



## **BC\_201 Aug 2:0**

# **CELL BIOLOGY**

### **Instructor**

UTPAL TATU

Email: tatu@iisc.ac.in

### **Teaching Assistant**

NONE

Email: NONE

### **Department: BIOCHEMISTRY**

Course Time: Mon, Wed, 9:00-10:00AM

Lecture venue: Biochemistry lecture hall

Detailed Course Page: <http://biochem.iisc.ernet.in/courses.php>

## **Announcements**

### **Brief description of the course**

BC\_201 : The course offers a detailed program of study to understand the fundamental principles of cell biology by means of lectures, seminars and assignments.

### **Prerequisites**

Knowledge of basic biology, preferably Bachelors in any discipline of life sciences.

### **Syllabus**

BC\_201: Biogenesis of proteins in eukaryotes: targeting to intracellular organelles, post-translational modifications, cellular redox. Intracellular protein degradation: lysosomal and non-lysosomal. Nuclear organization and function, chromosome structure, function and inheritance. Regulation of the Cell cycle, dynamic molecular events during mitosis, cell-cell communication.

### **Course outcomes**

Students develop important basic understanding about cellular processes including cell cycle, signalling, trafficking and organellar dynamics. A significant emphasis is laid on experimental approaches used and thereby an appreciation for experimental background behind discoveries is also developed by the students.

### **Grading policy**

50% mid term examination and 50% final examination.

## **Assignments**

Assignments are given roughly every week to enhance critical thinking and problem solving abilities of students.

## **Resources**

Principal course material includes lecture notes, handouts and related research articles and reviews.

Primary reference book:

Lodish, H., Berk, A., Krieger, C. A., Scott, M. P., Bretscher, A., Ploegh, H. and Matsudaira, P., Molecular Cell Biology, W.H. Freeman Publishers, 6th Edition, 2008