

**SOPHIA COLLEGE FOR WOMEN (AUTONOMOUS)**  
**MINUTES OF THE ONLINE 12th BOARD OF STUDIES (MICROBIOLOGY)**  
**MEETING HELD ON 20th April 2024.**

Time: 11:00 am

Platform- ZOOM

Link - <https://zoom.us/j/93146184963?pwd=dUZ6L3VRd1FSdWoxdHRRNmNSb3YvQT09>

Meeting ID: 931 4618 4963

Passcode: 085470

<https://zoom.us/j/6925783611?omn=93002799745>

Meeting ID: 692 578 3611

Board of Studies members-

Sr no.	Name	Designation
1.	Dr Anuradha Pendse	Vice Chancellor's nominee
2.	Dr Vikrant Bhor	Expert from non-parent University (ICMR- NIRRH)
3.	Dr Manju Sharma	Expert from non-parent University (ICT Matunga) - granted leave of absence
4.	Dr Girish Mahajan	Industry expert - granted leave of absence
5.	Ms Martina Gomes	Meritorious alumna

Staff Members -

Sr. No.	Name	Designation
1.	Dr (Ms) Arjumanara Surti	Chairperson and Head, Department of Microbiology Associate Professor
2.	Dr (Ms) Rajbinder Kaur Dehiya	Associate Professor
3.	Ms Shraddha Prabhu	Assistant Professor
4.	Mr Vijay Vig	Assistant Professor
5.	Ms Swamini Patade	Assistant Professor
6.	Ms Priyanka Mithbawkar	Assistant Professor
7.	Ms Purva Kantak	Assistant Professor

AGENDA:

1. To read and pass the minutes of the previous BOS meeting held on 21st October 2023.
2. To pass SYBSc syllabus for the AY 2024-2025 under NEP (DSC, VSC, SEC and OE)
3. To pass MSc-II syllabus for the AY 2024-2025 under NEP
4. To pass the examination pattern for SYBSc and MSc-II.
5. To inform about the PhD course work
6. To introduce and pass the syllabus of a new course - Diploma in Histotechnology

Minutes of the previous BOS meeting held on 21st October 2023 were presented and passed.

Proposed by - Dr Vikrant Bhor

Seconded by - Dr Martina Gomes

## **SYBSc Syllabus**

### **Semester 3**

**SMCB233MJ - Environment Microbiology** syllabus under NEP was presented. Dr Pendse had a query regarding the activity included in the practicals of DSC1 (SMCB233MJ Environmental Microbiology) on research and review articles. She enquired whether all students would be doing and how learning outcomes would be measured. Mr Vig replied that this activity has been done in the past and students will be explained in the batches, questions on this activity will be asked in viva during the practical exam. Dr Pendse suggested making a rubric for this activity to which Dr Surti agreed and said Mr Vig would work on the same.

**SMCB234MJ - Basics of Biochemistry and Genetics** was presented. Dr Pendse enquired about the number of practicals based on Genetics. Dr Surti replied that there is one practical on Genetics, 'isolation of genomic DNA' and the rest are chemical assays. Dr Bhor enquired whether regulation of gene expression is included in this paper. Dr Surti replied that the same will be included in one of the TYBSc papers.

**OE1, OE305 - Into the World of Cheese** and **OE2, OE306 Entrepreneurship in Mushroom Cultivation and Wine Production** were presented. Dr Bhor enquired about the intake of students for OE. Dr Surti replied that the number of students can be up to 100. Dr Bhor also said since students from other streams will be opting for the OE, the presentations have to be made attractive. Dr Pendse commented that OE2 is vast, and expressed her concern that the topics of market analysis, and legal and regulatory considerations will be challenging for non-science students. She suggested restructuring the OE2 paper to which Dr Surti agreed. Ms Gomes suggested inviting industry experts and professionals to explain legal and regulatory considerations so that students can get a better picture of the regulatory aspects.

**VSC, SVSC304 - "Enrichment, Cultivation and Detection of"** - was presented

### **Semester 4**

**SMCB245MJ - Industrial, Dairy and Food Microbiology** was presented. Ms Gomes inquired whether it is offered to students of other colleges. Dr Surti replied that DSC is only for our students and this course is for Microbiology major students.

