

Omics - II (SOII231C)

(Credit hours: Theory-3, Lab-1)

UNIT I

Biological Systems, Introduction to Mathematical Modeling, Introduction to Graph Theory

UNIT II

Static Network Models, The Mathematics of Biological Systems, Parameter Estimation

UNIT III

Gene Systems, Protein Systems, Metabolic Systems

UNIT IV

Signaling Systems, Design of Biological Systems

Text/Reference Books:

1. A first Course in System Biology, *Eberhard Voit*, Mar 2012.
2. Systems Biology: A Text Book, *Edda Klipp et al.* Aug 2009.