

Rayat Shikshan Sanstha's  
**Karmaveer Bhaurao Patil College Vashi**  
(Autonomous College)  
**Department of Bioanalytical Sciences**

Date: 07<sup>th</sup> July 2018

To,

1) **Dr. Sunita Shailajan**  
Professor,  
Department of Botany,  
Ramnarain Ruia College,  
Matunga, Mumbai

2) **Dr. Pratap Rasam**  
Senior Manager,  
Shimadzu Analytical (I) Pvt.  
Ltd.  
Marol, Mumbai

3) **Dr. D. B. Thakare**  
Ph.D (Microbiology)  
Retired Academician  
KBP College,  
Vashi Navi Mumbai

4) **Dr. Anand Kulkarni**  
BAMS  
Consultant,  
Proprietor at Antara Herbals,  
Navi Mumbai

5) **Ms. Priyanka Maske**  
PhD Student,  
NIRRH, Parel,  
Mumbai

**And all faculty members of the department**

## NOTICE

All Members of Board of studies are hereby informed that the First BoS meeting in the subject of Bioanalytical Sciences is scheduled on 16<sup>th</sup> July 2018 from 11:00 am to 1:00 pm (Venue: Department of Bioanalytical Sciences M213) to consider the agenda items given below. All our members are requested to be present at the meeting.

## AGENDA

1. Welcome (10 min)
2. Presentation of Syllabus designed for M.Sc. Program in Bioanalytical Sciences (Course: M.Sc. Part I) before the Board of Studies (Bioanalytical Sciences) for approval.(60 min)
3. Proposing the new method of evaluation for undergraduate and postgraduate classes (20 min)
4. Presentation of Syllabus designed for the following Skill Based Courses in Bioanalytical Sciences; before the Board of Studies (Bioanalytical Sciences) for approval (20 min)
  - Analysis of Biomolecules
  - Bioinstrumentation Techniques
5. M. Sc. Part II (Semester III& IV) Syllabus (10 min)

  
Chairperson

BoS

Department of Bioanalytical Sciences

**Rayat Shikshan Sanstha's**  
**KARMAVEER BHAURAO PATIL COLLEGE, VASHI**  
**Minutes of meeting**  
**Department of Bioanalytical Sciences**

The meeting with BOS members of Bioanalytical Sciences is organized on 16<sup>th</sup> July 2018 at Karmaveer Bhaurao Patil College, Vashi under the chairmanship of HOD Dr. Azmina A. K. Masurkar.

Meeting Venue: Bioanalytical Sciences Department

Agenda:

1. Presentation of Syllabus designed for M.Sc. Program in Bioanalytical Sciences (Course: M.Sc. Part I) before the Board of Studies (Bioanalytical Sciences) for approval.
2. Proposing the new method of evaluation for undergraduate and postgraduate classes
3. Presentation of Syllabus designed for the following Skill Based Courses in Bioanalytical Sciences; before the Board of Studies (Bioanalytical Sciences) for approval.
  - Analysis of Biomolecules
  - Bioinstrumentation Techniques
4. M. Sc. Part II (Semester III& IV) Syllabus

The following members were present for the meeting:

Sr. No.	Name	Designation	Position
1	Dr. Azmina A. K. Masurkar	HOD	Chairman
2	Dr. Sunita Shailejan	Associate Professor, Department of Botany, Ramnarain Ruia College	VC Nominee
3	Dr. D B Thakre	Retired Academician	Subject Expert (outside university)
4	Dr. Anand Kulkarni	Consultant, Proprietor at Antara Herbals	Subject Expert (outside university)
5	Dr. Pratap Rasam	Senior Manager, Shimadzu Analytical (I) Pvt. Ltd	Representative from industry
6	Ms. Priyanak Maske	PhD Student at NIRRH	Meritorious alumni
7	Dr. Rajashri Ghorpade	Coordinator	Associate Professor
8	Ms Geetanjali Gone	Assistant Professor	Member
9	Ms. Kalyani Patil	Assistant Professor	Member

Dr. Azmina A. K. Masurkar [Chairman, BOS Bioanalytical Sciences] extended welcome to all the members of BOS.

