DAV UNIVERSITY, JALANDHAR Department of Microbiology

Proceedings of the Board of Studies Meeting

An online meeting of the Board of Studies in the Department of Microbiology was held on 7th May, 2021 at 11:00 am.

Following members were present in the meeting:

1. Dr. Gurvinder Singh Kocher

(External Expert)

Principal Microbiologist-cum-Head

Department of Microbiology, Punjab Agricultural University, Ludhiana

2. Dr. Yogesh Kumar

Coordinator

Department of Microbiology, DAV University, Jalandhar

3. Dr. Rashmi Sharma

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

4. Dr. Deepak Kumar

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

5. Dr. Anil Kumar

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

It was discussed and unanimously resolved to approve the proposed course schemes and syllabi of the courses of reading for the following programmes of batch 2021:

- a) B.Sc. (Hons.) Microbiology
- b) M.Sc. (Hons.) Microbiology
- c) Ph.D. Microbiology

It was discussed and unanimously agreed upon to make following changes in the B.Sc. (Hons.) Microbiology syllabus:

- The courses 'Cell Biology' and 'Cell Biology Laboratory' (BTY121 and BTY122) have been shifted form the 6th semester core courses to 2nd semester core courses.
- ZOO154 and ZOO154 (Zoo Diversity and Zoo Diversity Laboratory) have been deleted from the generic elective courses.
- The courses BOT241 and BOT242 ('Plant Physiology and Metabolism' and 'Plant Physiology and Metabolism Laboratory') have been replaced with BTY397 and BTY398 ('Food Biotechnology' and 'Food Biotechnology Laboratory').
- The courses 'Food and Dairy Microbiology' and 'Food and Dairy Microbiology Laboratory'

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(MIC227 and MIC228) have been shifted form the 4th semester core courses to 6th semester core courses.

- The courses MIC331 and MIC332 ('Medical Microbiology' and 'Medical Microbiology Laboratory') have been replaced with MIC331A and MIC332A ('Fundamentals of Clinical Microbiology' and 'Fundamentals of Clinical Microbiology Laboratory').
- The courses 'Bioanalytical Tools' and 'Bioanalytical Tools Laboratory' (BTY361 and BTY362) have been shifted form the 2nd semester core courses to 4th semester core courses.
- The courses 'Fundamentals of Molecular Biology' and 'Fundamentals of Molecular Biology Laboratory' (BTY241A and BTY242A) have been shifted to from 4th semester core courses to 4th semester generic elective.
- The courses 'Microbial Biotechnology' and 'Microbial Biotechnology Laboratory' (MIC345 and MIC346) have been shifted to from 5th semester discipline specific course to 4th semester core course.
- The courses 'Plant Pathology' and 'Plant pathology Laboratory' (MIC347 and MIC348) have been shifted to from 6th semester discipline specific course to 5th semester discipline specific course.
- The courses 'Proteins and Enzymes' and 'Proteins and Enzymes Laboratory' (BCH218 and BCH219) have been shifted to from 4th semester generic elective to course to 6th semester elective course.
- A new practical i.e., "Biochemical characterization of bacteria" was added in the course MIC114.
- Addition of new topic "Coronavirus disease" in the UNIT-III in the course MIC331.
- Addition of new practical "Isolation of dye degrading bacteria" in the course MIC224.
- Addition of new topic in the UNIT-II "introduction to innovative food packaging techniques" in the course MIC227.
- Rearrangement of topics in the course MIC353.
- The syllabi of following courses have been updated in the course scheme and syllabi as per the BOS meetings of the respective departments: BTY361, BTY362, BTY393A, BTY394A, BTY241A, BTY242A, BTY243, BTY244, BTY395, BTY396, BTY121, BTY122, BCH101, BCH102, BCH216, BCH217, BCH218, and BCH219.
- The courses BTY393 and BTY394 ('Virology' and 'Virology Laboratory') have been replaced with BTY393A and BTY394A ('Basic Virology' and 'Basic Virology Laboratory').
- The course code BTY241 and BTY242 (Molecular Biology & Molecular Biology Laboratory) have been replaced with BTY241A and BTY242A (Fundamentals of Molecular Biology & Fundamentals of Molecular Biology Laboratory).
- Addition of new practical in BCH102 i.e., "Demonstration of Lamberts Beer law for paranitrophenol".

