
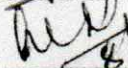
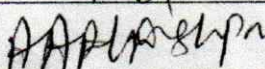
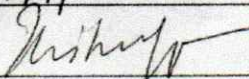

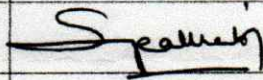
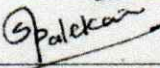
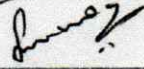
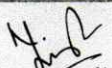
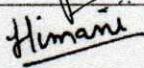

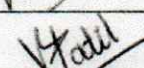
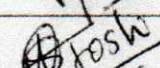
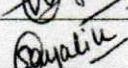
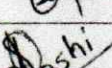
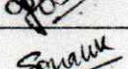



Ramnarain Ruia College
Date: 08 August 2017
Venue: Conference Room

Following members attended the BOS meeting for Bioanalytical Sciences.

Sr. No.	NAME	SIGNATURE
1	Dr. Ajit Datar	
2	Dr. Asmita Nimkar	 8/8/17
3	Dr. Anjali Apte- Deshpande	
4	Dr. Krishnapriya Mohanraj	
5	Dr. Mary Francis	
6	Dr. Sujata Suvarnapatki	
7	Mr. Sachin Palekar	
8	Ms. Sandhya Menon	
9	Ms. Nandini Girish	
10	Ms. Himani Vaishnav	
11	Mr. Vishwajit Kale	
12	Ms. Vrushali Patil	
13	Ms. Ashwini Joshi	
14	Ms. Sayali Kadge	
15	Ms. Dhanashree Joshi	
16	Ms. Sonali Karandikar	
17	Ms. Aanchal Pareri	

S.P. Mandali's
Ramnarain Ruia Autonomous College
Dept of Bioanalytical Sciences

Agenda of BOS meeting

Date: 08 August 2017

Venue: Conference Room

- **Agenda 1:**
To revise (if needed) and pass the syllabus (Theory and practicals) of Regular M.Sc. course.
- **Agenda 2:**
To revise (if needed) and pass the syllabus (Theory and practicals) of Integrated M.Sc. course.
- **Agenda 3**
To review and revise (if needed) M.Sc. examination pattern.
- **Agenda 4**
Any other topic.

S.P. Mandali's
Ramnarain Ruia Autonomous College
Dept. of Bioanalytical Sciences
Minutes of BOS meeting conducted on 08 Aug 2017

Following changes were suggested for syllabus of Regular M.Sc. I
Reg M. Sc. I semester I

Paper I

Theory:

- Unit III: Pharmacognosy
- Deleted topic -Phytogeography of India
- Topic "Crude drug" was reframed as "Evaluation of Crude drugs".

Practicals:

- Reframed the Practical on Microscopic Analysis of Crude Drugs.
- Herbaria Preparation & field notebook writing shifted in paper I in alignment with theory.
- Study of Different dosage forms and classification of drugs (Assignment).
- Preparation of standard solutions, Extracts by classical & modern methods.
- Proximate evaluation of Crude drugs.

Paper II

Theory: No Change

Practicals

Introduced Following Practical

- Abstract writing for a research paper
- Study of IQ, OQ, PQ
- Preparation of SOP for any one analytical Instrument
- Study of Pharmaceutical Preparation: Chemical Assay as per IP
- Deleted the practical of Tablet making using IR press

Paper III

Theory: No Change

Practicals:

- Shifted TLC in alignment with theory syllabus
- Reframed the Practical: Removed old examples in order to introduce latest examples
- Introduced the following:
 1. Analysis of a modern drug by UV-Visible Spectroscopy.
 2. Turbidometry & Nephelometry analysis of Pharmaceutical Products.

Paper IV

Theory:

- Omitted unit of Laboratory Safety as it was a repetition
- Introduced two units on latest Bioinformatics in Alignment with Pharma applications
- **Title: Bioinformatics (15)**
 1. Bioinformatics & Applications
 2. INSDC, Sequence file formats & sequence databases
 3. Concept of drug discovery & designing process
 4. Docking Concept
 5. Cheminformatics
 6. Bioinformatics in disease treatment
- **Title: Sequence Alignment Concept (15)**
 1. Biological Sequences & sequence alignment concept
 2. Scoring matrices- PAM & BLOSUM
 3. Pairwise sequence alignment methods-Dot Plot, Dynamic Programming, Word or K-tuple method.
 4. Multiple Sequence alignment methods

