation standards from bodies like NABH, NABL, and JCI. 2. **Practical**: The programme trains students to conduct internal audits, assess compliance with standards, identify improvement areas, and implement corrective actions. 3. **Quality**: The programme focuses on quality assurance, teaching students to maintain and improve standards, enhancing patient care and safety. 4. **Risk**: The programme highlights risk management principles and practices. 5. **Application**: The programme emphasizes real-world application through an interdisciplinary approach. 6. **Improvement**: The programme promotes a culture of continuous improvement in hospital settings. 7. **Insight**: Guest speakers and industry experts provide valuable insights, sharing trends, challenges, and best practices in hospital management. 8. **Blend**: The course integrates theoretical knowledge, practical skills, and industry insights, preparing students to excel in hospital administration, adhere to standards, and drive continuous improvement.

Total Credits 80 Scheme

Course code	Course title	Hours/week			Credit	Maximum Marks			Category
		L	T	P/C		CA	FE	Total	
SEMESTER 1									
	Foundations of Learning and Development	3	0	0	3	40	60	100	PC
	Organizational Behavior and Development	3	0	0	3	40	60	100	PC
	Learning Technologies and Innovations	3	0	0	3	40	60	100	PC
	Instructional Design and Curriculum Development	3	0	0	3	40	60	100	PC
	Mandatory Elective	3	0	0	3	40	60	100	ME
	Professional Elective I	2	0	0	2	40	60	100	PE
	Professional Elective II	2	0	0	2	40	60	100	PE
	Experiential Learning Lab I	0	0	4	2	60	40	100	EEC
Total		**19**	**0**	**4**	**21**	**340**	**460**	**800**	
SEMESTER II									
Course code	**Course title**	**Hours/week**			**Credit**	**Maximum Marks**			**Category**
		L	**T**	**P/C**		**CA**	**FE**	**Total**	
	Strategic L&D Planning	3	0	0	3	60	40	100	PC
	Assessment and Evaluation in L&D	3	0	0	3	60	40	100	PC
	Leadership and Team Management	3	0	0	3	60	40	100	PC
	Facilitation and Coaching	3	0	0	3	60	40	100	PC
	Professional Elective III	3	0	0	2	60	40	100	PE
	Professional Elective IV	3	0	0	2	60	40	100	PE
	Experiential Learning Lab II	0	0	4	2	40	60	100	EEC
Total		**21**	**0**	**4**	**18**	**400**	**300**	**700**	
SEMESTER III									
Course code	**Course title**	**Hours/week**			**Credit**	**Maximum Marks**			**Category**
		L	**T**	**P/C**		**CA**	**FE**	**Total**	
	Advanced Learning Theories	3	0	0	3	60	40	100	PC
	Global Trends in Learning and Development	3	0	0	3	60	40	100	PC
	Ethical and Inclusive L&D Practices	3	0	0	3	60	40	100	OE
	Project Management for L&D	3	0	0	3	60	40	100	PC
	Problem-Solving Methods	3	0	0	3	60	40	100	ME
	Professional Elective V	3	0	0	2	60	40	100	PE
	Professional Elective VI	3	0	0	2	60	40	100	PE
	Experiential Learning Lab III	0	0	4	2	40	60	100	EEC
Total		**21**	**0**	**4**	**21**	**340**	**460**	**800**	

4) MSc/MS Microelectronics and Semiconductor Technology (Two-year Programme)

Why is this programme distinct?	1. **Visionary**: Designed with a visionary perspective, recognizing India's potential to become a global hub for semiconductor and chip-making industries (AtmaNirbhar). 2. **Demand-Driven**: Addresses the need for skilled professionals due to India's booming electronics and semiconductor manufacturing sector, equipping students with industry-relevant knowledge and practical skills. 3. **Cutting Edge**: Encompasses cutting-edge semiconductor technologies, including microelectronics design, fabrication, and integration. 4. **Specialized Knowledge**: Cultivates professionals with expertise in the design, development, and integration of micro and nanoelectronics devices, and semiconductor technologies to meet modern industry demands. 5. **Empowerment**: Empower students to excel in the dynamic semiconductor and VLSI industry, positioning them as qualified professionals ready for challenging global roles. 6. **Industry Integration**: Integrates industry insights into the curriculum through MoUs with renowned semiconductor industries in India, offering valuable interdisciplinary exposure and training. 7. **Internships**: Provides internship opportunities that serve as pathways to secure placements in reputed semiconductor companies, giving students practical experience and potential career opportunities. 8. **Advanced Studies**: Prepares students to pursue advanced studies in Microelectronics and Semiconductor technologies, fostering contributions to technological innovation and advancement. 9. **Excellence**: Promotes a culture of excellence and innovation by having student projects evaluated by a committee of industry and academic experts, ensuring quality and relevance. 10. **Leadership**: Molds students to lead diverse teams with integrity and effective communication, promoting lifelong learning and social responsibility.

