



**DAYANANDA SAGAR UNIVERSITY  
SCHOOL OF BASIC AND APPLIED SCIENCES  
DEPARTMENT OF BIOLOGICAL SCIENCES**

**DOCUMENT TITLE:**

'Board of Studies Meeting' regarding approval of syllabus for 3<sup>rd</sup> and 4<sup>th</sup> year of B.Sc. HONS. Program (complied with UGC guidelines) and modification/revision of course matrix for the next batch for B.Sc. HONS

School of Basic and Applied Sciences, DSU

**DATE:** 16-08-2023

**TIME:** 9.30 AM

**VENUE:** Online mode (Google meet)

**AGENDA OF THE MEETING:**

1. Approval for B.Sc. HONS syllabus (4<sup>th</sup> to 8<sup>th</sup> semesters) as per the approved course matrix for the on-going batch (2022-2023).
2. Approval for the revision of course matrix and corresponding syllabi of first two semesters B.Sc. HONS program (2023 -2024 onwards).

**BOS MEMBERS:**

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Sincerely

Dr. Sandeep Kumar  
Chairman: BCB  
DU, DU





DAYANANDA SAGAR UNIVERSITY  
SCHOOL OF BASIC AND APPLIED SCIENCES  
DEPARTMENT OF BIOLOGICAL SCIENCES

**DOCUMENT TITLE:** 11<sup>th</sup> Board of studies meeting of SBAS-DSU  
'Board of Studies Meeting' regarding approval of syllabus for 4<sup>th</sup> to 8<sup>th</sup> semesters of  
B.Sc. HONS. Program (2022-2023) (as complied with UGC guidelines) and  
modification-revision of course matrix and the syllabus for the first two semesters of  
the for B.Sc. HONS (2023-2024)

School of Basic and Applied Sciences, DSU

**DATE:** 16-08-2023

**TIME:** 9.30 AM

**VENUE:** Online mode :

Google Meet joining info link: <https://meet.google.com/gag-bjef-fla>

**AGENDA OF THE MEETING:**

1. a. Approval for B.Sc. HONS syllabus (4<sup>th</sup> to 8<sup>th</sup> semesters) as per the approved course matrix for the on-going batch (2022-2023).  
b. Approval for fine-tuning of title and course code for electives in B.Sc. HONS syllabus as per the approved course matrix (2022-2023).
2. Approval for the revision of course matrix and corresponding syllabi of first two semesters of B.Sc. HONS program (2023 -2024 onwards).

**BOS MEMBERS:**

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**List BOS Members – Attended**

1. Dr. Sunil More
2. Dr. K. N. Balaji
3. Dr. P Kondaiah
4. Dr. K. R. Siddalinga Murthy
5. Dr. Anirudha Lakshminarasimhan
6. Dr. Sundaram P M
7. Prof V. Krishnamurthy
8. Dr. Seema Tharannum
9. Dr. Aneesafasim
10. Dr. Susweta Das
11. Dr. Santosh Choudhari

**BOS Members - Not Attended**

1. Dr. Harish Pai



**DAYANANDA SAGAR UNIVERSITY**  
**SCHOOL OF BASIC AND APPLIED SCIENCES**  
**DEPARTMENT OF BIOLOGICAL SCIENCES**

**DOCUMENT TITLE: 11<sup>th</sup> BOS meeting of SBAS**

'Board of Studies Meeting' regarding approval of syllabus for 3<sup>rd</sup> and 4<sup>th</sup> year of B.Sc. HONS. Program (complied with UGC guidelines) and modification/revision of course matrix for the next batch for B.Sc. HONS. School of Basic and Applied Sciences. DSU

