

Meeting Notice

Principal,  
S.P. College

**Subject: Board of Studies Meeting in the subject of Botany under NEP 2020.**

Sir,

The B.O.S meeting of Faculty of Sciences in the discipline has been fixed to be held at S.P College (School of Sciences) in the department of Botany on 14<sup>th</sup> of July 2022 at 12:30 PM. The Principals of Concerned College are accordingly requested to kindly inform the concerned B.O.S members to attend the meeting on the scheduled date and time.

S.No	Name of Member	Place of Posting
1.	Prof. Wilayat Rizvi	S.P. College, Srinagar
2.	Prof. Nighat Amin	G.W.C. M.A .Road ,Srinagar
3.	Prof. Shafiqa Muzaffar	G.W.C. M.A .Road, Srinagar
4.	Dr.Abdul Rashid Wani	GDC, Allochi Bagh
<del>5.</del>	Prof. Rubaya Sultan	A.S College, Srinagar
6.	Prof. Nusrath Sayeed	G.W.C. M.A .Road ,Srinagar
7.	Dr. Yaseen Maqbool	S.P. College, Srinagar
<del>8.</del>	Prof. NahidatunNisa	A.S College, Srinagar
9.	Dr ShaistaQadir	G.W.C. M.A .Road ,Srinagar
10.	Dr. Anees Fatima	G.W.C. M.A .Road ,Srinagar
11.	Prof. Suzana Bashir	G.W.C. M.A .Road ,Srinagar
12.	Prof. Mukhtar Ahmed Bhat	A.S College, Srinagar
<del>13.</del>	Dr. Kousar Parveen	A.S College, Srinagar
<del>14.</del>	Dr. Hilal Ahmad Lone	A.S College, Srinagar
15.	Dr. Afroza Akhter	AAAMDC, Bemina
16.	Dr. Mohd Rafiq Wani	AAAMDC, Bemina
17.	Dr. Shabana Gulzar	G.W.C. M.A .Road, Srinagar
18.	Prof.TabasumNazirQadri	S.P. College, Srinagar
<del>19.</del>	Prof. Parvaiz Ahmed Dar	A.S College, Srinagar
20.	Prof. Nighat Jan Dijoo	S.P. College, Srinagar
21.	Prof. Saduf Nisar	S.P. College, Srinagar
22.	Dr. ShabanaAslam	S.P. College, Srinagar
23.	Prof. FahimaGul	S.P. College, Srinagar
24.	Prof. UbaidYaqoob	S.P. College, Srinagar



# CLUSTER UNIVERSITY SRINAGAR

Gogji-Bagh, Srinagar-190008

Office of the Dean school of Sciences.

Website: [www.cusrinagar.edu.in](http://www.cusrinagar.edu.in) E-mail: [info@cusrinagar.edu.in](mailto:info@cusrinagar.edu.in)

## Rescheduled Meeting Notice

Principal,  
S.P. College

**Subject: Board of Studies Meeting in the subject of Botany under NEP 2020.**

Sir/Madam,

The meeting of Board of Studies in the subject <sup>f</sup>Botany which was earlier scheduled on 14-07-2022 shall now be held on **18th of July 2022 at 11:00 A.M** in the Conference Hall of Cluster University Srinagar. All members of the Board of Studies may be asked to attend the meeting on the scheduled date and time.

18/185

No: CUS/DSc/Meet B.O.S / /2022

Dated: 13/07 /2022

**Copy for information and necessary action forwarded to:**

1. Dean Academic Affairs
2. Registrar for information
3. Principals of Concerned Constituent College.
4. FA/CAO;

## Minutes of Meeting

A meeting of Board of studies in Botany was held on **18-07-2022** in the conference hall of Cluster University Srinagar. The meeting was attended by

1. Dr. Haris Izhar Tantray (Dean, Sciences)
2. Dr. Syed Wilayat Rizvi
3. Prof. Sadaf Nazir
4. Dr. Nusrath Sayeed
5. Dr. Afroza Akhter
6. Dr. Nahida tun Nisa
7. Dr. Shabana Gulzar
8. Dr. Shaista Qadir
9. Dr. Suzana Bashir
10. Dr. Abdul Rashid Dar
11. Dr. Mohd Rafiq Wani
12. Dr. Pervaiz Ahmad Dar
13. Dr. Shabana Aslam
14. Dr. Fahima Gul
15. Dr. Nighan Jan Dijoo
16. Dr. Ubaid Yaqoob
17. Prof. Yaseen Maqbool

At the beginning of the meeting, Prof. Wilayat Rizvi welcomed all the board members. Prof. Haris, Dean Sciences highlighted the agenda of the meeting in view of NEP-2020. All the members put forth their suggestions and decided that

1. Title of each paper shall be specific and as per the statutes of Cluster University Srinagar.
2. Code for each paper shall be specific and appropriate code was approved.
3. Learning outcomes were thoroughly discussed and appropriate changes were made.
4. It was recommended to include standard reference books

At the end of the meeting all the suggested changes were incorporated and the syllabus was finalized. Meeting ended with the vote of thanks presented by Dr. Shabana Gulzar.

