

DAV University, Jalandhar  
Department of Biotechnology

Proceedings of Board of Studies Meeting

A meeting of the Board of Studies in the Department of Biotechnology was held on 19<sup>th</sup> May, 2024 at 2.00 PM in an online mode

Following members were present in the meeting:

1. Dr. Kashmir Singh (External Expert)  
Chairperson  
Department of Biotechnology, Panjab University, Chandigarh
2. Dr. Praveen Gulera  
Assistant Professor  
Department of Biotechnology, DAV University, Jalandhar
3. Dr. Jakhmir Singh  
Assistant Professor  
Department of Biotechnology, DAV University, Jalandhar
4. Dr. Yogesh Kumar  
Assistant Professor  
Department of Biotechnology, DAV University, Jalandhar
5. Dr. Shivika Sharma  
Assistant Professor  
Department of Biotechnology, DAV University, Jalandhar

1. It was discussed and unanimously resolved to approve the proposed outline of schemes and syllabi of the courses of reading for the following programs of Batch 2021:

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

2. It was discussed and unanimously agreed upon post-facto approval of changes in the course codes and credits in syllabi of M.Sc. (Hons.) Biotechnology (Session 2019-20 and 2020-21)

- a) Environmental Biotechnology: BTY631A
- b) Environmental Biotechnology Laboratory: BTY632A
- c) Fermentation and Bioprocess Technology: BTY525A
- d) Fermentation and Bioprocess Technology Laboratory: BTY526A
- e) Food Biotechnology: BTY643B: 4 Credits

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# DAV University, Jalandhar

## Department of Biotechnology

3. Addition of course Research and Publication Ethics, BTY803, 4 Credits to the Ph.D programme.

4. It was discussed and unanimously agreed upon to make following changes in the syllabi with respect to previous year:

### B.Sc (Hons.) Biotechnology

- i) Edition of text books and reference books were updated wherever applicable
- ii) The course MIC333A Basic Immunology and MIC334A Basic Immunology Laboratory was added as Generic Elective in Semester II.
- iii) Course content of BTY391A Animal Biotechnology was updated. The topic In Vitro Fertilization was added to Unit III.
- iv) Course contents of BTY383A Introduction to Enzymology was updated and revised. In Unit III, Allosteric Enzyme Models: concerted and sequential models have been revised. In Unit IV, the topic Industrial Important Enzymes have been added.
- v) Course content of BTY123 Fundamentals of Cell Biology was updated. The topics protein types and carbohydrates, transport across the membrane: simple diffusion, osmosis, facilitated transports, active transport were added to Unit I. The topics secretory and transmembrane protein synthesis, hypothesis of transport across golgi cisternae; lysosome, autophagic pathway; mitochondria, ATP synthesis; structure of ATP synthetase, binding change mechanism were added to Unit II. Protein import from cytoplasm to nucleus, cyclins-CdKs, checkpoints added to Unit III. The topics coated proteins, COPI, COPII and clathrin coated vesicular transport added to Unit IV.
- vi) Content of BTY124 Fundamentals of Cell Biology Laboratory updated. II. The practical Isolation of chloroplast was added.
- vii) Course contents of BTY361 Bioanalytical Tools was revised and updated. The topic PCR. Principle, types and applications added to Unit IV
- viii) The practical Polymerase chain reaction added to BTY361 Bioanalytical Tools Laboratory.
- ix) The topics physical, chemical, biological synthesis, Atomic force microscopy, electron microscopy, FTIR added to Unit I.
- x) Introduction of BTY399 Medical Microbiology as Skill Enhancement Course in Semester III and IV.

### M.Sc. (Hons.) Biotechnology

i) Course codes and course names of following courses in M.Sc. (Hons.) Biotechnology syllabus was changed as follows

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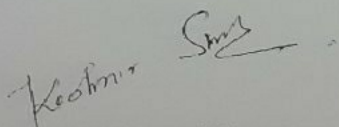
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# DAV University, Jalandhar

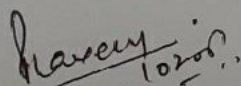
## Department of Biotechnology

- a) Food Biotechnology: BTY645, 3 credits
- b) Environmental Biotechnology: BTY631A, 4 credits
- c) Environmental Biotechnology Laboratory: BTY632A, 2 credits
- d) Fermentation and Bioprocess Technology: BTY525A, 3 credits
- e) Fermentation and Bioprocess Technology Laboratory: BTY526A, 1 credit

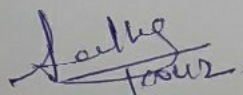
- ii) Edition of text books and reference books were updated wherever applicable.
- iii) Course contents of BTY645 Food Biotechnology was updated and restructured. History of Food Biotechnology and Microorganisms in food fermentation was added to Unit I.
- iv) Course contents of BTY527B Bioanalytical Techniques was updated and restructured. Reverse transcription polymerase chain reaction (RT-PCR) topic was added to Unit I. Fast protein liquid chromatography (FPLC) technique was added to Unit III.
- v) Course contents of BTY637 Enzymology was updated and restructured. The topics zymogens and ribozymes were added to Unit I.



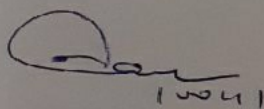
Dr. Kashmir Singh (External Expert)



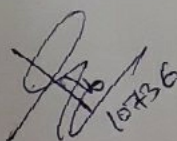
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