**SMCB246MJ - Epidemiology, Diagnostic Microbiology and Immunology** was presented. Dr Bhor suggested including the topic 'interaction (regulation) of microbes with the immune system'. He also asked on the topic, Molecular methods and analysis of metabolic products, whether the nucleic acid detection methods include exclusively PCR or other methods such as sequencing. Ms Patade replied that it includes PCR and hybridization. Dr Bhor emphasized that sequencing is a very important diagnostic tool for many diseases including tuberculosis and suggested including sequencing in nucleic acid-based methods.

**SEC, SSEC404- Basic Instrumental Techniques** was presented and all BOS members agreed that it was fine.

The assessment pattern for all above courses was presented.

SYBSc Semester 3 and 4 syllabus was approved/passed with the suggested modifications

Proposed by Dr Vikrant Bhor

Seconded by Dr Anuradha Pendse

## **MSc-II**

### **Semester 3**

The M.Sc 2 Semester 3 credit structure and syllabus were presented.

**Mandatory 1, SMCB635MJ - Environmental Microbiology-I** was presented. Dr Bhor pointed out pyrosequencing is an outdated technique and is not used for metagenomics anymore. He suggested including 'sequencing by synthesis' instead of pyrosequencing. He also enquired about shotgun cloning and the references used for metagenomics. Mr Vig replied that he uses Environmental Microbiology by Maier for metagenomics along with other basic books on genetics such as iGenetics by Peter Russell and Genetics: Analysis and Principles by Robert Brooker. Mr Vig agreed to replace 'pyrosequencing' with 'sequencing by synthesis' and requested Dr Bhor for good references. Dr Bhor suggested referring to research articles and agreed to help with the reference material in case the department is unable to search for one. Dr Surti agreed to prepare a rubric on the practical activity- Understanding a recent review or research article on horizontal gene transfer in marine microorganisms.

**Mandatory 2, SMCB636MJ- Medical Microbiology and Immunology-I** was presented. Dr Bhor suggested including Chemiluminescence immunoassay over and above ELISA in antibody-based methods. Dr Pendse expressed her concern about performing the practical hemagglutination and hemagglutination inhibition assays. Ms Patade replied that hemagglutination will be performed in the microbiology laboratory of the college whereas hemagglutination inhibition assay will be demonstrated to students by sending them to other laboratories and centers such as Venture which is in Pune.

**Elective, SMCB633E - Enzymology** was presented and all BOS members agreed that it was fine.

### **Semester 4**

**Mandatory 1, SMCB647MJ - Environmental Microbiology-II** was presented. All BOS members agreed that the syllabus was fine.

**Mandatory 2, SMCB648MJ - Medical Microbiology and Immunology-II** was presented. Dr Surti asked BOS members for their opinion on the list of vaccines approved for COVID-19. Dr Bhor said that it would be a good exposure as the list is exhaustive. He also suggested including the intranasal vaccine. Dr Bhor enquired about the whole animal experimental systems and asked whether it would include only murine animals or different types of animal systems. Ms Patade replied that murine animals, gene knockouts, and Cre LoxP systems will be covered.

**Elective, SMCB644E - Pharmaceutical Microbiology** was presented. All BOS members agreed that the syllabus was fine. However, Dr Pendse pointed out that the practical, “Determination of the air quality of a laminar air flow using gravity sedimentation method” is a repeat as it has been done at the undergraduate level. She also enquired whether anything over and above the method will be done here. Mr Vig replied that the air quality would be determined for a laminar airflow and the efficiency of the HEPA filter would be checked. At the same time, he agreed with Dr Pendse that the gravity sedimentation method is a repeat of undergraduate practical and it has been included due to the limitations of this paper. He also said that he has requested Himedia for the quotation of the biological indicator for the practical “Monitoring of the sterilization process (autoclave) using a biological indicator” and they haven’t replied yet and if it does not fit in the budget, the experiment will be removed. Dr Pendse suggested that if the department wishes to retain the practical, it should be rephrased to Quality control or validation of the HEPA filter or restructured to the way it is done in the industry. Dr Surti and Mr Vig agreed to this.