**DATE:** 16-08-2023

**TIME:** 9.30 AM

**VENUE:** Online mode :

Google Meet joining info link: <https://meet.google.com/gqg-bjcf-flt>

**Members attended the BOS meeting:**

| Sl. No | Name of members                | Designation     | Signature          |
|--------|--------------------------------|-----------------|--------------------|
| 1      | Dr. Sunil More                 | Chairman        | Attended virtually |
| 2      | Dr. K. N. Balaji               | External member | Attended virtually |
| 3      | Dr. P Kondaiah                 | External member | Attended virtually |
| 4      | Dr. K. R. Siddalinga Murthy    | External member | Attended virtually |
| 5      | Dr. Anirudha Lakshminarasimhan | External member | Attended virtually |
| 6      | Dr. Sundaram P M               | External member | Attended virtually |
| 7      | Prof. V. Krishnamurthy         | Internal member | Attended virtually |



|    |                       |                 |                    |
|----|-----------------------|-----------------|--------------------|
| 8  | Dr. Seema Tharanum    | Internal Member | Attended virtually |
| 9  | Dr. Ancesa Fasin      | Internal member | Attended virtually |
| 10 | Dr. Susweta Das       | Internal member | Attended virtually |
| 11 | Dr. Santosh Choudhari | Internal member | Attended virtually |

Other Invitees attended:

1. Dr.Sangeetha Gowda ( Asst Prof,Chemistry)
2. Dr. Ganapati Bhat (Asst Prof Biochem.)
3. Dr. Dinesh S M (Asst Prof Genetics)
4. Dr. Manjula N G(Asst Prof Micrbio.)
5. Dr. Ajay Nair (Asst Prof Biochem.)
6. Dr. Archana S Rao (Asst Prof Microbio.)
7. Dr. Vineetha M S (Asst Prof Biotech.)
8. Dr. Triveni K (Asst Prof Biotech.)
9. Dr. Arpi Dey (Asst Prof Biochem.)
10. Dr. Bhavya J (Asst Prof Biochem.)
11. Dr. Pronoma Biswas (Asst Prof Genetics.)
12. Ms. Bibi Ayesha (Alumni representative)
13. Ms. Asimta Saha ( Student representative)

Proceedings of the 11<sup>th</sup> B.O.S Meeting, School of Basic and Applied Sciences, Dayananda Sagar University, held on 16.08.2022

'Board of Studies' meeting was held on 16<sup>th</sup> August 2023 via virtual mode regarding the approval of syllabus for 4<sup>th</sup> to 8<sup>th</sup> semester of B.Sc. Hons. Program (2022-2023) and approval of new B.Sc. HONS. Program (2023-2024) course matrix and syllabus for the first two semesters (complied as per UGC guidelines).

- The meeting was held online on 16-08-2023 and started at 9.30 AM
- The BOS Chairman, Dr Sunil S More welcomed all the members of the board and initiated the meeting.

- The BOS Chairman briefed the agenda of the current meeting.
- The Board Members, after critical deliberations on the program and courses, suggested appropriate corrections in curriculum on each agenda.

#### AGENDA I:

##### 1a. Approval for BSc. Hons. 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> semester syllabus (ANNEXURE 1a)

The 4 to 8<sup>th</sup> semesters syllabi of the NEP program were presented in detail before the BOS committee during the meeting.

After critical deliberations, BOS members suggested few changes in the courses as mentioned below:

- The BOS members suggested to rectify all the grammatical errors in the document.
- In the course "Human Anatomy and pathology" systemic diseases topic was added.
- In the course "Human physiology", the experiments were reshuffled and placed in sequential manner.
- In the course "Metabolism-II" the experiment "Estimation of creatinine" was reframed to "Estimation of creatinine by Fiske Subbraow method".
- In the course, Bioethics and IPR, the title of module 2 was changed to "Intellectual property rights and regulations".
- In the course- Enzymology the topics transcriptional and translational regulation were removed and enzyme inhibitors as drugs topic was included.
- In the course, Immunology the topic- induced innate responses was changed to induced innate immune responses.
- In the course "Toxicology" the topic- toxicity of male and female was changed to gender specific diversity of toxins.
- The course title "Basic principles of multi-omics" was changed to "Principles of Multi-omics". In module 4 "Omics-applications and future perspectives was included".
- In "Genetic engineering" the topics GFP/RFP was included.
- In Signal transduction subject Introduction to hormones, autocrine, paracrine and endocrine signalling was added
- For every major papers of 6C, a total of 07 experiments were suggested by the BOS members in place of 06 experiments and the experiment titles were reframed and changes were incorporated in the revised syllabus.
- With respect to Module 3 of course Immunology (22BT3501), the sequence of content was reshuffled as APC, Target cell, MHC followed by antigen processing and presentation instead of antigen processing and presentation followed by APC, Target cell, MHC.

