Janardan Bhagat Shikshan Prasarak Sanstha's

CHANGU KANA THAKUR

Arts, Commerce and Science College, New Panvel (Autonomous)

Department of Physics

Academic Year 2025-26

Program Offered

Class : FYBSc (PCM)

No. of Courses	Semester I	Credits	No. of Courses	Semester II	Credits
A	***Discipline Specific Course (Major)***		**A**	***Discipline Specific Course (Major)***	
1	Mechanics, Properties of matter and Electronics	3+1	1	Optics and Modern Physics	3+1
2	General Chemistry I	3+1	2	General Chemistry II	3+1
3	Maths	3+1	3	Maths	3+1
B	***Indian Knowledge System (IKS)***		***B***	***Open Elective (OE)***	
4	IKS	02	4	Solar Energy -Fundamentals & its Applications	02
D	***Skill Enhancement Course (SEC)***		***D***	***Skill Enhancement Course (SEC)***	
5	Basic mechanics and Electronics	02	5	Basics of Optics & Electronics	02
F	***Value Education Course (Any One)***		***F***	***Value Education Course (Any One)***	
6	Digital Technology and Solutions	02	6	Digital Technology and Solutions	02
7	Understanding India	02	7	Understanding India	02
8	Environmental Studies	02	8	Environmental Studies	02
E	***Ability Enhancement Course (AEC) (Any One)***		***E***	***Ability Enhancement Course (AEC) (Any One)***	
9	Marathi	02	9	Marathi	02
10	Hindi	02	10	Hindi	02

G	*Co-curricular Courses (Any One)*		*G*	*Co-curricular Course (Any One)*	
11	Foundation Course in NSS-I	02	11	Foundation Course in NSS-II	02
12	Foundation Course in NCC-I	02	12	Foundation Course in NCC-II	02
13	Foundation Course in PE-I	02	13	Foundation Course in PE-II	02
14	Foundation Course in PA-I	02	14	Foundation Course in PA-II	02
Total Credits		22	Total Credits		22

Class : SYBSc Physics

No. of Courses	**Semester III**	**Credits**	**No. of Courses**	**Semester IV**	**Credits**
A	***Discipline Specific Course (Major)***		***A***	***Discipline Specific Course (Major)***	
01	Mathematical Physics and Analog Electronics	02	01	Thermodynamics, Oscillations and Electronics	02
02	Optics and Photonics	02	02	Digital Electronics And 8085 Microprocessor	02
03	IKS - Astronomy and Cosmology	02	03	Basic of quantum mechanics and Properties of Material	02
04	Practicals of Mathematical Physics and Analog Electronics and Optics and Photonics	02	04	Practicals of Thermodynamics, Oscillations and Electronics and Digital Electronics and 8085 Microprocessor	02
B	***Discipline Specific Course (Minor)***		***B***	***Discipline Specific Course (Minor)***	
05	Analog Electronics and Optics	02	05	Mechanics, Thermodynamics, Digital Electronics	02
06	Practical of Analog Electronics and Optics	02	06	Practical of Mechanics, Thermodynamics, Digital Electronics	02
C	***Open Elective***		***C***	***Open Elective***	
07	NA	04	07	NA	04
D	***Skill Enhancement Course (SEC)***		***D***	***Community Engagement Projects (CEP)***	
08	Basics of Electricity and Electronics	02	08	(Title not required)	02
E	***Ability Enhancement Course (AEC) (Any One)***		***E***	***Ability Enhancement Course (AEC) (Any One)***	
09	Communication Skills - English	02	09	Communication Skills - English	02

F	*Co-curricular Courses (Any One)*		*F*	*Co-curricular Course (Any One)*	
11	Foundation Course in NSS-I	02	11	Foundation Course in NSS-II	02
12	Foundation Course in NCC-I	02	12	Foundation Course in NCC-II	02
13	Foundation Course in PE-I	02	13	Foundation Course in PE-II	02
14	Foundation Course in PA-I	02	14	Foundation Course in PA-II	02
Total Credits		22	Total Credits		22

Class : TYBSc Physics

No. of Courses	**Semester V**	**Credits**	**No. of Courses**	**Semester VI**	**Credits**
A	***Discipline Specific Course (Major)***		**A**	***Discipline Specific Course (Major)***	
01	Atomic Physics and Mechanics	04	01	Nuclear Physics and Optics	04
02	Solid State Physics and Electrodynamics	04	02	Electronics and Relativity	04
03	Practicals of Atomic Physics and mechanics & Solid State Physics and Electrodynamics	02	03	Practicals of Nuclear Physics and Optics & Electronics and Relativity	02
B	***Elective Course***		***B***	***Elective Course***	
04	Introduction to C++ programing	03	04	Basics of Python programing	**03**
05	Practicals of Introduction of C++	01	05	Practicals of Basics of Python programing	**01**
C	***Discipline Specific Course (Minor)***		***C***	***Discipline Specific Course (Minor)***	
06	Mechanics, Analog Electronics and Properties of materials	02	06	Fluid Mechanics, Thermodynamics II, Digital Electronics	02
07	Practical of Mechanics, Analog Electronics and Properties of materials	02	07	Practical of Fluid Mechanics, Thermodynamics II, Digital Electronics	02
D	***Vocational Skill Courses***		***D***	***On Job Training***	
08	Experimental Physics	04	08	(Title not required)	04
Total Credits		**22**	**Total Credits**		**22**