

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Sc (Physics)**  
**Semester: V**  
**Syllabus with effect from: June-2013**

<b>Paper Code: US05CPHY09</b>	<b>Total Credit: 2</b>
<b>Title Of Paper: Physics Practical (Optics, Solid State Physics, Energy Science &amp; Numerical Analysis</b>	

	Description in detail	
<b>List Of Practicals</b>		
1	Michelson interferometer	
2	Edser butler plate. To calibrate spectrometer	
3	Refractive index by total internal reflection using Gauss eye piece	
4	Thickness of a thin wire using optical bench	
5	Determination of lattice parameter by X-ray from a photograph (powder method)	
6	Dissociation of I <sub>2</sub> molecule	
7	Solar cell characteristics	
8	Searl's Goniometer (Fixed distance)	
9	Diagonalization of a matrix (Jacobi method)	
10	Numerical differentiation (computer related)	

**Note:** To provide flexibility up to the maximum of 20% of total experiments can be replaced/ added to the list by the board of studies.

**Basic Text & Reference Books :-**

- Advanced Practical Physics for students  
B L Wosnop and H T Flint, Methuen and Co. Ltd., London
- B.Sc. Practical Physics  
C L Arora, S.Chand & Co. Ltd., New Delhi
- Advanced Practical Physics  
M S Chauhan and S P Singh, Pragati Prakashan, Meerut
- Advanced Practical Physics  
S L Gupta and V Kumar, Pragati Prakashan, Meerut
- An advanced course in practical Physics  
D Chattopadhyay and P C Rakshit, New Central book agency Pvt. Ltd.

