

**Meeting of Board of Studies for Department of Biotechnology, V.E.S. College of Arts,
Science and Commerce (Autonomous)**

Date: August 3, 2022

Time: 2:00 PM

Mode: Online - Google Meet

Agenda: *Discussion on the S.Y.B.Sc. Semester III Biotechnology Syllabus (Autonomous)*

Members:

1. Chairperson:

Ms. Vinaya Jategaonkar, Coordinator, Department of Biotechnology, V.E.S. College of Arts, Science and Commerce

2. Department Members: Ms. Shmilona Jain

Ms. Geetanjali Harale,

Ms. Ankita Jadhav

3. External Subject Experts:

Dr. Ram Kulkarni, Associate Professor, Symbiosis School of Biological Sciences, Symbiosis International

Dr. Bhakti Mhatre, Assistant Professor, D.Y. Patil University

4. University Nominee:

Dr. Sucheta Golwalkar, Head of Department, Biotechnology, Ramniranjan Jhunjhunwala College, Ghatkopar

5. Subject Expert (R&D/Industry):

Mr. Virochan Chavan, Sr. Clinical Data Coordinator IQVIA

6. PG Alumnus:

Ms. Vishakha Mali, Genetic Counselor, Neuberger Center of Genomic Medicine

Minutes of the meeting:

1. Meeting began with introduction of all members and a brief review of the F.Y.B.Sc. Syllabus passed last year.
2. The comments and inputs of the Academic Council on the aforementioned syllabus were also put forth.
3. The S.Y.B.Sc. Syllabus was then taken up paper wise. All members of the department presented the papers with reference to the Mumbai University Syllabus and any changes they had made in the same.
4. Paper I - Bioprocess Technology was presented. Each unit was explained with respect to one unit of fermentation technology in F.Y. B.Sc. Syllabus. Dr. Mhatre suggested addition of kinetics of fermentation.
5. Paper II - Medical Microbiology was presented by Ms. Vinaya Jategaonkar. She discussed each unit with references. She explained how *Klebsiella pneumoniae* was replaced by *Corynebacterium diphtheriae* in the syllabus because pneumonia is not very common and DPT vaccine is given extensively in India. She also discussed changes in

reference books. She was asked to add an introduction to each unit from the F.Y.B.Sc. portion in brief before delving into individual micro-organisms.

6. Paper III - Applied Chemistry I paper was presented by Ms. Shmilona Jain. She discussed the extent to which chemistry is covered in F.Y.B.Sc. syllabus before presenting the units-wise details of the paper. The BOS felt that in unit 2 (Chromatography and Centrifugation), a general introduction to applications of chromatography should also be included and along with HPLC, Gas Chromatography (GC) should also be taught.
7. Ms. Shmilona Jain also presented Paper IV - Fundamentals in Biophysics. She explained how the paper had too much physics which was therefore modified to include biological aspects of each topic. For example, with the physics aspect of optics, vision and structure of the eye was included. The reference book had also been changed from a pure physics book to a book of biophysics. The BOS members had two suggestions for this paper,
 - a. Inclusion of polarization of light in optics
 - b. Addition of Pulse - field electrophoresis in unit 3 (Electrophoretic Techniques)
8. Paper V - Immunology was presented by Ms. Ankita Jadhav who discussed each unit and how a rearrangement of topics and addition of a new reference book for Immunotechnology had been done. The committee was satisfied with this paper and did not suggest any changes.
9. Ms. Geetanjali Harale presented Paper VI - Molecular Biology III. She mentioned that it was a well structured paper as taught in Mumbai University and so not many changes were incorporated in it. The committee agreed with her point of view.
10. Ms. Vinaya Jategaonkar presented Paper VII - Biosafety. This is a new paper introduced by the department in place of the research methodology paper in the Mumbai University syllabus. Mr. Virochan suggested the addition of 'Classification of waste' in Unit II (Biosafety in Diagnostic Labs). The board also felt that Unit III (Detection and Testing of Contaminants) was too vast and might not be completed in the allotted 15 lectures.
11. This was followed by a discussion on the proposed practicals. The committee was quite satisfied with the practical list for all three practical papers - Paper I (Bioprocess Technology and Medical Microbiology), Paper II - (Chemistry and Biophysics) and Paper III (Immunology and Molecular Biology)
12. There was a suggestion of including Oudin's Method in Immunotechnology practicals (Practical Paper III)
13. The entire syllabus was well received by the entire board. The vote of thanks was proposed by Ms. Shmilona Jain.
14. The next meeting, for Semester IV syllabus designing, will be organized in February 2023 which will be in offline mode

Ms. Vinaya Jategaonkar
Chairperson