

Semester	AUG 2022
Open to semester	5,11,21
Course code	<b>PH3144/PH6134</b>
Course title	<b>Electronics-I with lab*</b>
Credits	4 /4
Course Coordinator & participating faculty (if any)	Shouvik Datta
Nature of Course	Lectures and Tutorials
Pre-requisites	None
Objectives (goals, type of students for whom useful, outcome etc)	To provide an overview of the design principles of electronic circuits. By the end of this course, students are expected to be able to understand simple circuits, and also design new circuits on their own.
Course contents (details of topics /sections with no. of lectures for each)	Familiarization of students with Basic concepts of the following, leading to a preparation of foundations for advanced electronics: Network Analysis Electronic devices and circuits Applications of basic semiconductor devices Fundamentals of operational amplifier and circuits
Evaluation /assessment	End-Sem Examination-35% Mid-Sem Examination-35% Others-3) Quiz - 15% 4) Experimental Design Project: 15%%
Suggested readings (with full list of authors, publisher, year, edn etc.)	1. Electronic Principles: A. Malvino and D. Bates (2006) 7th edition, Mc-Graw-Hill 2. The Art of Electronics: P. Horwitz and W. Hill (1989) 2nd edition, Cambridge University Press 3. Electronic devices and circuits' by Robert L. Boylestad & Louis Nashelsky, Pearson-2009