St. Xavier's College – Autonomous
Mumbai

Syllabus
For 6th Semester Applied Component in PHYSICS
(June 2019 onwards)

TYBSc Physics: Applied Component **COURSE:SPHY06AC**

APPLIED PHYSICS **[60 LECTURES]**

Prerequisite: Physics up till second year of BSc.
Learning objective: To apply fundamental laws of nature to practical applications.

UNIT I **(15 LECTURES)**
Problem solving in Mechanics, waves and thermodynamics (Advanced)
UNIT II **(15 LECTURES)**
Problem solving in Optics, electronics and electrodynamics (Advanced)

UNIT III **(15 LECTURES)**
Preparation of project proposal / Synopsis
Approval of final project
UNIT –IV **(15 LECTURES)**
Analysis of data and discussion
Thesis writing (10000 -15000 words)

REFERENCES
University Physics by Young and Freedman, Pearson, 13th ed
Electronic Principles by Malvino, TMH
Concepts of Physics by HC Verma, Bharati Bhawan

Evaluation
1) CIA 1. 20-mark written exam.
2) Submission of literature review, Problem statement (synopsis) on time : 20 Marks
3) End semester: Viva by internal and external examiners. (60 Marks)

There won't be any written end semester examination.

COURSE:S.PHY06PRAC
APPLIED PHYSICS

Practical course

The approved experimental work of dissertation will be conducted in the department lab or any other lab or in the field. It will be evaluated for 50 marks.

Evaluation

2) Laboratory work : Experimental set up, observations, data, analysis and errors (50 mark)