



## **Regulation for Minor in Computational Biology (CB)**

The genomic revolution in biology enables one to answer many questions in medical sciences like personalized medicine, the etiology of diseases like cancer, HIV, etc. But the answers to these questions are impossible without a support of powerful computational and statistical tools that helps to understand and uncover the underlying network design principles responsible for these diseases. With the advent of new biotechnological techniques massive amounts of genomics data are generated at a rapid pace from the experiments and the analysis of these data requires tremendous amount of domain knowledge, solid computational background and strong programming skills. The entry cost of this highly interdisciplinary field consists of a good amount of understanding of molecular biology, genomics, algorithms, programming, statistical computation, machine learning, stochastic processes, and other mathematical techniques that underlie biological design principles. Therefore it is imperative to stitch biology, statistics, algorithms and mathematical models to analyze and interpret large scale genomic and biological data. IIIT-Delhi is starting a focused MTech program in computational biology.

As computational Biology is an interdisciplinary area, it is well suited for a minor for interested students from computer science and electronics background who wish to make a foray in computational biology. Hence, it is proposed that a minor be offered to the BTech students. The courses for the Minor will mostly be the courses that are offered to MTech students.

### **Requirements for a Minor in Computational Biology for a BTech students are:**

- A student must complete 16 credits (4 courses) from the core courses of the MTech(CB) program. In addition, a student must do 4 credit of IS/IP/UR in Computational Biology
- All other requirements for BTech (in CSE or ECE) must be satisfied.

### **Change History:**

July, 2014 release