- In place of primary cell culture from fibroblast cells/liver cells/chick embryo experiment in animal biotechnology (22BT3502), preparation of hepatocyte experiment was suggested and the changes were incorporated.
- In the course Food Technology (22BT4701), Food adulterations have been incorporated and the experimental component of analysis of coffee and tea has been removed.
- In the course Medical Biotechnology (22BT4702) Module I, Parasitic diseases-Amoebiasis and malaria were included. Under the component of viral diseases-AIDS was replaced with Corona. Under Module II, transcriptome analysis has been introduced in place of microarray. In Module III under protein therapeutics, in place of asperginase, glucocerebrosidase has been suggested and CRISPR Cas9 applications in genetic disorders were suggested in place of breast cancer.
- In course Agriculture Biotechnology (22BT4703), Integrated pest management-Insect pheromones were included under Biopesticides of Module I.
- In Plant physiology and Biochemistry minor corrections were suggested.
- The syllabus of Genetics course was suggested to be restructured and revised completely. The corrections are as mentioned below-
  - The modules 2, 3 and 4 in Cytogenetics were revised to remove redundancy as per the suggestions of the Board. The topics banding techniques and chromosome breakage analysis were added.
  - In Developmental Biology, specific developmental theories were added in Module 1 to enrich the content. Reproductive biology content was removed from Module 3 and topics related to regenerative medicine were added.
  - The syllabus for Quantitative Genetics was completely revised to eliminate redundancy and establish a distinct identity from Population Genetics.
  - Module 3 was removed from the Microbial Genetics curriculum and a new module focusing on Microbiome was added.
  - Human Genetics syllabus was revised and Genetic Counselling was added in the syllabus.
  - In Behavioural Genetics the topic Brain ischemia was removed and *Drosophila* behaviour was added.
  - In Complex Traits and Gene Networks, the topic ENCODE was removed.
- The minor corrections were suggested in Microbiology syllabus.
- The chemistry syllabus was approved with minor changes.

**1b. Approval for fine-tuning of course code and course name for the minor papers.**

- The BOS members after deliberations approved the changes.  
In Biochemistry honours program minor paper Enzymology to Enzyme and protein chemistry with change in course code from 22BY3601 changed to 22BY3603.
- In Biotechnology honours under the minor courses offered the course titles Plant Biotechnology (22BT2404), Animal Biotechnology (22BT3503) and Industrial



Biotechnology (22BT3603) was renamed as Plant Biotechnology (Minor), Animal Biotechnology (Minor) and Industrial Biotechnology (Minor), respectively.

- The minor course titles Inorganic Chemistry (22CY2401), Physical Chemistry (22CY3503) and Organic Chemistry (22CY3603) were renamed as Coordination Compounds, Physical Chemistry for Biological Sciences (22CY3503) and Organic Chemistry for Biological Sciences (22CY3603), respectively.

**AGENDA II:** Approval for the revision of course matrix and corresponding syllabi of first two semesters B.Sc. HONS program (2023 -2024 onwards) (**ANNEXURE 2**).

After discussions, we have incorporated the advice of BOS committee with some minor modifications suggested as follows:

- In cell biology paper cell death pathways were removed and basics of cell signalling pathways are introduced.
- In Biological Chemistry paper - Module 1 the suggested new topic - Oxygen-Haemoglobin Dissociation Curve has been included.
- In Module 2- the example of the topic First Law of thermodynamics (oxidation of fat) was changed to example-oxidation of tristearin.
- In Module 5- the topic trans-esterification reaction was included.
- In practical session, 2 experiments were included.

All the suggested modifications/changes were incorporated during the time of BOS meeting.

**BOS Committee members,**

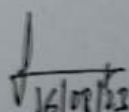
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10. Dr. Susweta Das
11. Dr. Santosh Choudhari

We thank all the BOS members, for spending their valuable time and giving constructive inputs for the advancement of the curriculum.

Date: 16-08-2023  
Place: Bangalore



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Professor and Dean  
SBAS-DSU

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