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It was discussed and unanimously agreed upon to make following changes in the M.Sc. (Hons.) Microbiology syllabus:

- The courses Soil and Environmental Microbiology and Soil and Environmental Microbiology Laboratory (MIC545 and MIC546) have been shifted form the 4th semester core courses to 1 semester core courses.
- The courses Biological Macromolecules and Biological Macromolecules Laboratory (BCH529 and BCH530) have been shifted form the 1st semester core courses to 1st semester open courses.
- The courses Molecular Biology and Molecular Biology Laboratory (BTY511 and BTY512) have been shifted form the 3rd semester open elective to 1st semester open elective courses.
- The courses Clinical Microbiology and 'Clinical Microbiology Laboratory' (MIC543 and MIC544) have been shifted form the 1st semester open elective to 2nd semester core courses.
- The courses'Recombinant Technology and Recombinant Technology Laboratory' (BTY521 and BTY522) have been shifted form the 4st semester to 2nd semester open elective courses.
- The course 'Bioanalytical Techniques' (BCH501) is added to 3rd semester open elective course.
- The courses Advances in Microbiology and Advances in Microbiology Laboratory (MIC547 and MIC548) have been shifted form the 2nd semester to 4th semester core courses.
- Deletion of following topics from the course code MIC531 because of repetition in the course code MIC550: "Diauxicgrowth, Maintenance of population in exponential phase, Catabolismvs. anabolism. Energy currency and reducing power of aliving cell. Fermentation vs. aerobic and anaerobic respiration".
- Deletion of the following practical's from the course code MIC532 because of repetition: "Spreadplatetechnique, Pourplatetechnique"
- Addition of practical in the course code MIC534: "Phylogenetic tree construction".
- Addition of practical in the course code BCH503:
 - Separation of restricted DNA fragments using Agarose gel electrophoresis.
 - Separation of mixture of proteins using SDS-PAGE.
 - Analysis of enzyme activity in a mixture of proteins using zymography.
- Addition of practical in the course code MIC546: "Isolation of dye degrading bacteria from environmental samples"
- Additionofnewtopic i.e., "Ethics in research" in the course code MIC540.
- Additionofnewtopic i.e., "Innovative food packaging techniques" in the course code MIC637.
- Syllabi of the following courses have been updated and added to the microbiology syllabus as per theBoS meetings of the respective departments: BTY641, BTY521, BTY522, BTY511, BTY631, BTY633, BTY681, BTY637, BCH529, BCH530, BCH501 and BCH503.

It was discussed and unanimously agreed upon to make following changes in the Ph.D. Microbiology syllabi:

- The course Advances in Genomics, Proteomics and Metabolomics' (BTY805)has been added as an elective course.
- The course 'Research and Publication ethics (MIC806)' has been introduced as a compulsory

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course.

Signaturesofmemberspresent:

1.Dr.GurvinderSinghKocher

2.Dr. Yogesh Kumar

3.Dr.RashmiSharma

4.Dr.Deepak Kumar

5.Dr.AnilRumar

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Department of Microbiology <u>Proceedings of Meeting</u>

The meeting of the Board of Studies in the Department of Microbiology was held on **22 Feb**, **2020 at 11:30 am** in Committee Room (Administrative Block), DAV University, Jalandhar.

Following members were present in the meeting:

1. Dr. Gurvinder Singh Kocher (External Expert)

Professor

Department of Microbiology, Punjab Agricultural University, Ludhiana

2. Dr. Yogesh Kumar

Assistant Professor, Department of Biotechnology

Coordinator, Department of Microbiology, DAV University, Jalandhar

3. Dr. Rashmi Sharma

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

4. Dr. DeepakKumar

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

5. Dr. AnilKumar

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

6. Mr. Rahul Mehta

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

It was discussed and unanimously resolved to approve the proposed course schemes and syllabi and course of reading for the following programmes of Batch 2020:

- a) B.Sc. (Hons.) Microbiology
- b) M.Sc. (Hons.) Microbiology
- c) Ph.D Microbiology

It was discussed and unanimously agreed upon to make following changes in the B.Sc. (Hons.) Microbiology syllabi:

- a. In 1st semester, 'Membrane Biology and Bioenergetics' and 'Membrane Biology and Bioenergetics Laboratory' (BCH217 and 218) were added in generic elective list.
- b. In 2nd semester, 'Physical Chemistry–II' and 'Physical Chemistry–II Laboratory' (CHE117A and CHE118A) were added in generic elective list.