### **Reading of Agenda:**

- Motion from Dr. Azmina A. K. Masurkar: To approve the agenda for 16<sup>th</sup> July 2018 at 11:00 am.

Vote: All in favor.

Resolved: **Motion carried.**

Agenda for the meeting on 16<sup>th</sup> July 2018 approved without modification.

### **Business:**

The meeting began with a warm welcome of the members of Board of Studies. Dr. Azmina A. K. Masurkar, Head of Bioanalytical Sciences Department introduced the members of the Core Team of BOS to the faculty members of the department of Bioanalytical Sciences.

Further, Dr. Azmina A. K. Masurkar invited the members of BOS to analyze the proposed syllabus critically and offer their open comments on it. She assured all the members that suggestions made by each member are of utmost value and will be surely considered for further improvements in the syllabi.

**Motion 1: Presentation of Syllabus designed for M. Sc Program in Bioanalytical Sciences before the Board of Studies (Bioanalytical Sciences) for approval.**

Discussion: For M.Sc. Part I, one paper was presented at a time and discussions were followed immediately after.

The syllabus for M. Sc. Part I was presented by Dr. Azmina A. K. Masurkar.

The Following suggestions were given by BOS members:

### **Semester I**

#### **Paper I:**

- 1) Unit 101.1: No suggestions were given.
- 2) Unit 101.2: Addition of one more subtopic, "Introduction to ASU and AYUSH" was recommended by Dr. Sunita Shialajan, Dr. Anand Kulkarni and Ms. Priyanka Maske.
- 3) Unit 101.3: Dr. Sunita Shailajan and Dr. Anand Kulkarni suggested that in disease management include Obesity/PCOD as one of the diseases and also use one plant example for disease management. Eg: Phyllanthus Niruri is used for kidney stones, gallstones, liver health, and diabetes etc.

- 4) Unit 101.4 : Shifting of the first subtopic i.e. plants and their medicinal uses(example of one plant to be given) was recommended to unit 101.3 by Dr.Sunita Shailajan
- 5) Practicals for 101: Following suggestions were given by Dr. Sunita Shailajan
  - All plant names should be in *Italics*.
  - “Determination of sugars using paper chromatography” instead of “Determination of sugars by descending paper chromatography.”

### **Paper II:**

- 1) Unit 102.1: No suggestions were given.
- 2) Unit 102.2: Dr. Sunita Shailajan advised that IP, BP, USP Pharmacopoeias should be available for students reference in departmental library and Dr. Anand Kulkarni also assured that he will provide us with some analysis books for Ayurvedic preparations.
- 3) Unit 102.3, 102.4 and practicals in 102: Dr. Sunita Shailajan and Dr. Pratap Rasam suggested that assignments should be given to students in order to understand GLP, QA & QC in better way and also calibration instrument and Preparation of SOP should be also included as assignments

### **Paper III**

- 1) Unit 103.1: Dr. Sunita Shailajan suggested renaming of this unit from “Theory of chromatographic separation and TLC” to “Theory of chromatographic separation, TLC and applications of TLC” and inclusion of “introduction to HPTLC” was also recommended by her.
- 2) Unit 103.2: “Instrumental Methods of Chemical Analysis” by Anand and Chatwal was recommended as one of the reference books for instrumentation by Dr. Pratap Rasam.
- 3) Unit 103.3 and 103.4: No suggestions were given.
- 4) Practicals for 103: Dr. Sunita Shailajan recommended renaming the following practical from “HPLC separation of herbal raw material from its formulation” to “HPLC separation of herbal phytoconstituents of a raw material from its formulation” (to include plant, herbal raw material and formulation of one of the medicinal plants mentioned for HPLC analysis)

### **Paper IV**

No changes were mentioned by BOS members.