Practicals

- **Introduced newer Concepts in Bioinformatics:**
INSDC, UniProt, GenBank, BLAST & its variants, ClustalO, Rasmol, MarvinSketch- Marvin View & Docking

Reg M. Sc. I semester II

Paper I

Theory: No change

Practicals:

Practical number reduced due to rearrangement of TLC & Flame Photometry

Paper II

Theory: No change

Practicals:

Reframed the titles for stability experiments as follows:

- Study of Shelf life of herbal drugs
- Study of compatibility of container with the drug

Paper III

Theory

- Added Advances in HPTLC

Practicals

Following practicals added:

1. Simultaneous Analysis of Phytoconstituents by HPTLC & GC
2. Sample Preparation for AAS & analysis of various metals from pharmaceutical products/ Crude drugs using AAS

Paper IV

Theory

- Following concepts were added:
 1. The immune system concept
 2. Integrated scenario of immunoinformatics & research areas
 3. Immunomics & databases: IMGT, CED, IEDB, Bcipep, Syfpeithi
 4. Applications of immunoinformatics

Practicals

- Following practicals added:
 1. Immunomic databases: CED, BCIPEP, IMGT, IEDB, Epitome.
 2. Calculation of different Pharmacokinetic parameters like K_a , K_e , $t_{1/2}$, t_{max} , T_{max} and AUC from the given blood data.
 3. Study of Enzyme: Purification & optimization (kinetics)
 4. Safety Evaluation of Laboratory

Reg M. Sc. I semester III

Paper I

Theory:

- Units of GCP I& II were merged.

Practicals:

- Deleted few practicals such as Strain improvement, Sterility of laminar air flow

Paper II

Theory: No change.

Practicals: No change

Paper III

Theory: No change.

Practicals: No change

Paper IV

Theory: No change.

Practicals: No change

Reg M. Sc. I semester IV

Theory: No change.

Practicals: No change

Paper II

Theory: No change.

Practicals: No change

Paper III

Theory: No change.

Practicals: No change

Paper IV

Theory:

- Unit I divided in two units PV & TDM

Practicals

- Following practicals added
 1. Analysis of Ayurvedic oil: Refractive Index, Viscosity & IR Spectroscopy.
 2. Physicochemical & microbial Analysis of water
 3. In vitro antidiabetic assays for herbal drug

Following changes were suggested for syllabus of Int. M.Sc. II

PAPER II

- 21 CFR 11 was introduced

PAPER III

- TITLE OF THE PAPER Analytical techniques and their application in Bioanalysis.

Sem X paper III

- Name of this Paper Should be Advances in pharmaceutical sciences


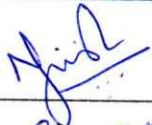
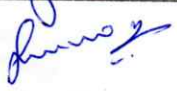
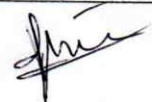

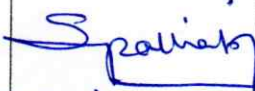
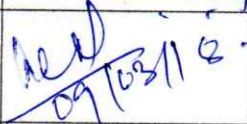

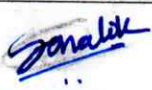
Suggestions for examination pattern:

- Internal examinations should be introduced for P.G. classes

1





Ramnarain Ruia Autonomous College
Date: 09th March 2018
Venue: Department of Bioanalytical Sciences

Following members attended the proposed Study Board meeting for Bioanalytical Sciences.

Sr. No.	NAME	SIGNATURE
1.	Mr. Sachin Palekar -Head & Convener	
2.	Ms. Nandini Girish -Senior Teacher Member	
3.	Ms. Sandhya Menon -Senior Teacher Member	
4.	Dr. Ajit Datar -University Representative elected by BOS of Bioanalytical Sciences at University of Mumbai.	
5.	Dr. Krishnapriya Mohanraj -Expert, Pharmaceutical Sciences	
6.	Dr. Sujata Suvarnapatki -Expert, Statistics	
7.	Dr. Asmita Nimkar -Industry Representative	
8.	Dr. Mary Francis -Expert, Clinical Research	—
9.	Ms. Aanchal Udaynath -Student Representative	
10.	Ms. Sonali Karandikar -Student Representative	

Ramnarain Ruia Autonomous College
Date: 09th March 2018
Venue: Department of Bioanalytical Sciences

Following faculties attended the proposed Study Board meeting for Bioanalytical Sciences.

