

Re-accredited by NAAC with 'A' Grade with CGPA 3.62/4 Recognised by UGC as "College with Potential for Excellence" Conferred "College with "STAR STATUS" by DBT, Government of India. Centre for Research Capacity Building under UGC-STRIDE

Date: 12-08-2021

## NOTIFICATION

Sub: Syllabus of M.Sc. Biochemistry under Choice Based Credit System.

Ref: 1. Decision of the Academic Council meeting held on 19-06-2021vide Agenda No: 9 (2021-22)

2. Office Notification dated 12-08-2021

Pursuant to the above, the Syllabus of M.Sc. Biochemistry under Choice Based Credit System which was approved by the Academic Council at its meeting held on 19-06-2021 in hereby notified for implementation with effect from the academic year 2021-22.

> MANGALURI 575 003

PRINCIPAL



To:

- 1 The Chairman/Dean/HOD.
- 2. The Registrar Office
- 3. Library
- 4. PG Office

| M.Sc. Biochemistry<br>I Semester (2+1 Hard core and 2+1 soft core paper) |  |            |            |       |            |     |    |  |  |  |  |
|--|--|------------|------------|-------|------------|-----|----|--|--|--|--|
|  |  |            |            |       |            |     |    |  |  |  |  |
| PH 511.1   | Biomolecules                                       | 5          | 3          | 30    | 70         | 100 | 5  |  |  |  |  |
| PH 512.1   | Biochemical Techniques                             | 4          | 3          | 30    | 70         | 100 | 4  |  |  |  |  |
| PH 513.1P  | Bioquantitation                                    | 8          | 4          | 30    | 70         | 100 | 4  |  |  |  |  |
| PS 514.1   | Organic and Physical<br>Biochemistry               | 3          | 3          | 30    | 70         | 100 | 3  |  |  |  |  |
| PS 515.1<br>PS 516.1   | Physiology and Nutrition<br>General microbiology   | 3          | 3          | 30    | 70         | 100 | 3  |  |  |  |  |
| PS 517.1P<br>PS 518.1P   | Analytical Techniques<br>Experimental microbiology | 8          | 4          | 30    | 70         | 100 | 3  |  |  |  |  |
|  | Total  |            |            |       |            | 600 | 22 |  |  |  |  |
| II Semester  | (2+1 Hard core and 2+1 Soft                        | core paper | s and 1 op | en el | ective pap | er) |    |  |  |  |  |
| PH 511.2   | Enzymology   | 5          | 3          | 30    | 70         | 100 | 5  |  |  |  |  |
| PH 512.2   | Metabolism   | 4          | 3          | 30    | 70         | 100 | 4  |  |  |  |  |
| PH 513.2P  | Practical Enzymology                               | 8          | 4          | 30    | 70         | 100 | 4  |  |  |  |  |
| <mark>PS 514.2</mark>  | Research Methodology and Ethics                    | 3          | 3          | 30    | 70         | 100 | 3  |  |  |  |  |
| PS 515.2   | Biotechnology                                      | - 3        | 3          | 30    | 70         | 100 | 3  |  |  |  |  |
| <mark>PS 516.2</mark>  | <b>Neurobiochemistry</b>                           |            |            |       |            |     |    |  |  |  |  |
| PS 517.2P  | Practical Biotechnology                            |            |            |       |            |     |    |  |  |  |  |
| <mark>PS 518.2P</mark>   | Experimental<br>Neurobiochemistry                  | 8          | 4          | 30    | 70         | 100 | 3  |  |  |  |  |
| PO 519.2   | Biochemistry of Diseases                           | 3          | 3          | 30    | 70         | 100 | 3  |  |  |  |  |
|  | Total  |            |            |       |            | 700 | 25 |  |  |  |  |

|                        | ]   | M.Sc. Bioche                  | emistry                        |         |                 |       |         |
|------------------------|---|-------------------------------|--------------------------------|---------|-----------------|-------|---------|
| III Semeste            | r (2+2 Hard core and 1 So                             | ft core pape                  | ers and op                     | en elec | tive 1 pap      | er    |         |
| Code                   | Papers  | Instruction<br>hours/<br>Week | Duration<br>of Exam<br>(hours) | Marks   |                 |       |         |
|                        |   |                               |                                | IA      | End<br>Semester | Total | Credits |
| PH 511.3               | Molecular Biology                                     | 5                             | 3                              | 30      | 70              | 100   | 5       |
| PH 512.3               | Nitrogen Metabolism &<br>Plant Biochemistry           | 4                             | 3                              | 30      | 70              | 100   | 4       |
| PH 513.3P              | Metabolism & clinical<br>Biochemistry                 | 8                             | 3                              | 30      | 70              | 100   | 4       |
| PH 514.3P              | Cell & Molecular Biology                              | 8                             | 3                              | 30      | 70              | 100   | 4       |
| PS 515.3<br>PS 516.3   | Cellular Biochemistry<br>Clinical Biochemistry        | 3                             | 3                              | 30      | 70              | 100   | 3       |
| PO 517.3               | Evolution and Ecology                                 | 3                             | 3                              | 30      | 70              | 100   | 3       |
| 1001/10                | Total   |                               | 5                              |         | , 0             | 600   | 23      |
| IV Semeste             | r (2+1 Hard core and 2+1                              | Soft core pa                  | apers)                         |         |                 |       |         |
| PH 511.4               | Immunology  | 4                             | 3                              | 30      | 70              | 100   | 4       |
| PH 512.4               | Genetics  | 4                             | 3                              | 30      | 70              | 100   | 4       |
| PH 513.4P              | Project   | 10                            | 3                              | 30      | 70              | 100   | 5       |
| <mark>PS 514.4</mark>  | Genetic Engineering &<br>Bioinformatics               | 3                             | 3                              | 30      | 70              | 100   | 3       |
| PS 515.4<br>PS 516.4   | Clinical Toxicology<br>Food Biochemistry              | 3                             | 3                              | 30      | 70              | 100   | 3       |
| <mark>PS 517.4P</mark> | Methods in Genetic<br>Engineering &<br>Bioinformatics | 8                             | 3                              | 30      | 70              | 100   | 3       |
| PS 518.4P              | Experiments in food science                           |                               |                                |         |                 |       |         |
|                        |   |                               |                                |         |                 | 600   | 22      |
|                        | Grand Total   |                               |                                |         |                 | 2500  | 92      |