## Semester II

### Paper I

- 1) Unit 201.1: Following suggestions were given by Dr. Anand Kulkarni
  - Global pharma R&D (as common guidelines) were asked to be included
  - Explain R&D strategies of Indian pharma w.r.t. WHO guidelines
- 2) Unit 201.2: Following changes were recommended by Dr. Sunita Shailajan
  - Renaming of the subtopic from “direct injection of plasma” to “direct injection of plasma in cartridges”
  - Renaming of the subtopic from “other new developments” to “other new developments in solid phase extraction techniques”
- 3) Unit 201.3: Dr. Sunita Shailajan advised that, for integrated pathways in regards with secondary drug metabolite production include any two pathways (Shikmic acid pathway and Mevalonate pathway)
- 4) Unit 201.4: Inclusion of “Introduction to spray dry extraction and its application” as one of the subtopics.(Students will be taken for demo f the mentioned technique) was advised by Dr. Anand Kulkarni
- 5) Practicals 201: Following changes were recommended by Dr. Sunita Shailajan
  - Inclusion of microwave extraction and sonication as modern method of extraction for respective practical.
  - Renaming of the practical from “Phytochemical variation within the species using HPLC/HPTLC” to “Evaluation of geographical/regional variation in terms of phytochemical using HPTLC/HPLC/TLC using a suitable plant example”.

### Paper II:

- 1) Unit 202.1: Following changes are recommended by Dr. Sunita Shailajan
  - Inclusion of Indian Patent act in IPR and patenting-1 was recommended as one of the subtopics
  - Addition of patenting for different plant extract, process patent etc.
- 2) Unit 202.1: Dr. Anand Kulkarni suggested Ayurvedic Pharmacopoeia, IP or BP was recommended as reference book for “Stability issues in ASU”
- 3) Unit 202.3: By excluding IPR and Patenting-2 unit addition of another unit was suggested by Dr. Sunita Shailajan
- 4) Unit 202.4: Dr. Sunita Shailajan recommended on arranging a visit to Indian institute of Packaging, Andhrei or School of Packaging for better understanding of packaging techniques.
- 5) Practicals in 202: No Suggestions were given.

### **Paper III**

- 1) Unit 203.1: Dr. Sunita Shailajan insisted on renaming the subtopic no.4 name from "HPTLC in fingerprinting and QC" to "Fingerprint development and quantification marker compound for formulation using HPTLC" and removal of subtopic No.5 of Troubleshooting in HPTLC.
- 2) Unit 203.2, 203.3, 203.4 and practicals in 203: no changes were mentioned.

### **Paper IV:**

No changes were mentioned by BOS members.

#### **General Suggestions:**

- 1) Dr. Pratap Rasam emphasized on conducting fire extinguisher demo for students and all staff members.
- 2) Dr. Sunita Shailajan insisted that each paper should have course objectives and learning objectives.

Vote: All in favor.

Resolved: **Motion carried.**

#### **Motion 2: Presentation of Syllabus designed for the following Skill Based Courses in Bioanalytical Sciences for UG & PG; before the Board of Studies (Bioanalytical sciences) for approval**

The syllabus for skill based courses were presented by Ms. Geetanjali Gone

Discussion: the BOS members opinioned that the syllabus has to be more elaborate, evaluation pattern has to be mentioned and also marking scheme has to be given for the evolution method.

Vote: All in favor.

Resolved: **Motion carried.**

#### **Motion 3: Proposing the method of evaluation for M. Sc. Part I classes.**

The method of evaluation was presented by Ms. Geetanjali Gone.

Discussion: The 60-40 pattern for evaluation at the master's course was discussed elaborately.

Dr. Sunita Shailajan suggested changes in internal evaluation pattern from 10-30 to 20-20. She

also suggested unit test or class test should include instead of oral test and also the documentation of each internal evaluation has to be produced.

Dr. Sunita Shailajan also recommended that students have to be provided with detailed marking scheme.

Vote: All in favor.

Resolved: **Motion carried.**

Vote of thanks was proposed **Dr. Azmina A. K. Masukar.**

**Meeting adjourned at 2:30 pm.**

Motion 4: **M. Sc. Part II (Semester III& IV) Syllabus**

- No changes were made for M. Sc Part II syllabus for semester III & IV

Vote: All in favor.

Resolved: **Motion carried.**



Chairman

BoS Bioanalytical Sciences