



Minutes of the meeting of the board of studies in Microbiology department held on Thursday, May 2, 2019, at 10.00 am at B.K. Birla College of Arts, Science and Commerce, Kalyan.

The following members attended the meeting:

(1) Dr. Maninder Kaur Dhaliwal	Vice Principal, Chairman, Head and Associate Professor
(2) Dr. Ashok Wadia	Principal, Jaihind College, Mumbai
(3) Dr. Padma Deshmukh	Principal, Bunt's Anna Leela College of Commerce And Economics
(4) Dr. Dilip Khandekar	Deputy Manager, Senior Research Scientist, Mettler Toldeo Ind. Ltd. Andheri
(5) Dr. Pratibha Shah	Asst. Professor, Department of Microbiology, K.C. College
(6) Mr. Raghunath Patil	Assistant Professor
(7) Dr. Narayan Totewad	Assistant Professor
(8) Ms. Lata Patnaik	Ad-hoc Assistant Professor
(9) Ms. Nidhi Kalidas	Ad-hoc Assistant Professor
(10) Dr. Shubhangi Chitnis	Asst. Professor, MLT



The agenda for the meeting was as follows:

1. ITEM NO. 1

To consider and approve the curriculum and syllabus for F.Y.B.Sc.

2. ITEM NO.2

To consider and approve the curriculum and syllabus for S.Y.B.Sc.

3. ITEM NO.3

To consider and approve the curriculum and syllabus for T.Y.B.Sc.

4. Item No.4

To discuss the certificate course.

5. Item No.5

To propose the introduction of B.VOC. (Medical Laboratory Technology Course) and its three-year syllabus

6. Item No.6

To propose the introduction of M.Sc. Microbiology (Industrial Microbiology) and its syllabus.

Dr. Maninder Kaur Dhaliwal, Vice Principal, Head, Associate Professor, Chairperson of the meeting welcomed the members and introduced them.

1. ITEM NO. 1

To consider and approve the curriculum and syllabus for F.Y. B.Sc.

1.1 BUSMB 101- UNIT I

It was proposed that Research methodology (Scientific writing, report writing, review writing, IEEE referencing, research design); microbial biotechnology, Indian scientists; History of microbiology (tabulation) will be introduced and prokaryotic cell structure and functions, scope of microbiology will be removed.

It is resolved that Introduction to research (Research proposal writing, review writing, IEEE referencing), microbial biotechnology; Indian scientists; History of microbiology (tabulation) will be introduced and prokaryotic cell structure and functions, scope of microbiology will be removed.

1.2 BUSMB 101 – UNIT II

It was proposed that Prokaryotic Cell Structure and functions be included. It was proposed that the Biosafety topic be taught through the Assignment writing for internal examinations.

It was resolved that Prokaryotic Cell Structure and functions and Assignment on Biosafety in microbiology must be included.

1.3 BUSMB-102 -UNIT I

It was proposed that microbial genetics would be introduced, and the History of microscopy, spore and flagella staining will be removed. Flagella staining must be included in the demonstration.

It was resolved that the Introduction to Microbial Genetics shall be added and History of Microscopy; Spore and flagella staining be removed from the Unit. It was advised and resolved that the Flagella staining, and Spore staining be taught in practical for complete learning.

1.4 BUSMB-201- UNIT III

It was proposed that the problems on microbial growth (generation time) and flow cytometry will be included.

It was resolved that the problems on microbial growth (generation time) and flow cytometry will be included.

1.5 BUSMB-202- UNIT III

It was proposed that the construction, working and functions of the Electron Microscope should be added to the Unit.

It is resolved that electron microscopy must be included.

1.6 BUSMBP

It was suggested that preparation of synthetic and natural media must be included. Preparation of buffers must be included. Assignment on Indian scientists must be included

It was resolved to add the Preparation of Natural and Synthetic media; buffers must be included in the practical. Assignment on Indian Scientists must be included in the Practical studies.

2. ITEM NO.2

To consider and approve the curriculum and syllabus for S.Y.B.Sc.

2.1 BUSMB-302 UNIT II

It was proposed that biofilms would be included.

It was resolved to add the study of biofilms be included.

2.2 BUSMB-302 UNIT III

Proposal to introduce the Analytical methods in detail and soil bioremediation to be removed.

