



# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
BS32	Human Health Systems Approach	2	-	-	Non-Credits			
		Examination Scheme						
		ISE1		ISE2		Attendance		Total
		20		20		10		50

Student will be evaluated after completion of 50% syllabus for 20 Marks (ISE1) and at the end of course for 20 Marks (ISE2). Grade equivalent to 'D' (50%-59.99% Marks) or above is considered as 'Satisfactory'. If any of the tasks given is not completed/submitted/shown/evaluated then the corresponding lower grade will be given. Although the grades are given they will not mentioned in final grade card but they are necessary to declare the successful completion of the Non-Credit course.

<b>Pre-requisite Course Codes</b>	ES4 (Programming Methodology and Data Structures)		
At the end of successful completion the course, students will be able to			
<b>Course Outcomes</b>	CO1	Physiology as integrated interdisciplinary Science	
	CO2	Physiological significance of balanced diet and exercise in health	
	CO3	Significance of cleanliness and hygiene in daily routine	
	CO4	Dynamics and homeostasis of human health	

Module No.	Unit No.	Topics	Ref.	Hrs.
1	<b>Levels of Organizational Systems</b>		1	2
	1.1	Molecular, Cellular and Organ Systems		
	1.2	Biological Molecules		
	1.3	Biochemistry, Biophysics, Molecular Biology and Bioengineering		
2	<b>Energy and Molecular Supply Chain Management</b>		1	7
	2.1	Digestive System: Nutrient supply and Balanced Diet		
	2.2	Respiratory System and effects of Pollution		
	2.3	Cardiovascular System, Blood Pressure, ECG and Blood Report		
	2.4	Musculo-skeletal System and exercise Physiology		
3	<b>Body Fluid Dynamics</b>		1	4
	3.1	Body fluids		
	3.2	Kidneys as Filtration Units and their Physiological Functions		
	3.3	Urinary System		
	3.4	Kidney and Urinary Stones, and Dialysis		
4	<b>Control, Coordination and Regulatory Systems</b>		1	4
	4.1	Sense Organs		
	4.2	Nervous systems		
	4.3	Endocrine Systems (Pancreas and Diabetes, Thyroid and its functions)		



# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India  
(Autonomous Institute Affiliated to University of Mumbai)

<b>5</b>	<b>Defense Systems</b>		<b>1</b>	<b>3</b>
	5.1	Integumentary System		1
	5.2	Immune System		2
<b>6</b>	<b>Molecular Biology and Genetical Information</b>		<b>2</b>	<b>6</b>
	6.1	Hereditary Molecules: DNA RNA		2
	6.2	Horizontal flow of Genetic Information		2
	6.3	Vertical flow of Genetic Information		2
			<b>Total</b>	<b>26</b>

## References:

- [1] Text book of Anatomy and Physiology for Nurses and allied Health Sciences by Indu Khurana & Arushi
- [2] Simplified Course in Molecular Biology by V. K. Agarwal - S. Chand Publication