

## DEPARTMENT OF BIOTECHNOLOGY

The revision of B.Sc., Biotechnology syllabus was initiated by a team of Senior Faculty members the department constituted in Aug 2014; the committee scrutinized the syllabus and suggested several changes in the contents of the syllabus, title of the paper, introduction of new paper and merging of existing papers in theory and practical.

The Board of Studies for B.Sc., Biotechnology meet on 17.10.14 to approve the received syllabus which will be effective from 2015-2016 onwards.

The following members were present

1. Dr.K.Rajagopal – Chairman, BOS  
Director, School of Life sciences  
HOD, Department of Biotechnology  
Vels University
2. Dr. K. Kathiravan - Member External  
Associate Professor,  
Department of Biotechnology  
University of Madras, Chennai
3. Dr.N. Sivasamy - Member External (Industry Representative)  
Scientist, Synkromax Biotech Pvt Ltd  
Porur, Chennai
4. Dr.K.P. Girivasan - Member - External  
Associate Professor.  
Department of Plant Biology and Biotechnology  
Government Arts College (Men's)  
Nandanam, Chennai
5. Dr.N.Banu - Member- Internal  
Associate Professor  
Department of Biotechnology  
Vels University  
Chennai
6. Mr. Edward Joseph Gallyot - Student Representative  
III B.Sc Student  
Department of Biotechnology

## **BOS Meeting & Minutes**

The total credits for the course was 140 as per the regulations for this course.

BOS approved that there shall be no minimum mark for internal assessments however there shall be a passing minimum in semester and examination both for theory and practical's /project and viva- voce examination.

### **The pattern of question paper will be**

PART-A [50 words answer] [10x3=30]

PART-B [200 words answer] [5x8=40]

PART-C (500 words answer) [2x15=30].

The Core Paper- I Basic Cell Biology title renamed as Advanced Cell biology The syllabus was also changed.

The Core Paper- II Practical has been renamed as Advanced Cell Biology and Chemistry. The syllabus for both the practicals has been modified.

The Allied Paper I Chemistry the syllabus was modified for the present day need.

In the second semester the core paper III renamed as Molecular Genetics and Developmental Biology, the paper merged and new syllabus incorporated. Previously Genetics was taught in the Second semester and Developmental biology taught in the Third semester. In the new regulation both papers were merged with new syllabus.

Allied paper II – Biochemistry of previous regulation changed as Biochemistry and Bioinstrumentation accordingly new syllabus was included. In the Core paper -IV the practical syllabus was also modified.

The Core paper V – The Clinical Diagnosis Technique paper the syllabus was changed and in the Core paper practical III, the syllabus was changed and Clinical Diagnosis Technique practical was incorporated newly from academic year 2015-16.

The Allied paper III Microbiology shifted from semester I to semester III with change of syllabus.

The Core paper VII Plant and Animal Biotechnology is newly introduced and the syllabus was changed. Previously Plant Biotechnology taught separately in 4<sup>th</sup> semester and Animal Biotechnology in 5<sup>th</sup> semester. From academic year 2015-16 the papers were merged with new syllabus.

In the Core paper VIII practical IV the syllabus was completely changed

Allied IV- Paper Biophysics, Biostatistics and Computational Biology were newly introduced. In previous regulation 2011-2012 the Bioinformatics paper was taught separately. In new regulation it is merged with a new two subjects and the syllabus was changed.

The Core paper- IX Genetic Engineering, IPR and Bioethics paper retained with a modification of the syllabus.

The Core paper- X Immunotechnology paper retained with change in the syllabus

The Core paper- XI Biofermentation and Downstream processing was introduced newly from this regulation 2015-2016.

The Core paper- XII Practical V- was included with a change of new syllabus.

Elective I Nanobiotechnology,

II Food Processing Technology

III Mushroom Cultivation and its Marketing

From regulation 2015 – 2016, Elective papers incorporated in the syllabus Elective I & II newly incorporated. The Elective III was modified from the Elective I of Sixth semester in the previous regulation renamed it as Mushroom cultivation and its Marketing with the modification of syllabus.

For research lab visit one credit has been allotted which was not given for previous regulation and it was made compulsory that all students register for this course. A report should be submitted to this effect.

In Sixth semester – Core paper XIII – a new paper incorporated as Introduction to Stem Cell Biology and Tissue Engineering.

In the Core paper XIV – the title of the paper renamed it as Medical Coding and Clinical Research with a modification of syllabus in Medical Coding and incorporation of Clinical Research syllabus. The above two subject's syllabus were merged and introduced as new paper from the academic year 2015-16.

The Core paper- XV – Marine Biotechnology was newly introduced from the academic year 2015-16.

In the Elective paper –IV Microbial and Environmental Biotechnology shifted from V semester to VI semester with change in the syllabus from the academic year 2015-16.

The Elective paper – V Pharmaceutical Biotechnology newly introduced with new syllabus from the academic year 2015-16.

The Elective paper – VI Herbal Technology paper is newly introduced in the syllabus from the academic year 2015-16.

A Mini group project was introduced in the sixth semester from the academic year 2015-16.

In the Elective papers I to III in the fifth semester and In the Elective papers IV-VI, students can choose any one Elective. However per a minimum of 15 students must opt for the paper.

Mini group project is compulsory for all students who register for the course. A group 5 students will do the project on topic provide in the syllabus. All students in the group will be given equal credit for the project they have carried out. A project copy should be submitted for viva-voce exam at the end of the semester for evaluation.

**All the above change, modification and revision in the syllabus was carried out in order meet the advancement in the field of Biotechnology to equip the students to compete with other university students for job and research and to face the competitive exams at national level, this syllabus revision was carried out.**