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

```
NPTEL Video Course - Biotechnology - NOC: Introductory Mathematical Methods for Biologists
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
Lecture 3 - Equations as Graphs
Lecture 4 - Graphs
Lecture 5 - Graphs
Lecture 6 - Images as 2D/3D Functions
Lecture 7 - Functions and its Derivatives
Lecture 8 - Computing Derivatives of Curves
Lecture 9 - Rules for Calculating Derivatives
Lecture 10 - Understanding Derivatives
Lecture 11 - Curvature and Second Derivative
Lecture 12 - Plotting Curves
Lecture 13 - Numerical Calculation of Derivatives
Lecture 14 - Function, Derivatives and Series Expansion
Lecture 15 - L'Hopital's Rule and Partial Derivatives
Lecture 16 - Integration
Lecture 17 - Integration
Lecture 18 - Integration
Lecture 19 - Integration
Lecture 20 - Integration
Lecture 21 - Exponential Growth and Decay
Lecture 22 - Scalars and Vectors
Lecture 23 - Vectors
Lecture 24 - Cell Symmetry
Lecture 25 - Gradient, Forces and Flows
Lecture 26 - Gradient, Forces and Flows
Lecture 27 - Understanding Diffusion
Lecture 28 - Diffusion Constant and Einstein Relation 1905
Lecture 29 - Diffusion Equation
```

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

Lecture 30 - Diffusion vs. Active Transport
Lecture 31 - Nernst Equation
Lecture 32 - Fourier Series
Lecture 33 - Fourier Series
Lecture 34 - Fourier Transform
Lecture 35 - Introduction to Statistics
Lecture 36 - Mean, Standard deviation and Distribution
Lecture 37 - Frequency Distribution and Probability Distribution
Lecture 38 - Binomial Distribution
Lecture 39 - Normal Distribution
Lecture 40 - Hypothesis Testing and Mathematical Modeling