The changes suggested by the members were immediately incorporated in the soft copy of the syllabus

**Rapporteurs:** Dr. Parvaiz Ahmad Dar & Dr. Ubaid Yaqoob



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## Attendance Sheet

Subject: Meeting of Board of studies for the subject of Botany under NEP 2020. (Semester-1)

Dated: 18/07/2022

S. No	Name of Member	Place of Posting	Signature
1.	Nusrath Sayeed.	Govt College for women MA Road Srinagar	
2.	Dr. Afroz Akhlu	GOC, Bemina	
3.	Dr. Shaukat Dadr	GCW, M.A. Road, Sgr	
4.	Dr. Suzana Bashir	GCW, M.A. Road Sgr	
5.	Dev. Suabara Gulzar	GCW, M.A. Road, Sgr.	
6.	Dr. Shabana Aslam	S.P. College, Sgr	
7.	Dr. Perwaiz A. Dar	A.S College	
8.	Dr. Fahima Gul	S.P. college, Srinagar	
9.	Nighat Jan Dyer	S.P. College, Srinagar	
10.	Sadaq Nayir	S.P. College, Srinagar	
11.	Dr. Nahida Tun Nisa	A.S. college, Srinagar	
12.	Dr. Mohd. Rafiq Wani	AAAM Degree College Bemina, Srinagar	
13.	Dr. Ubaid Yaqoob	S.P. College	
14.	Yaseen Maqbool	S.P. College	
15.	Dr. Abr Rashid Dar	G.D.C. Allockhi Bagh	
16.	Dr. Wilayat Riza	S.P. College Sgr	

Dean School of Sciences

18/07/22

Syllabus for SEM-I of four-year undergraduate programme in constituent and affiliated colleges of Cluster University Srinagar in light of NEP-2020  
To be implemented from 2022

Subject- Botany  
Title: Biodiversity-an introduction  
Credits= 03(Theory) + 01 (Practical)

UG- 1<sup>st</sup> Semester  
Code- UGBOT22M101  
Marks 45T + 15P = 60

**Theory (03 Credits)**

*Course Objectives: The principal objective of this course is to impart basic knowledge about diversity of life on the earth; basic features of viruses, microbes, fungi and plants and their importance in nature.*

*Learning outcomes: By the end of the session a student must be able to distinguish different viruses, microbes, fungi and plants on the basis of simple features and must have understood their ecological, economic and other roles in our daily life.*

**UNIT-I Microbes and Algae**

(15 hours)

General characteristics of viruses, bacteria and fungi.

**Cyanobacteria-** General characteristics and significance of cyanobacteria, structure and life cycle of *Nostoc*

**Algae-** General characteristics of Algae, range of thallus organization. Morphology, reproduction and life cycle of *Volvox*, *Chara*, *Vaucheria*, *Batrachospermum*

**Symbiotic associations and their importance-** Myccorhizae and lichens

**UNIT-II Bryophytes and Pteridophytes**

(15 hours)

**Bryophytes-** General characteristics of bryophytes; morphology and reproduction of *Marchantia*, *Anthoceros* and *Funaria*.

Evolution of sporophyte. Apogamy and Apospory.

**Pteridophytes-** General characteristics of pteridophytes; morphology and reproduction (excluding developmental) of *Dryopteris* and *Selaginella*.

Heterospory and evolution of seed habit. Stellar system.

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**P.G. DEPARTMENT OF BOTANY  
CLUSTER UNIVERSITY SRINAGAR**

**UNIT-III Gymnosperms and Palaeobotany**

(15 hours)

**Gymnosperms-** General characteristics of gymnosperms; morphology and reproduction (excluding anatomy) of *Pinus*, *Cycas* and *Ephedra*.

