

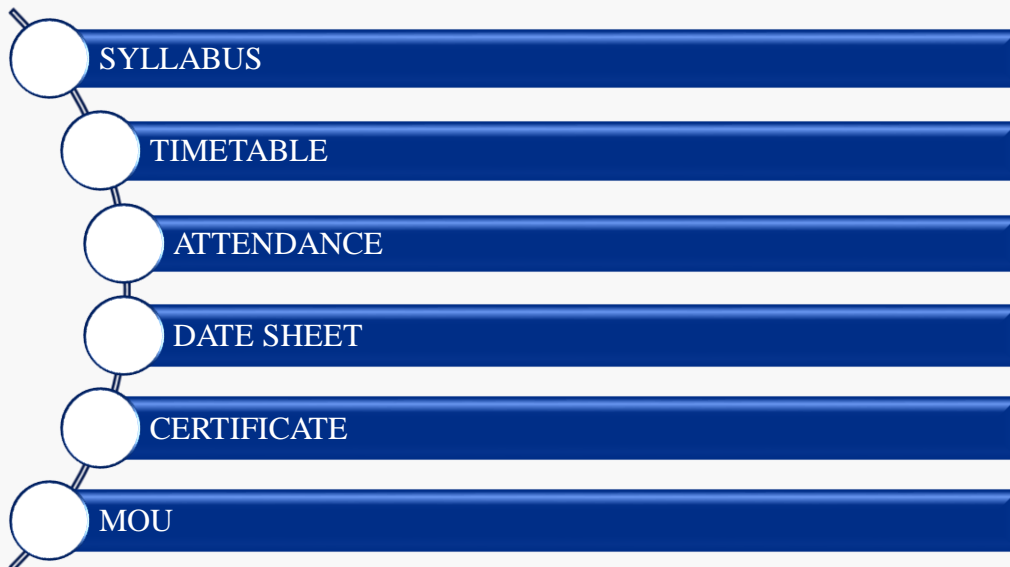


St. Bede's College Shimla
(UGC-NAAC "A+" Grade Re-Accredited)

CRITERION 1

1.2.1&1.2.2

BIODIVERSITY





St. Bede's College Shimla

Syllabus

1. Basic Concepts of Biodiversity

Introduction to the Concept of Biodiversity. Levels of biological Diversity. Biogeographic Zones of India. Global Biodiversity Hotspots. Biodiversity Hotspots in India. India as a Mega-Biodiversity Nation. Threats to Biodiversity and Causes of Biodiversity Loss. Biodiversity Conservation. Biodiversity Services. Taxonomy and its Relevance to Biodiversity Studies,

2. Floral Diversity

Introduction to Various Plant Groups (Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms). Taxonomy-A Brief Introduction to plant nomenclature. Brief Introduction to Plant Classification. Plant Identification (Taxonomic Literature, Herbaria, Virtual Herbaria, Botanical Gardens, Identification Keys, etc.). Online Plant Databases. Phytogeographical Regions of India. Vegetation Types in India with Special reference to Himachal Pradesh. Floral Diversity in Himachal Pradesh. IUCN Threat Categories. Endemism in Indian Flora with special emphasis on Flowering Plants and the Himalaya

3. Faunal Diversity

Faunal diversity profile of India (focusing on specific ecosystems aquatic and terrestrial and also biogeographic regions). Animal distribution and zoogeography. Species concepts, Morphospecies/ Recognisable Taxonomic Units (RTUs), Molecular taxonomy, Integrative taxonomy. Taxonomic collections, descriptions, identification keys, species checklists and their relevance. Concept of Rare, Threatened and Endangered fauna. Ecologically and economically important fauna- both beneficial and harmful

4. Ecosystems

Ecosystems-Concept and Structure. Energy Flow in Ecosystems, Food Chains and Webs. Ecosystem Services. Major Ecosystems with Special reference to Himachal Pradesh: Terrestrial (Forest, Grasslands) Ecosystem, Wetlands Ecosystem, Mountain Ecosystem, Cold Desert Ecosystem

5. Field Surveys, Collection, Preservation, Identification and analysis of Flora & Fauna

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Field surveys, collection, preservation and curation of fauna, with special focus on major invertebrate and vertebrate phyla. Labelling and documenting collection data, cataloguing, databasing and maintenance of collections/museum specimens. Morphology of flowering plants (vegetative and reproductive parts) and acquainting botanical terms. Method of dissecting floral parts and observation. Introduction to local flora with their local and botanical names. Collection of plants and field data. Method of poisoning, mounting and preservation of plant specimens (herbarium/museum). Incorporation and curation of specimens (herbarium/museum). Method of identification using Floras/Revisions/Monographs. Preparing artificial keys for identification

6. Economic Plant Resources

Cereal and Pseudo-cereal Crops of Himachal Pradesh. Common Pulse Crops of Himachal Pradesh. Vegetable Crops and Wild Vegetables in H.P. Fruit Crops and Wild Edible Fruits of Himachal Pradesh. Medicinal Plants with Special Reference to Himachal Pradesh.