It was resolved to include in- depth learning of Analytical Methods for macromolecule estimation and to remove Soil bioremediation from the Unit.

2.3 BUSMB-303 UNIT II

It was proposed that Common infectious diseases, epidemiology, and public health awareness will be replaced by introduction to biostatistics.

It is resolved that along with introduction to biostatistics, epidemiology of infectious diseases and their control epidemiological terminology; the spread of infection, public health measures for control of disease and apply biostatistics to epidemiology related problems will be included.

2.4 BUSMB-402 UNIT III

It was proposed that instead of dairy microbiology introduce Fermentation Modes, Equipment and Instruments.

It is resolved that Fermentation Design be introduced instead of Dairy microbiology.

2.5 BUSMBP

It was suggested that statistical analysis of all the chemical estimations must be included.

It was resolved that Mean and Standard deviation be included in all Macromolecule estimations.

3. ITEM NO.3

To consider and approve the curriculum and syllabus for T.Y.B.Sc.

3.1 BUSMB-502 UNIT I

It was proposed that study of virulence mechanisms in bacteria would be replaced by advances in diagnostic techniques. Accepted.

It is resolved that diseases must be taught w.r.t to virulence factors.

3.2 BUSMB-503 UNIT I

It was proposed that maltose uptake and schematic representation of various membrane transport systems in bacteria, other examples of solute transport, assembly of proteins into membranes and protein export, bacterial membrane fusion central to many biological processes will be removed.

It was resolved that the Maltose uptake and Eucaryotic solute transport be reduced from the Unit.

3.3 BUSMB-504 UNIT I

It was proposed that introduction and preservation of culture would be removed.

It is resolved that preservation of culture must be included as a part of assignment.

3.4 BUSMB-504 UNIT II

It was proposed that media formulation, Achievement of aseptic conditions, scale up and scale down of fermentation would be removed.

It is resolved that use of waste as raw materials must be included instead of Aseptic conditions, scale up and scale down of Fermentation.

3.5 BUSMB-504 UNIT III

It was proposed that instead of Fermentation Modes, Equipements and Instruments we will introduce dairy microbiology.

It is resolved that Dairy Microbiology will be included instead of Fermentation modes, equipment, and instruments.

3.6 BUSMB-601 UNIT I

It was proposed that Methods of transformation will be removed. Accepted.

It is resolved that Transposable Elements in Prokaryotes will be included and branches of genetics will be included in self-study.

3.7 BUSMB-601 UNIT II

It was proposed that the autoradiography should be removed. Accepted

It was resolved the Autoradiography practical may be removed.

3.8 BUSMB-601 UNIT III

It was proposed that regulation & basic virology will be replaced by genetic basis of cancer.

It is resolved that regulation of lytic and lysogenic pathway of lambda phage, viral replication cycle, cancer markers will be included along with genetic basis of cancer.

3.9 BUSMB-603 UNIT I

It was proposed that Introduction to Lipids will be replaced by guest lecture synopsis. Accepted.

It is resolved that Introduction to Lipids will be replaced by guest lecture synopsis.

3.10 BUSMB-603 UNIT II

It was proposed that Nomenclature and structure of nucleotides will be removed from theory and included in presentation. Accepted.

3.11 BUSMBP

It was suggested to include strain improvement, rapid diagnostic tests and strip test methods in practicals. Bioassay must be replaced by tube-tests.

It is resolved that Practical based on strain improvement; Rapid diagnostic tests shall be included. Bioassay shall be studied as plate assay itself.

4. ITEM NO.4

To discuss the certificate course.

4.1 It was suggested that a certificate course be conducted on research methodology.

5. Item No.5

To propose the introduction of UGC- NSQF approved B.VOC. (Medical Laboratory Technology Course) and its three-year syllabus

5.1BUSMLT 101

It was proposed that the Skill component will have Human Anatomy and Physiology-I.

It was resolved that the Skill component will have Human Anatomy and Physiology-I.

5.2 BUSMLT 102

It was proposed that the Skill component will have Basic Chemistry-I

It was resolved that the Skill component will have Basic Chemistry-I

5.3 BUSMLT 103

It was proposed that the Skill component will have Hematology.

It was resolved that the Skill component will have Hematology.

