# RAMNIRANJAN JHUNJHUNWALA COLLEGE DEPARTMENT OF BOTANY

## MINUTES OF THE MEETING OF MEMBERS OF BOARD OF STUDIES IN BOTANY

TUESDAY 2/3/2021 AT 3.00PM BY ONLINE MODE

# **MEMEBERS**

Dr Himanshu Dawda Chairman Dr Nisha Muni Member Capt. Pravin Nayak Member Dr Anil Avhad Member Dr Veena Kelkar Member Dr Dan Bahadur Singh Member Dr Aruna Rai VC Nominee Dr S G Bhagwat Subject Expert

Dr Dharmendra Shah

Subject Expert- Other university

Dr Priya Chatterjee

Illustrious alumni and Industry Expert

Mr Ashish Lad Alumni from the industry facilitating placement

Dr Vaishali Gode Industry Expert- Invitee
Dr Mrunalini Date Subject Expert- Invitee
Dr Usha Mukundan Subject Expert- Invitee

## **AGENDA**

- To read and confirm the minutes of the meeting of BOS in Botany held on 1/8/2020
- Revision of SYBSc syllabus to be implemented from 2021-22
- To comply with UGC notification to have minimum 132 credits for undergraduate course
- To deliberate on Subject specific electives to be offered to SY students from 2022-23
- Value added courses
- Any other matter.

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# Item 2 on the Agenda

• Revision of SYBSc syllabus to be implemented from 2021-22

# Current SYBSc syllabus link

https://www.rjcollege.edu.in/syllabus/#1535221482323-27410ab6-8113

ADDITION	DELETION	RETAIN
STUDY OF MICROBODIES PEROXISOMES AND GLYOXYSOMES TO BE INCLUDED IN THE UNIT OF CYTOLOGY	REMOVE MITOSIS FROM PTACTICALS AS T IS COVERED IN FY	RETAIN ANATOMICAL FEATURES OF SECONDARY GROWTH IN MONOCOT STEM AS EXISTING AND REMOVE IT FROM TY PORTION OF ANAMOLOUS SECONDARY GROWTH SECTION.
GLOBAL DISTRIBUTION OF CONIFERS TO BE ADDED IN THE UNIT OF GYMNOSPERMS	ISOLATION AND LOCALIZATION OF MITOCHONDRIA USING DENSITY GRADIENT CENTRIFUGATION – CONVERT THIS PRACTICAL TO THE DEMONSTRATION PRACTICAL	
DIFFERENT TYPES OF SAMPLING METHODS IN VEGETATION STUDY TO BE INCLUDED IN THE UNIT OF ECOLOGY		
INTRODUCTION TO THE CONCEPT OF CYTOPLASMIC INHERITANCE TO BE INCLUDED IN THE UNIT OF GENETICS		RETAIN THE PRACTICAL ON CYTOPLASMIC INHERITANCE AS EXPLAINED IN 4 O'CLOCK PLANT
UNIT ON HORTICULTURE SHOULD HAVE METION OF FORMAL AND INFORMAL GARDENS, LANDSCAPE DESIGNING AND TECHNIQUE OF MAKING OF TERRARIUM		DEMONSTRATION AND THEN HANDS ON TRAINING FOR THE MAKING OF TERRARIUM TO BE RETAINED IN THE PRACTICALS
IN THE PRACTICALS RELATED TO UNIT ON ECONOMIC BOTANY- INCLUDE PRACTICAL EXTRACTION OF FIBRES AND CHECKING THEIR TENSILE STRENGTH		
IN THE UNIT ON ANGIOSPERMS, INCLUDE — STUDY OF NATIONAL PARKS IN THE CITY OF MUMBAI ( MAHIM NATURE PARK/SANJAY GANDHI NATIONAL PARK) INCLUSION OF FAMILIES IN THE SYLLABUS 1. ASTERACEAE MYRTACEAE COMBRETACEAE		

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# Item 3 on the Agenda

• To comply with UGC notification to have minimum 132 credits for undergraduate course

#### PHASE WISE PROGRESSION FROM 120 TO 132 CREDITS AS PER UGC LOCF

YEAR OF	SEM	EXISTING	REVISED	STRUCTURE OF	TOTAL
IMPLEMENTATION		CREDITS	CREDITS	ADDITIONAL CREDITS	
2021-2022	I	20	21	SKILL ENHACMENT COMP LIT-1	21
	II	20	21	SKILL ENHACMENT COMP LIT-2	21
2022-2023	III	20	22	DISCIPLINE SPECIFIC ELECTIVES	22
	IV	20	22	DISCIPLINE SPECIFIC ELECTIVES	22
2023-2024	V	20	23 ( 20+3*)	CORE SUBJECT ABILITY ENHANCMENT	23
	VI	20	23 ( 20+3*)	CORE SUBJECT ABILITY ENHANCMENT	23