7. Traditional Knowledge/ Ethnobiology

Concept of Traditional Knowledge and Ethnobotany. Traditional Indian Medicinal Systems. Medicinal Plants in Folklores in Himachal Pradesh. Indigenous Tribal Communities in Himachal Pradesh and Their Traditional Knowledge with special reference to plants. Role of Ethnobotany in Modern Medicine. Biopiracy and Intellectual Property Rights. Protection of Interests of Ethnic Groups and Sharing of Wealth (with Ethnic Communities) Concept with examples. Sacred Groves and Plant Conservation

8. Biodiversity for Sustainable Development

Biological resources, Forest and Biodiversity Laws in India. Institutional framework under the Biological Diversity Act 2002. Role of State Biodiversity Boards and Biodiversity Management Committees in under the Biological Diversity Act 2002. Methodology and preparation of PBR. Fauna and Flora documentation (wild as well as domesticated, including aquatic-both freshwater and marine). Traditional knowledge documentation in PBR. Landscape, lifescape, waterscape and soil types documentation in PBR. Data collection on socio-economic and other institutions/facilities.

9. Threats to Biodiversity and Conservation of Biodiversity

Major threats to biodiversity and impact of pollution on biodiversity components. In-situ and ex-situ conservation, keystone species, IUCN Threatened Categorization. Protected Area Network in India and Himachal Pradesh.


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Timetable (2021-2022)

ST. BEDES' COLLEGE, SHIMLA
TIME-TABLE FOR ADD ON COURSES FIRST YEAR
2021-22

Date: September 13, 2021

COURSE NAME	DAY	TIME	ROOM
TALLY-GROUP 1	MONDAY	2:30 PM-3:30 PM	COMPUTER LAB 2
	WEDNESDAY	2:30 PM-3:30 PM	COMPUTER LAB 2
TALLY-GROUP 2	MONDAY	3:15PM -4:15 PM	COMPUTER LAB 2
	SATURDAY	1:45 PM-2:45 PM	COMPUTER LAB 2
WEB PAGE DESIGN	MONDAY	3:15 PM -4:15 PM	COMPUTER LAB 1
	SATURDAY	1:45 PM-2:45 PM	COMPUTER LAB 1
FRENCH	MONDAY	3:15 PM -4:15 PM	B8
	SATURDAY	1:45 PM-2:45 PM	B8
BIODIVERSITY	MONDAY	3:15 PM -4:15 PM	B9/ONLINE
	SATURDAY	1:45 PM-2:45 PM	B9/ONLINE

Note:

- Tally Group I: students of B.Com with roll no 213002- 213071.
- Tally Group II: students of BBA, BSC, BCA, BA GEOPGRAPHY (H), BA ENGLISH (H), AND BA PASS COURSE.
- All Add on courses will commence from September 13, 2021 except Biodiversity course.
- Classes will held in both online and offline mode.

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St. Bede's College Shimla

Attendance (2021-2022)

Daily Attendance Register of St. Bede's College for the month of _____ year 2021-22

Class: 2nd Year

Subject: Biochemistry

Paper: _____

CLASS _____
SUB _____
PAPER _____
MONTH _____
YEAR _____

Table with columns: Serial Number, Name of Student, Registration No., Previous Attendance, DATES (October, November, December, February, March/April), No. of Lectures, Attendance. Rows include students like Manvi Sharma, Anshika, Kallika Sam, etc.

Dated: _____

Lecturer's Signature _____
Lecturer Name _____

Dated: _____
Received By: _____

Principal's Signature _____
Clerk's Signature _____

Teacher's Name: X M. Thakur
Teacher's Signature: _____



St. Bede's College Shimla

Date Sheet (2021-2022)



*Add on Courses
St. Bede's College, Shimla*

NOTICE

APRIL 1, 2022

DATESHEET FOR ADD-ON COURSES

COURSE NAME	CLASS	TIME	MODE
BIODIVERSITY	FIRST YEAR	APRIL 4, 2022 3:00 PM – 4:00 PM	ONLINE ON MS-TEAMS

Neha
1/4/2022
NEHA WALIA
(Coordinator)