Total Credits 80 Scheme

Semester I									
Course Code	Course Name	Hours/Week			Credits	Maximum Marks			
		L	T	P		CA	FE	Total	CAT
	Biomolecules and Metabolism	3	0	0	3	40	60	100	PC
	Nutrition for Sports Exercise and Health	3	0	0	3	40	60	100	PC
	Introduction to Sports Biomechanics	3	0	0	3	40	60	100	PC
	Health Fitness and Wellness	3	0	0	3	40	60	100	PC
	Mandatory Elective	3	0	0	3	40	60	100	ME
	Practicum I	0	0	4	2	60	40	100	PC
	Practicum II	0	0	4	2	60	40	100	EEC
Total		**15**	**0**	**8**	**19**	**320**	**380**	**700**	

Semester II									
Course Code	Course Name	Hours/Week			Credits	Maximum Marks			
		L	T	P		CA	FE	Total	CAT
	Sports Biomechanics Kinesiology	3	0	0	3	40	60	100	PC
	Principles and Methods of Sports Training	3	0	0	3	40	60	100	PC
	Developing Computer Models for Sports	3	0	0	3	40	60	100	PC
	Sports Performance and Health	3	0	0	3	40	60	100	PC
	Applied Biomechanics	3	0	0	3	40	60	100	PC
	Practicum III	0	0	4	2	60	40	100	PC
	Practicum IV	0	0	4	2	60	40	100	EEC
Total		15	0	8	19	320	380	700	

6) MSc/MS Innovative Textiles (PG - 2 years Programme)

Why is this programme distinct?	1. Focuses on **specialized knowledge and skills related to industrial textiles,** covering various aspects such as manufacturing processes, materials and applications. 2. Adopts an **interdisciplinary approach, integrating principles from textile engineering, material science, mechanical engineering, and industrial engineering** to provide a comprehensive understanding of industrial textiles. 3. Prepares students for hands-on training in industrial textile production processes, machinery operation, quality control, **and testing methods,** preparing them for practical challenges in the industry. **4.** Includes advanced courses in areas such as **textile chemistry, textile processing, composite materials, technical textiles and smart textiles, staying abreast of industry trends and innovations.** 5. Emphasizes **research and development** in industrial textiles, encouraging students to explore **new materials, technologies and applications to enhance industrial processes and product performance.** 6. **Collaborations with industry partners to facilitate guest lectures, industrial visits, internships and live projects,** providing students with real-world exposure and networking opportunities. 7. **Integrates concepts of sustainability, eco-friendly materials** and green manufacturing processes into the curriculum. 8. Develops **students' careers in various sectors such as textile manufacturing, automotive industry, aerospace industry, medical textiles, protective clothing and sports equipment manufacturing.**

Total Credits 80 Scheme

Semester I									
Course Code	Course Title	Hours / Week			Credits	Maximum marks			CAT
		L	T	P		CA	FE	Tot	
	Artificial Intelligence in Medicine, Basics of clinical data, biomarkers, precision medicine	3	2	0	4	40	60	100	PC
	Design of Biomedical Devices and Systems	3	2	0	4	40	60	100	PC
	Professional Elective I	3	0	0	3	40	60	100	PE
	Professional Elective II	3	0	0	3	40	60	100	PE
	Research Methodology and IPR	3	0	0	3	40	60	100	HS
	Applied Biostatistics with practical	0	0	4	2	60	40	100	EEC
	Diagnostics & Devices Laboratory	0	0	4	2	60	40	100	EEC
Total		14	2	8	21	320	380	700	
Semester 2									
Course Code	Course Title	Hours / Week			Credits	Maximum marks			CAT
		L	T	P		CA	FE	Tot	
	Deep Learning	3	2	0	4	40	60	100	PC
	Clinical Implementations of AI including risk stratification, prediction analytics, modelling	3	2	0	4	40	60	100	PC
	Professional Elective III	3	0	0	3	40	60	100	PE
	Professional Elective IV	3	0	0	3	40	60	100	PE
	Entrepreneurship – Device Manufacturer / Hospital	3	0	0	3	40	60	100	HS
	Bio-techniques and Bio-instrumentation Laboratory	0	0	4	2	60	40	100	EEC
	Medical Image Analysis Laboratory	0	0	4	2	60	40	100	EEC
Total		15	2	8	21	320	380	700	