\*3=2+1, where, CORE SUBJECT ABILITY ENHANCEMNT BY 0.5 IN EACH PAPER AND 1 PER SEMESTER SHALL BE SUBJECT SPECIFIC PROJECT

**TOTAL = 132** 

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## Item 4 on the Agenda

• To deliberate on Subject specific electives to be offered to SY students from 2022-23

#### Proposed **subject specific** electives shall be:

- a. Plant tissue culture
- b. Bio analytical techniques
- c. Instrumentations and techniques
- d. Gardening in limited space
- e. Mushroom cultivation technology
- f. Environmental microbiology and biotechnology
- g. Aquatic botany
- h. Horticultural practices
- i. Molecular techniques
- Each module will be of 30 contact hours including practical hours, inbuilt question module for continuous evaluation and final evaluation leading to the certificate of completion of the module.
- Module will offered online and over a specified period of time offering flexibility to student in terms of completion time but not extended beyond the given semester.
- Final evaluation could be online/ offline module.
- ➤ UGC LOCF for undergraduate program (BSc in Botany -2019) can be used as reference for developing curriculum of each course.
- Last date for module creation shall be December 31, 2021.
- Module may be submitted for expert reviewing.

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# Item 4 on the Agenda

Value added courses

30 contact hour value added online course on Safety in Laboratory' corresponding to 2 additional credits for the students of SY –Botany/Zoology, Chemistry- Botany/ Chemistry-Zoology in. It would give an insight to students SOPs, safe handling of chemicals, glass wares, instruments and specimens. A ready to read and use manual will be generated through the course.

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The outcomes of the discussion and deliberations during the meeting of BoS in Botany held on 2<sup>nd</sup> March, 2021.

- 1. The minutes of the BoS meeting held on 1/8/2020 were read and confirmed.
- 2. The proposal for the changes in the currently taught syllabus of SYBSc Botany was placed in front of the house. The changes proposed were organized in three sections as Addition of new topics, Deletion of existing topic and Retaining of a given topic with justification (for example, if *Dracaena* from the study of anomalous secondary growth from TY portion is brought to the SY portion to emphasis that there are members in monocots which do have secondary growth, then alternative examples like *Yucca* can be added in TY portion while reviewing unusual cambial origin and activity is being taught). The proposed changes being in accordance with the desired changes for slow progression of the syllabus topics from very preliminary and introductory to detailed and descriptive, were all accepted. Addition of some new families in the study of angiosperms was proposed and accepted. Experts expressed the opinion that seasonal flower material and plant twigs availability must e ensured. Dr Aruna Rai. VC Nominee suggested that while teaching any plant derived product in the section of Economic Botany, we must ensure that the students gets a chance to see the actual plant from which the product is derived. As a botanist, they should be able to classify and describe the plant source.
- 3. The experts appreciated the subject specific electives indentified by the department. Skill enhancing modules are very essential as industries need trained personnel's who not only has strong subject domain knowledge but can perform independently and contribute to the assignment with desired applicability and long term reproducibility. These trails can only be acquired when a student gets enough hands of training on instrument use and handling of material. The chairman acknowledged the funding of DBT Star College that is received by the department as DBT Star College department, helping in providing hands on training to the students.
- 4. The value added curse on 'Safety in Laboratory' designed for the additional credit was appreciated. The experts mentioned that more such modules should be created and using online platform, delivery of the same should be ensured for maximum students benefiting out of it.
- 5. The experts appreciated the efforts taken by the department in making students aware of their responsibilities towards the environment conservation by means of organizing webinars on climate change, student participating in beach cleaning drive, credit generation for by collecting MLPs in Safai Bank. They congratulated the department for the successful conduct of DV

Amonkar Intercollegiate Elocution Competition. Dr S G Bhagwat, Ex-Scientist BARC described it as a novel and wonderful activity wherein annual festival of the department Botanica was conducted online by posting videos made by students on different inquiry based Questions from Botany and streamed live for the benefit of VIII, IX and X th standard students from three different schools. Participation of UG and PG students of the department in Anusandhan was appreciated by all the experts and Dr Bhagwat expressed that the department has the potential to participate in huge number in the Annual Research Convention of the University of Mumbai called *Aavishar*.

- 6. The chairman informed the house that Dr Bhagwat had earlier proposed that department should think about having activity where in students can explain scientific concepts through Cartooning and the same in the form of interdepartmental activity was completing by the department on 20/2/2021.
- 7. The experts suggested that department should explore more avenues of bringing students together for learning with fun by means of arranging reporting of a scientific finding in their own words, concept mapping, subject crosswords, designing of green parks, making decorative artifacts using botanical material etc.
- 8. The experts further suggested that a virtual tour of any botanical garden as pre-recorded video or live foot walk with camera and live commentary through the botanical garden should be arranged at the earliest during this pandemic period where in taking students for an excursion is not possible. The members agreed on the suggestion and the chairman assured the experts that it shall be arranged.