

## BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
<b>PHY-415</b>	<b>BIOPHYSICS-I (THEORY)</b>	<b>3</b>	<b>VII</b>
Year	Discipline		
<b>4</b>	<b>Physics</b>		

### Course Outlines:

Nature and scope of biophysics; Molecular Structure of Biological Systems; Chemical binding, energies and bonds; Energy transfer and transformation in photosynthesis and biological membranes; Dynamics of biological systems; Fundamental concepts of thermodynamics, aqueous and ionic equilibrium of living cells; Other biotransport processes; Long and short distance transports; Viscoelastic properties of biomaterials.

### **Books Recommended:**

1. *Radiation Biophysics* by L. Alpen Edward, Academic Press, (1988).
2. *Biophysics—An Introduction*. John Wiley and Son, (2002).
3. *Molecular Biophysics: Structures in Motion*, Oxford University Press UK, (1999).
4. *Biophysics* by Glaser Rowland (2001). Springer Verlag, Berlin.
5. *Biophysical Thermodynamics* by T. Haynie Donald, Cambridge, University Press UK, (2001).