Sr. No.	NAME	SIGNATURE
1.	Ms. Himani Vaishnav -Faculty	
2.	Ms. Vrushali B. Patil -Faculty	
3.	Ms. Sayali Kadge -Faculty	
4.	Ms. Dhanashree Joshi -Faculty	



Mr. Sachin Palekar,
Head & Convener,
Department of Bioanalytical Sciences,
Ramnarain Ruia Autonomous College,
Mumbai.

Study Board Meeting

Date: **09/03/18**

Venue: Department of Bioanalytical Sciences N213
Ramnarain Ruia Autonomous College

Agenda for the meeting:

1. Student and Faculty Feedback about the syllabus implemented for the academic year 2017-18.
2. Credit distribution and examination pattern for UG and PG (both the courses) classes to be implemented in the academic year **2018-19**.
3. Panel of Examiners and Paper Setters for UG and PG (both the courses) classes for the academic year **2018-19**.
4. Syllabus Finalization for **MSc Semester VII-X**(Integrated MSc Course) and **MSc Semester I-IV**(Regular Course) to be implemented in the academic year **2018-19**
5. Other points if any.

Ramnarain Ruia Autonomous College

Dept. of Bioanalytical Sciences

Minutes of Study Board Meeting

Date: 09th March 2018

Time: 2:30pm – 5:30pm

Agenda I

- ❖ Credits discussion
 - 4 for Theory
 - 2 for Practical
- ❖ Assessment
 - Partial internal / Partial external or Completely External

Agenda II

- ❖ 60:40 ratio- External: Internal
- ❖ Time for practical exams
- ❖ TY- 3hrs for Computational sciences
 - ◆ 5hrs for Chemical sciences & Biological sciences
- ❖ PG- 2.5 hrs Theory
 - ◆ 6 hrs Practical

Agenda III

- ❖ Paper setting pattern
 - ◆ Never ask short notes
 - ◆ No questions should be asked for more than 4 marks (especially for PG), maximum 5 marks
 - ◆ Be specific while asking questions
 - Eg: Instrumentation of
 - Applications of
 - ◆ Out of 4, attempt any three (For PG)
- ❖ Keep some marks for objectives with justification (to avoid copying)
- ❖ Keep specific questions
- ❖ Questions should exploit the thinking ability of a student
- ❖ Examiner's Panel
 - 1 Internal + 1 External
 - Put full forms in syllabus for all abbreviations like GC, HPLC, etc

Agenda IV : Changes in syllabi

Class	Subject	Changes made
F.Y.B.Sc	Biological Sciences	Introduced a new topic Biological Membranes & Transport in (sem II), Transport from (sem IV)
	Chemical Sciences	Introduced a new topic Basic instrumentation in Bioanalytical Laboratory , Photochemistry (sem II) , Hybridisation (sem I), Colloidal Dispersion (sem II) omitted.
		Three new reactions are introduced in reaction mechanism unit
		Introduced a new unit Automation in analysis.
		Titrimetric analysis is shifted to (sem II)
		Atomic structure and molecular bonding is renamed as introduction to molecular bonding (sem I)
	Computational Sciences	Alternating current theory and transient response Data modules and languages
S.Y.B.Sc	Biological Sciences	Molecular Biology (sem IV) is converted to Central Dogma of molecular biology (sem III)
		New unit Genetic disorders is introduced (sem III)
		Advanced Microbiology , Virology (sem III) and Antimicrobial Agents (semIV) are merged and renamed as Industrial Microbiology and Medical Microbiology (sem III)
		New unit introduced – Tissue Culture-Plants & Animals, Biochemical methods of Analysis and Pharmacognosy & Ethnobotany (sem IV)
	Chemical Sciences	Introduce Pharmaceutical Chemistry introduced in place of Phytochemistry in (semIV)
Computational Sciences	Modified the unit Basics of sequencing	
T.Y.B.Sc	Biological Sciences	Ethnobotany is added to Pharmacognosy (sem V)
		Indroduced Tissue Culture- Plants & Animals (sem V)
		Applied Molecular Biology is

		renamed as Applications of Recombinant DNA Technology
Int.M.ScI	Paper I	Modified existing unit on Pharmaceutical manufacturing
	Paper III	Introduction of new unit Bio-matrices
M.ScI	Paper I	Modified the existing paper and introduced Bioanalysis instead of extractions
	Paper II	Renaming and rearrangement of spectroscopy & chromatography papers
	Paper III	Rearranged units in the papers
	Paper IV	Introduced new unit Chiral Chromatography and CD-ORD
	Paper IV	Biostatistics & statistics are separate units