The assessment pattern for all above courses was presented

The MSc syllabus was approved/passed

Proposed by: Ms Martina Gomes

Seconded by: Dr Vikrant Bhor

#### **PhD Course work**

Dr Surti presented the details of the PhD coursework. Four students have registered. Paper 1 has the Research methodology and includes publication ethics. Coursework is conducted by external agencies. Ms Gomes had a query on the assessment of PhD course work which Dr Surti explained.

Proposed by Ms Martina Gomes

Seconded by Dr Anuradha Pendse

#### **New Diploma Course**

The department of Microbiology, Sophia College would be introducing a new forty credit course -**Diploma in Histotechnology**, in collaboration with the Centre of Oncopathology, Mumbai. The syllabus and assessment pattern for this course was presented.

It was proposed that the graduate students will get a PG Diploma while the DMLT students who have not completed their graduation will be given a certificate. The Diploma will include a project while the Certificate students will not have to do the project.

The BOS members approved the syllabus and assessment pattern for the course.

Proposed by Dr. Vikrant Bhor

Seconded by Ms Martina Gomes

The meeting ended here.

Minutes prepared by: Dr Rajbinder Kaur Dehiya and Mr Vijay Vig

PS: The FYBSc NEP course structure was changed from the academic year 2024-25. The principal recommended that the syllabi of the additional courses offered by the department be ratified over the email.

Hence the following was communicated to the Bos members via email.

The FYBSc NEP course structure has changed from the academic year 2024-25. The FYBSc students will now offer three subjects in the first year. In order to protect the workload, two Open Electives and one Value Enhancement courses need to be offered by the department.

Both these courses are cross faculty, hence the humanities students will be opting for them too.

The syllabi for all the three courses designed by the faculty of the department are attached for your perusal and approval.

It is my humble request to you all to go through them, suggest changes and ratify them over the email.

The syllabi were ratified by the BOS members after the suggestions were incorporated.






Dr Arjumanara Surti,  
Associate Professor and Head,  
Department of Microbiology,  
Sophia College for Women (Empowered Autonomous)




**DEPARTMENT OF MICROBIOLOGY**  
**SOPHIA COLLEGE FOR WOMEN (AUTONOMOUS), MUMBAI**  
**RESOLUTION FOR APPROVAL OF SYLLABI (12TH BoS, 20.4.24)**

The Syllabi for SYBSc (DSC,VSC, SEC and OEs), MSc -II (Mandatory 1, Mandatory 2, and Elective) under the proposed NEP structure 2020, PhD course work and Diploma in Histotechnology, CA and SA examination for UG/PG Course of studies for all semesters has been approved by the Board of Studies in Microbiology, SOPHIA COLLEGE FOR WOMEN (Autonomous), at the online meeting held on 20th April 2024 using zoom platform. The syllabi and examination pattern are to be implemented from the academic year 2024-2025.

**BOARD OF STUDIES**

**DEPARTMENT OF MICROBIOLOGY**

Representation	Name	Affiliation	Signature
<b>Chairperson: Head of the Department</b>	Dr.(Ms).Arjumanara Surti	Associate Professor Head, Sophia College for Women	
<b>Department faculty members</b>	Dr.(Mrs) Rajbinder Dehiya	Associate Professor, Sophia College for Women	
	Ms.Shraddha Prabhu	Assistant Professor, Sophia College for Women	
	Mr.Vijay Vig	Assistant Professor, Sophia College for Women	
	Ms Swamini Patade	Assistant Professor, Sophia College for Women - CHB appointment	

	Ms Priyanka Mithbawkar	Assistant Professor, Sophia College for Women - Ad hoc appointment	P.R.Mithbawkar.
	Ms Purva Katak	Assistant Professor, Sophia College for Women - Ad hoc appointment	
<b>VC nominee</b>	Dr Anuradha Pendse	Associate Professor and Head of Dept of Microbiology, Wilson College	
<b>Industry Expert</b>	Dr Girish Mahajan	Industry expert, Hi-Media -	granted leave of absence
<b>Subject Experts from other Universities</b>	Dr Vikrant Bhor	Expert from non-parent University (ICMR- NIRRH)	
	Dr Manju Sharma	Expert from non-parent University (ICT Matunga) -	granted leave of absence
<b>Postgraduate meritorious alumnus</b>	Ms Martina Gomes	Meritorious alumna	<b>Approved by Martina</b> <b>Approved</b>