



## **SYLLABUS**

### **DEPARTMENT OF M.SC BIOINFORMATICS**

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**DR.M.G.R.JANAKI COLLEGE FOR WOMEN**

EXCELLENCE THROUGH DILIGENCE

"Sathyabama MGR Maligai", 11&13, Durgabai Deshmuk Road, Chennai - 600028,  
Tamilnadu. Phone:044 2493 7382 , E-mail: info@mgrjanaki.ac.in ,

Web: www.mgrjanaki.ac.in

## **I Semester**

- 1. Major 1: Biochemistry**
- 2. Major 2: Biophysical Chemistry**
- 3. Major 3: Biostatistics**
- 4. Major 4: Theory & Practice of Computer Science & Programming (Practical's)**
- 5. Elective Subject :  
Cell biology / Introduction to Mathematical Methods**
- 6. Soft Skill**

## **II Semester**

- 1. Major 1: Introduction to Bioinformatics**
- 2. Major 2: Molecular Biology & Biotechnology**
- 3. PRACTICALS 1 :  
Biochemistry & Molecular Biology Lab**
- 4. PRACTICALS 2 :  
Theory & Practice of Computer Programming PERL & CGI.**
- 5. Elective Subject :  
Programming in Java**
- 6. Elective (other Dept) :  
Basics of Computer –Aided Drug Design**
- 7. Soft Skill, Internship**

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### **III Semester**

- 1. Major 1: Genomics & Proteomics**
- 2. Major 2: Algorithms for Computational Biology**
- 3. Major 3: Structural Bioinformatics**
- 4. PRACTICALS :  
Tools & Their Applications in Bioinformatics**
- 5. Elective Subject :  
Systems Biology**
- 6. Elective (other Dept) :  
Potential, Applications & Commercial aspect of  
Bioinformatics**
- 7. Soft Skill**

### **IV Semester**

- 1. Major 1 : Databases in Molecular Biology**
- 2. Elective Subject : Advanced Topics in Bioinformatics**
- 3. Elective Subject : Bioinformatics & Drug design**
- 4. Project & Viva – Voce**
- 5. Soft Skill**

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