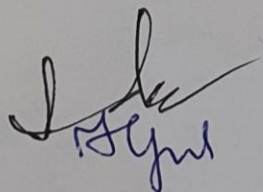
**Palaeobotany-** Introduction to fossils and their types, *Williamsonia* and *Caytonia*

**Practical (01 Credit)**

1. Models/Photographs of viruses, bacteria.
2. Preparation of temporary mount and study of the life cycle of *Nostoc*
3. Preparation of temporary mount and study of thallus structure of *Volvox*, *Chara*, *Vaucheria*, *Batrachospermum*.
4. Study of morphology and reproductive structures of *Marchantia*, *Anthoceros* and *Funaria*.
5. Study of morphology and reproductive structures of *Dryopteris* and *Selaginella*.
6. Study of morphology and reproductive bodies of *Pinus* and *Cycas*.
7. Study of different types of lichens.

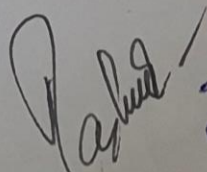
**Suggested Readings**

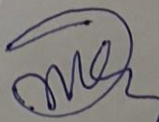
01. Tortora, G.J., Funke, B.R., Case, C.L. (2010). Microbiology: An Introduction, Pearson
02. Singh, V., Pande, P. C. and Jain, D. K. 2016/17. Biodiversity, Rastogi Publications, Meerut, India.
03. Saad, S.K., Thakur, A.K, Bassi, S.K. and Shah Imtiyaz A., 2016. Biodiversity for B.Sc. Semester-I as per CCBCS.
04. Pelczar, JR Chan, ECS & Krieg JR. Microbiology. TATA McGRAWHILL
05. Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R., (2005). Biology. Tata McGraw Hill, Delhi, India.
06. Alexopoulos, C.J. and Mims, C.W. 2002.: Introductory Mycology. 5th edition. John Wiley and Sons, New York.
07. Kumar, H.D. (1999). Introductory Phycology. Affiliated East-West. Press Pvt. Ltd. Delhi.
08. Parihar, N.S. (1991). An introduction to Embryophyta. Vol. I. Bryophyta. Central Book Depot, Allahabad.
09. Bhatnagar, S.P. and Moitra, A. (1996). Gymnosperms. New Age International (P) Ltd. Publishers, New Delhi, India.

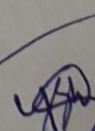


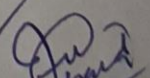












P.G. DEPARTMENT OF BOTANY  
CLUSTER UNIVERSITY SRINAGAR

Draft Syllabus for SEM-I of four-year undergraduate programme in light of  
NEP-2020 in constituent and affiliated colleges of Cluster University Srinagar  
To be implemented from 2022 onwards

Semester-I  
Title: Plants in human welfare  
Multidisciplinary

Subject: Botany (Multidisciplinary)  
Code- UGBOT22D102  
Number of credits: 03

Objectives: The principal objective of this course is to impart preliminary knowledge of plants,  
among the learners of all disciplines, that will prove useful in all walks of life

Learning outcomes: By the end of the session a student must be able to explain basic features of  
plants, human-plant relationship, significance of plants in relation to human welfare.

**UNIT-I Plants, wood and food**

(15 hours)

Morphology of plants- root, stem (and their modifications), leaves and flowers.

Fruits- Definition and types.

Wood- Different types of wood (porous and non-porous wood; heart wood and sapwood).

Plants as sources of food: Plants as sources of protein, carbohydrate and dietary fibres. Important  
cereals (rice) and pulses (*Phaseolus*).

**UNIT-II: Plants in Industry**

(15 hours)

Industrially and commercially important plants and their products- paper, rubber, cane, spices  
(*Curcuma*, *Cinnamomum*, *Zingiber*, *Crocus*), beverages (tea) and sugar.

General idea about application of plants in horticulture (apple, pear, peach); floriculture (cut flowers)  
and cosmetic industry (*Aloe vera*)

**Unit-III: Medicinal and Aromatic plants**

(15 hours)

General idea about medicinal and aromatic plants of Kashmir.

Medicinal plants- morphology, part(s) used, active principle(s) and medicinal uses of *Dioscorea*,  
*Podophyllum* and *Artemisia*

Aromatic plants- Morphology, part used and economic uses of Rosemary, Lavender, Mint

**Suggested Readings**

01. Kochhar S.L. (2016). Economic Botany – A Comprehensive Study (5<sup>th</sup> Ed). Cambridge English.
02. Peter Tompkins · Christopher Bird. (2020) The Secret Life of Plants: A Fascinating Account of the  
Physical, Emotional, and Spiritual Relations Between Plants and Man. Audiobook.
03. Edwin T. (2021). Economic Botany of the Himálayan District. Atlantic Publishers.
04. Sambamurty A.U. (2020). A Text Book of Modern Economic Botany. CBS.
05. Dover W. Jhon (2015) Green Infrastructure. ISBN-13 - 978-0415521246.

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