- c. In 4th semester, 'Proteins and Enzymes' and 'Proteins and Enzymes Laboratory' (BCH218 and BCH219) were added in generic elective list.
- d. In 5th semester, 'Genetics' and 'Genetics Laboratory' (BTY231 and BTY232) were replaced with 'Biostatistics and Bioinformatics' and 'Biostatistics and Bioinformatics Laboratory' (BTY395 and BTY396) in discipline specific elective list.
- e. In 6th semester, 'Genomics and Proteomics' and 'Genomics and Proteomics Laboratory' (BTY363 and BTY 364) were added in discipline specific elective list.
- f. Addition of new topics in MIC113, MIC227, MIC261, MIC333A, MIC346, MIC221, MIC225, MIC353, MIC335A and MIC336A.
- g. Latest edition of the books is suggested readings should be added wherever applicable.

It was discussed and unanimously agreed upon to make following changes in the M.Sc. (Hons.) Microbiology syllabi:

- a. In 3rd semester, Environmental Biotechnology (BTY631) and Plant Biotechnology (BTY633) were added in open elective list.
- b. In 4th semester, Enzymology (BTY637) was added in open elective list.
- c. Addition of new topics in MIC531, MIC533, MIC540, MIC541, MIC543, MIC545, MIC631 and MIC637.
- e. Latest edition of the books is suggested readings should be added wherever applicable.

It was discussed and unanimously agreed upon to approve the proposed addition of Value Added Course Scheme in the discipline of Microbiology. The outline of syllabi and course scheme for following Value added Courses were approved: Biofertilizer Technology (MIC401), Public Health Microbiology (MIC402), Techniques in Microbiology (MIC403) and Waste Management (MIC404)

Signatures of members present:

1. Dr. Gurvinder Singh Kocher

2.Dr. Yogesh Kumar

3. Dr. Rashmi Sharma

4. Dr. Deepak Kumar

5. Dr. Anil Kumar

6. Mr. Rahul Mehta

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Department of Microbiology Proceedings of Meeting

The Meeting of the Board of Studies in the Department of Microbiology was held on 25th November, 2017 at 11:00 am in Committee Room, Administrative Block, DAV University, Jalandhar.

Following members were present in the meeting:

1. Dr. Harvinder Singh Saini (External Expert)

Professor

Department of Microbiology, Guru Nanak Dev University, Amritsar

2. Dr. Abhishek Walia (Coordinator)

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

3. Dr. Rashmi Sharma

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

4. Dr. Chayanika Putatunda

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

5. Mr. Abhishek Thakur

Assistant Professor

Department of Microbiology, DAV University, Jalandhar

Following agenda was discussed and resolved:

Agenda Item-1

It was discussed and unanimously resolved to approve the proposed outline of tests, syllabi and course of reading for the following programs of Batch 2018:

- a) B.Sc. (Hons.) Microbiology
- b) M.Sc. (Hons.) Microbiology

Agenda Item-2

It was discussed and unanimously resolved to approve the proposed outline of tests, syllabi and course of reading for the following program of Batch 2017:

a) Ph.D Microbiology

Agenda Item-12

MIC347 (Plant Pathology) needs to be modified as per the requirement of UG students as suggested by external expert.

Agenda Item-13

Course BCH515 (Advanced Concepts in Metabolism) should be replaced with new course entitled (MIC550) Microbial Physiology and Metabolism as suggested by external expert.

Agenda Item-14

Course MIC545 (Soil and Environmental Microbiology) and MIC546 (Soil and Environmental Microbiology Laboratory) needs to be incorporated as core course in semester 2 by replacing BTY521 (Recombinant DNA Technology) and BTY522 (Recombinant DNA Technology Laboratory) as suggested by external expert.

Agenda Item-15

Course MIC633 (Food and Industrial Microbiology) needs to be split into two courses i.e. MIC637 (Food Microbiology) and MIC641 (Industrial Microbiology) and Course MIC634 (Food and Industrial Microbiology laboratory) needs to be split into two i.e. MIC638 (Food Microbiology Laboratory) and MIC642 (Industrial Microbiology Laboratory) and needs to be incorporated in semester 3 as suggested by external expert.

Agenda Item-16

MIC631 (Immunology) and MIC632 (Immunology Laboratory) change from course type core to elective and MIC641 (Industrial Microbiology) and MIC642 (Industrial Microbiology Laboratory) change from course type elective to core as suggested by external expert.

Agenda Item-17

Course BTY642 (Genomics, Proteomics and Metabolomics) and BTY656 (Genomics, Proteomics and Metabolomics Laboratory) needs to be replaced with core course i.e. BTY521 Recombinant DNA Technology) and BTY522 (Recombinant DNA Technology Laboratory) as suggested by external expert.

Signatures of members present:

1. Dr. Harvinder Singh Saini

2. Dr. Abhishek Walia

3. Dr. Rashmi Sharma

4. Dr. Chayanika Putatunda

5. Mr. Abhishek Thakur