St. Bede's College Shimla



*Add on Courses
St. Bede's College, Shimla*

NOTICE

APRIL 1, 2022

DATESHEET FOR ADD-ON COURSES

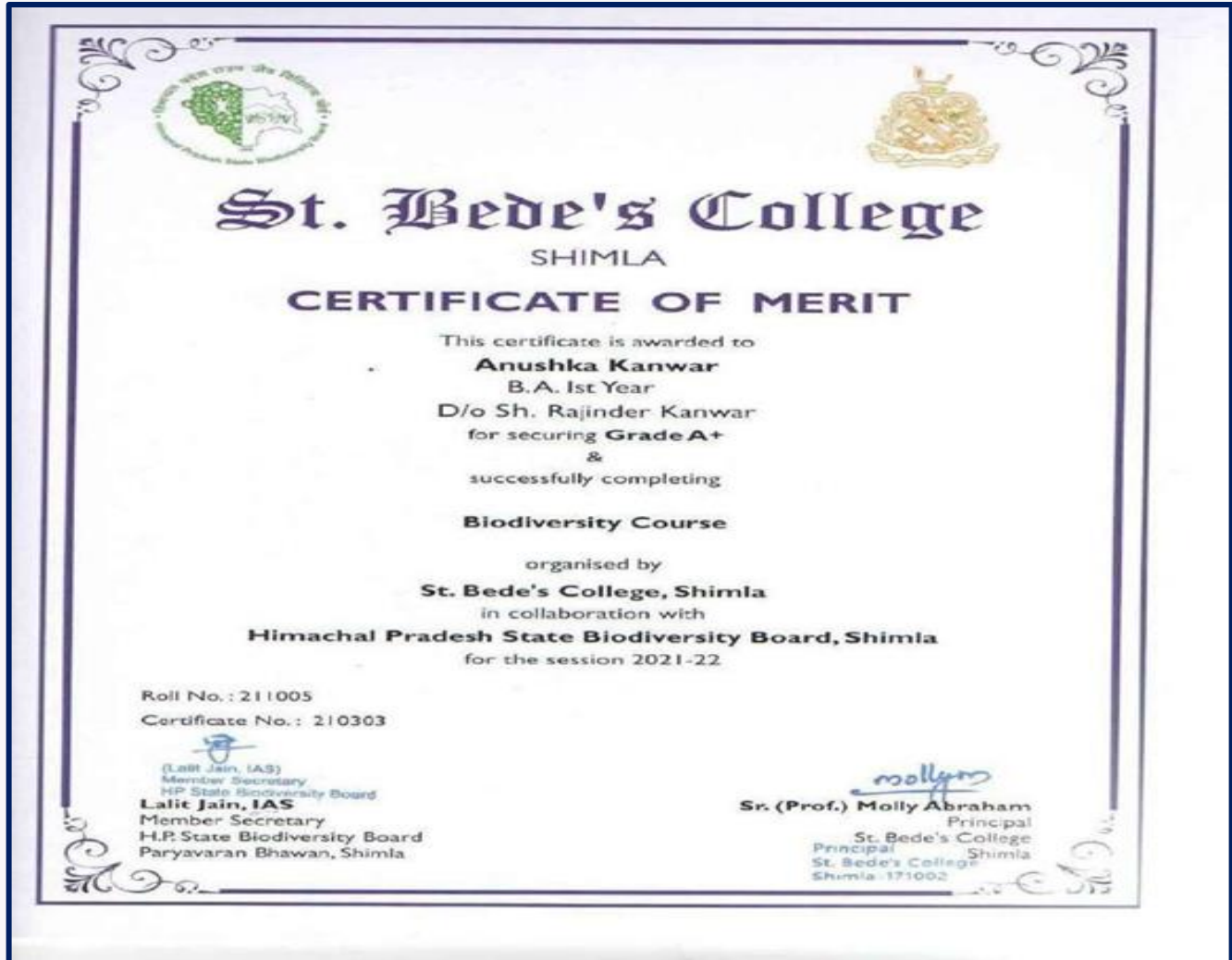
COURSE NAME	CLASS	TIME	MODE
BIODIVERSITY	SECOND YEAR	APRIL 4, 2022 3:00 PM – 4:00 PM	ONLINE ON MS-TEAMS

Neha
NEHA WALIA
(Coordinator)



St. Bede's College Shimla

Certificate (2021-2022)




The certificate is framed with a decorative border. At the top left is the logo of the Himachal Pradesh State Biodiversity Board, and at the top right is the coat of arms of India. The text is centered and reads:

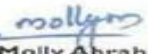
St. Bede's College
SHIMLA
CERTIFICATE OF MERIT

This certificate is awarded to
Anushka Kanwar
B.A. Ist Year
D/o Sh. Rajinder Kanwar
for securing **Grade A+**
&
successfully completing
Biodiversity Course

organised by
St. Bede's College, Shimla
in collaboration with
Himachal Pradesh State Biodiversity Board, Shimla
for the session 2021-22

Roll No. : 211005
Certificate No. : 210303


(Lalit Jain, IAS)
Member Secretary
HP State Biodiversity Board
Lalit Jain, IAS
Member Secretary
H.P. State Biodiversity Board
Paryavaran Bhawan, Shimla


Sr. (Prof.) Molly Abraham
Principal
St. Bede's College
Shimla
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