5.4 BUSMLT 104

It was proposed that the General component will have Basic Instrumentation.

It was resolved that the General component will have Basic Instrumentation.

5.5 BUSMLT 105

It was proposed that the General component will have Basic Microbiology -I.

It was resolved that the General component will have Basic Microbiology -I.

5.6 BUSMLT 106

It was proposed that the General component have Environmental Sciences-I.

It was resolved that the General component will have Environmental Sciences-I.

5.6 BUSMLTP 101,102,103,104,105, 106

It was proposed to have enlisted Practical of BUSMLT 101,102, 103, 104, 105,106.

It was resolved to have enlisted Practical of BUSMLT 101,102, 103, 104, 105,106.

5.7 BUSMLT 201

It was proposed that the Skill component will have Human Anatomy and Physiology-II.

It was resolved that the Skill component will have Human Anatomy and Physiology-II.

5.8 BUSMLT 202

It was proposed that the Skill component will have Basic Chemistry-II.

It was resolved that the Skill component will have Basic Chemistry-II.

5.9 BUSMLT 203

It was proposed that the Skill component will have Immunohematology - Blood Bank.

It was resolved that the Skill component will have Immunohematology -Blood Bank.

5.10 BUSMLT 204

It was proposed that the General component have Human Health and diseases.

It was resolved that the General component will have Human Health and diseases.

5.11 BUSMLT 205

It was proposed that the General component have Basic Microbiology-II.

It was resolved that the General component will have Basic Microbiology-II.

5.12 BUSMLT 206

It was proposed that the General component have Environmental Sciences-II.

It was resolved that the General component will have Environmental Sciences-II.

5.13. BUSMLTP 201-06

It was proposed to have enlisted Practical of BUSMLT 201,202, 203, 204, 205,206.

It was resolved that to have enlisted Practical of BUSMLT 201,202, 203, 204, 205,206.

5.14 BUSMLT 301

It was proposed that the Skill component will have General Pathology.

It was resolved that the Skill component will have General Pathology.

5.15 BUSMLT 302

It was proposed that the Skill component will have Immunology and Serology.

It was resolved that the Skill component will have Immunology and Serology.

5.16 BUSMLT 303

It was proposed that the Skill component will have Biochemistry-General.

It was resolved that the Skill component will have Biochemistry-General.

5.17 BUSMLT 304

It was proposed that the General component be Human Genetics and Pharmacology.

It was resolved that the General component will be Human Genetics and Pharmacology.

5.18 BUSMLT 305

It was proposed that the General component have Foundation course- I.

It was resolved that the General component will have Foundation course- I.

5.19 BUSMLTP 301- 305

It was proposed to have enlisted Practical of BUSMLT 301,302, 303, 304, 305, 306.

It was resolved that to have enlisted Practical of BUSMLT 301,302, 303, 304, 305, 306.

5.20 BUSMLT 401

It was proposed that the Skill component will be Clinical Pathology.

It was resolved that the Skill component will have Clinical Pathology.

5.21 BUSMLT 402

It was proposed that the Skill component will have Medical Mycology and Virology.

It was resolved that the Skill component will have Medical Mycology and Virology.

5.22 BUSMLT 403

It was proposed that the Skill component will have Biochemistry-Clinical

It was resolved that the Skill component will have Biochemistry- Clinical

5.23 BUSMLT 404

It was proposed that the General component be Human Genetics and Pharmacology.

It was resolved that the General component will be Human Genetics and Pharmacology

5.24 BUSMLT 405

It was proposed that the General component be Histotechnology and Cytotechnology.

It was resolved that the General component will be Histotechnology and Cytotechnology.

5.25 BUSMLTP 401,402, 403, 404, 405

It was proposed to have enlisted Practical of BUSMLT 401,402, 403, 404, 405.

It was resolved that to have enlisted Practical of BUSMLT 401,402, 403, 404, 405.

5.26 BUSMLT 501

It was proposed that the Skill component will have Advance Techniques in Lab Diagnosis.

It was resolved that the Skill component will have Advance Techniques in Lab Diagnosis.

5.27 BUSMLT 502

It was proposed that the Skill component will have Quality control and Quality assurance.

It was resolved that the Skill component will have Quality control and Quality assurance.

