NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Biotechnology - Biomathematics
Subject Co-ordinator - Dr. Ranjith Padinhateeri
Co-ordinating Institute - IIT - Bombay
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - Graphs and functions - I
Lecture 3 - Graphs and functions - II
Lecture 4 - Functions and derivatives
Lecture 5 - Calculation of derivatives
Lecture 6 - Differentiation and its application in Biology - I
Lecture 7 - Differentiation and its application in Biology - II
Lecture 8 - Differentiation and its application in Biology - III
Lecture 9 - Differentiation and its application in Biology - IV
Lecture 10 - Integration - I
Lecture 11 - Integration - II
Lecture 12 - Differential equations - I
Lecture 13 - Differential equations - II
Lecture 14 - Vectors - I
Lecture 15 - Vectors - II
Lecture 16 - Vectors - III
Lecture 17 - Nernst equation
Lecture 18 - Diffusion - I
Lecture 19 - Diffusion - II
Lecture 20 - Diffusion - III
Lecture 21 - Statistics
Lecture 22 - Statistics
Lecture 23 - Understanding Normal distribution
Lecture 24 - Fitting a function to experimental data
Lecture 25 - Size of a flexible protein
Lecture 26 - Uniform and Poisson distributions; Knudsonâ s analysis
Lecture 27 - Fourier Series - I
Lecture 28 - Fourier Series - II
Lecture 29 - Fourier transform
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Lecture 30 - Master equation

Lecture 31 - Evolution

Lecture 32 - Tutorial - I

Lecture 33 - Tutorial - II

Lecture 34 - Temperature, Energy and Entropy

Lecture 35 - Partition function, Free energy

Lecture 36 - Bending fluctuations of DNA and spring-like proteins

Lecture 37 - Force-extension and looping of DNA

Lecture 38 - Thermodynamics of protein organization along DNA

Lecture 39 - Learning mathematics with the help of a computer