Course Code	Course Title	Hours/ Week			Credits	Maximum marks			CAT
		L	T	P		CA	FE	Tot	
Semester I									
	Calculus and Its Applications	3	2	0	4	40	60	100	BS
	English For Professional Skills	3	0	0	3	40	60	100	HS
	Medical Physics	3	0	0	3	40	60	100	BS
	Problem Solving and C Programming	3	0	0	3	40	60	100	BS
	Basics of Computational Biology	3	0	0	3	40	60	100	BIS
	Medical Physics Lab	0	0	4	2	60	40	100	BS
	Problem-Solving and C Programming Lab	0	0	4	2	60	40	100	BS
	Mathematical Foundations Lab	0	0	4	2	60	40	100	BS
Total		**15**	**2**	**12**	**22**	**380**	**420**	**800**	
Semester II									
	Transforms and Partial Differential Equations	3	2	0	4	40	60	100	BS
	Data Structures and Algorithms	3	0	0	3	40	60	100	PC
	Bioprogramming and Biostatistics	3	0	0	3	40	60	100	PC
	Plant and Animal Physiology	3	0	0	3	40	60	100	PC
	Molecular Cell Biology	3	2	0	4	40	60	100	PC
	Data Structures Lab	0	0	4	2	60	40	100	PC
	Bioprogramming and Biostatistics Lab	0	0	4	2	60	40	100	PC
	NSS/ NCC/ NSO/ Community Connect	0	0	2	0	0	0	0	EEC
Total		**15**	**4**	**10**	**21**	**380**	**420**	**800**	

Total Credits 80 Scheme

Semester 1									
Course Code	Course Name	Hours/Week			Credits	Maximum Marks			
		L	T	P		CA	FE	Total	CAT
	Public Administration & Governance: Concepts and Theories	3	0	0	3	40	60	100	PC
	Social and Political Philosophy in India	3	0	0	3	40	60	100	PC
	Data and Society	3	0	0	3	40	60	100	PC
	Python for Data Analysis	3	2	0	4	40	60	100	PC
	Mandatory Elective (ME)	3	0	0	3	40	60	100	ME
	Data Analysis using Spreadsheets Lab	0	0	4	2	--	100	100	EEC
	Python Programming Lab	0	0	4	2	--	100	100	EEC
Total		15	0	8	20	200	500	700	

Semester 2									
Course Code	Course Name	Hours/Week			Credits	Maximum Marks			
		L	T	P		CA	FE	Total	CAT
	Fundraising analytics and Campaign Finance	3	2	0	4	40	60	100	PC
	Diagnostics and Evaluation in Social Policy	3	0	0	3	40	60	100	PC
	Big Data and Social Strategy	3	0	0	3	40	60	100	PC
	Sustainable Development Analytics	3	0	0	3	40	60	100	PC
	Machine Learning for Social Policies	3	0	0	3	40	60	100	PC
	Social Media Analytics Lab	0	0	4	2	--	100	100	EEC
	Machine Learning Lab using any open-source software	0	0	4	2	--	100	100	EEC
Total		15	0	8	20	200	700	700	

10) MSc - Women Wellness and Welfare Management (Two-year Programme)

Why is this programme distinct?	1. **Equips:** Students gain deep insights into women's health and psychology through interactive learning. 2. **Engages:** Experts from diverse fields within PSG Institutions enrich students' perspectives on women's well-being. 3. **Integrates:** Practical skill development sessions empower women to manage health and address mental wellness. 4. **Prioritizes:** Cultural sensitivity and inclusivity in programme materials and discussions cater to diverse needs. 5. **Fosters:** A supportive community environment thrives through networking and peer support. 6. **Provides:** Ongoing learning and support extend beyond the programme duration. 7. **Empower:** Students advocate for women's health and rights in their communities and workplaces. 8. **Addresses:** The gap in training for roles like 'Women Welfare Officer' as identified by the National Career Service is targeted.