5.28 BUSMLT 503

It was proposed that the Skill component will have Parasitology.

It was resolved that the Skill component will have Parasitology.

5.29 BUSMLT 504

It was proposed that the General component be Computer application in pathology lab.

It was resolved that the General component will be Computer application in pathology lab.

5.31 BUSMLTP 501, 502, 503, 504

It was proposed to have enlisted Practical of BUSMLT 501, 502, 503, 504.

It was resolved to have enlisted Practical of BUSMLT 501, 502, 503, 504.

5.32 BUSMLT 601

It was proposed that the Skill component will have Laboratory management and ethics.

It was resolved that the Skill component will have Laboratory management and ethics.

5.33 BUSMLT 602

It was proposed that the General component be Laboratory validation and accreditation.

It was resolved that the General component will be Laboratory validation and accreditation.

5.34 BUSMLT 603

It was proposed that the Skill component will have Professional training for 3 months.

It was resolved that the Skill component will have Professional training for 3 months.

5.31 BUSMLTP 601, 602, 603

It was proposed to have enlisted Practical of BUSMLT 601, 602, 603.

It was resolved to have enlisted Practical of BUSMLT 601, 602, 603.

6. Item No.6

To propose the introduction of M.Sc. Microbiology (Industrial Microbiology) and its syllabus.

6.1 M.Sc.-I syllabus

It was proposed to have the M.Sc.-I syllabus of the specialization same as M.Sc. Microbiology.

It was resolved that since the new program is specialization of M.Sc. Microbiology the syllabus of M.Sc.-I should be same.

6.2 BPSIM 301

It was proposed to offer a course on Microbial Technology with units on Fermenter design, fermentation process, Downstream processing, secondary screening.

It was resolved that Microbial Technology with units on Fermenter design, fermentation process, Downstream processing, secondary screening will be offered.

6.3 BPSIM 302

It was proposed to offer a course on Fermentation Technology – I with units on SCP and bio-insecticides Production and several Industrial Fermentations.

It was resolved that Course on Fermentation Technology – I with units on SCP and bio-insecticides Production and several Industrial Fermentations is accepted.

6.4 BPSIM 303

It was proposed to offer a course on Enzymology and Enzyme Technology with units on Basic Enzymology, Enzyme Kinetics and Inhibition, and Application of Enzymes.

It was resolved that Course on Enzymology and Enzyme Technology with units on Basic Enzymology, Enzyme Kinetics and Inhibition, and Application of Enzymes is accepted.

6.5 BPSIM 304

It was proposed to offer a course on Entrepreneurship Development and Modern Management Practices.

It was resolved that the Course on Entrepreneurship Development and Modern Management Practices is accepted.

6.6 BPSIMP 301,302,303,304

It was proposed to offer a Practical course on each of the four theory papers with list of experiments based on the theory.

It was resolved that the Practical course on each of the four theory papers with list of experiments based on the theory is accepted.

6.7 BPSIM 401

It was proposed to offer a course on Fermentation Technology – II

It was resolved that the Course on Fermentation Technology – II is accepted

6.8 BPSIM 402

It was proposed to offer a course on Food and Dairy Microbiology with units on Food borne infections, food Microbial quality and its analysis, Food safety and Dairy Microbiology

It was resolved that the Course on Food and Dairy Microbiology with units on Food borne infections, food Microbial quality and its analysis, Food safety and Dairy Microbiology is accepted.

6.9 BPSIM 403

It was proposed to offer a course on Quality Assurance and Industrial Laws

It was resolved that the Course on Quality Assurance and Industrial Laws is accepted.

6.10 BPSIM 404

It was proposed to offer a course on Industrial waste management

It was resolved that the Course on Industrial waste management was accepted.

6.11 BPSIMP 402,403,404

It was proposed to offer a Practical course on each of the threetheory papers with a list of experiments based on the theory. The BPSIMP 401 was proposed to be an internship of 30- 45 days (about 1 and a half months).

It was resolved that the Practical course on each of the four theory papers with list of experiments based on the theory is accepted. The BPSIMP 401 was accepted to be an internship of 30- 45 days (about 1 and a half months).

Sd/-

Dr. Maninder Kaur Dhaliwal,

Vice Principal, Chairman, Head and Associate Professor.

