

Resolution Number: AC/II(23-24).2.RUS1

**S. P. Mandali's**  
**Ramnarain Ruia Autonomous College**

(Affiliated to University of Mumbai)



**Syllabus For:**

**Program: Integrated M.Sc.**

**(S.Y. B.Sc. Syllabus)**

**Program Code: RUSBAS**

**(As per the guidelines of National Education Policy**

**2020-Academic year 2024-25)**

**(Choice based Credit System)**

## GRADUATE ATTRIBUTES

GA	GA Description
	<b>A student completing Bachelor's Degree in Science program will be able to:</b>
<b>GA 1</b>	Recall and explain acquired scientific knowledge in a comprehensive manner and apply the skills acquired in their chosen discipline. Interpret scientific ideas and relate its interconnectedness to various fields in science.
<b>GA 2</b>	Evaluate scientific ideas critically, analyse problems, explore options for practical demonstrations, illustrate work plans and execute them, organise data and draw inferences.
<b>GA 3</b>	Explore and evaluate digital information and use it for knowledge upgradation. Apply relevant information so gathered for analysis and communication using appropriate digital tools.
<b>GA 4</b>	Ask relevant questions, understand scientific relevance, hypothesize a scientific problem, construct and execute a project plan and analyse results.
<b>GA 5</b>	Take complex challenges, work responsibly and independently, as well as in cohesion with a team for completion of a task. Communicate effectively, convincingly and in an articulate manner.
<b>GA 6</b>	Apply scientific information with sensitivity to values of different cultural groups. Disseminate scientific knowledge effectively for upliftment of the society.
<b>GA 7</b>	Follow ethical practices at work place and be unbiased and critical in interpretation of scientific data. Understand the environmental issues and explore sustainable solutions for it.
<b>GA 8</b>	Keep abreast with current scientific developments in the specific discipline and adapt to technological advancements for better application of scientific knowledge as a lifelong learner.

### Program Outcomes (PO)

PO	Description
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	A student completing Bachelor's Degree in Science program in the subject of Bioanalytical Sciences will be able to:
<b>PO 1</b>	Gain high quality science education in a vibrant academic ambience with the faculty of distinguished teachers and scientists.
<b>PO 2</b>	Take up the challenge of doing quality research and teaching and also contribute to industrial production and R & D in the fields of Bioanalysis, Bioinformatics and Nutraceutical Sciences.
<b>PO 3</b>	Amalgamate classical analytical chemical techniques with modern genomic and proteomic technologies of manufacturing and analysis to better characterize the products useful as medicines as well as nutraceuticals.

## Semester III

**Course Code: RUSAECBASO201**

### Subject VI

**Course Title: Communication Skills**

**Type of Course: Life Skills**

**Academic Year 2024-25**

**S. Y. B.Sc.**

#### COURSE OUTCOMES:

COURSE OUTCOME	DESCRIPTION
<b>CO 1</b>	Apply effective communication skills in day-to-day life.

#### DETAILED SYLLABUS

Paper Code	Semester III	Credits/Hours
<b>RUSAECBASO201</b>	<b>Communication Skills</b>	<b>2/30</b>
<b>1</b>	<b>Basics of Effective Communication</b>	<b>15</b>
	1. Basics of effective communication <ul style="list-style-type: none"> <li>a) Concepts</li> <li>b) Process</li> <li>c) Myths about communication</li> </ul> 2. Communication: It's interpretation <ul style="list-style-type: none"> <li>a) Verbal Communication (Listening skills)</li> <li>b) Non-verbal Communication</li> <li>c) Barriers to Communication</li> </ul> 3. Writing basics <ul style="list-style-type: none"> <li>a) Spelling rules</li> <li>b) Punctuation</li> <li>c) Abbreviations</li> <li>d) Proof Reading</li> </ul>	
<b>2</b>	<b>Writing skills: Formal writing</b>	<b>15</b>

1. Letters

- Application Letter
- Bank Letters
- Business Letters
- Letters to the Editor

2. E-Communication

3. Resume writing

4. Interview skills

5. Assignment Writing

6. Reports

- Experimental Report
- Field Work Report
- Industrial Visit Report

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## Semester IV

Course Code:

## Subject VII

Course Title: Field Project/Regional Case Study

Type of Course: Internship/Research Project Case Study

Academic Year 2024-25

S. Y. B.Sc.

### COURSE OUTCOMES:

COURSE OUTCOME	DESCRIPTION
CO 1	Synthesize a scientific discovery-based approach for solving problems.

Paper Code	Semester IV	Lectures/Credits
	Field Project/Regional Case Studies	30/2
	Students will identify a relevant science-based topic having social/economical/cultural implications and will devise a survey to explore various aspects of the same.  <b>Or</b>  Students will identify a problem in their locality and devise a scientific strategy to find its solution.	