|             | KAZI NAZRUL  | UNIVERSITY         |          | FACULTY OF SCIENCE   | B.Sc.  | DEGREE PROGRAM<br>HONOURS IN MICRO |          | WITH EFFECT FROM THE ACADEMIC SESSION: 2020-21 |  |   |  |  |           |             |           |              |  |
|-------------|--------------|--------------------|----------|--|--------|------------------------------------|----------|--|--|---|--|--|-----------|-------------|-----------|--------------|--|
| Abbreviated | Discipline   | Abbreviated Degree | Semester | Course Name  | Course | Course Code                        | Course   | L-T-P  | Course   | Sem   |  |  |           | Marks       | Total     | Sem Marks    |  |
| Degree      | Discipline   | Programme          | Semester |  | Type   | Course Code                        | Details  | L-1-F  | Credit   | Credit  | Practical  | Theoretical  | Practical | Theoretical | Marks     | Sem Marks    |  |
|             |              |                    |          | Microbial World and Principles of Microbiology   | С      | BSCHMCBC101                        | CC-1     | 4 - 0 - 4                                      | 6  |   | 30   | 10   | 20        | 40          | 100       |              |  |
|             |              |                    |          | Bacteriology and Systematics   | ·      | BSCHMCBC102                        | CC-2     | 4 - 0 - 4                                      | 6  |   | 30   | 10   | 20        | 40          | 100       | 250 + Marks  |  |
|             |              |                    | I        | Choose from the Pool of Generic Elective Courses offered in 1st Semester by Honours  | GE     | See Pool                           | GEC-1    | See Pool                                       | 6  | 22  |  | Soo  | Pool      |             | Marks of  | of GEC       |  |
|             |              |                    |          | Disciplines other than the Discipline in which Honours course is taken   |        |                                    |          | See 1 001                                      | U  |   |  |  | 1 001     |             | GEC       | or ole       |  |
|             |              |                    |          | Environmental Studies  | AE     | AEE101                             | AECC-1   | 4 - 0 - 0                                      | 4  |   |  | 10   |           | 40          | 50        |              |  |
|             |              |                    |          |  | ,      |                                    |          |  | ,  |   |  |  |           |             | ,         |              |  |
|             |              |                    |          | Basic Biochemistry   | C      | BSCHMCBC201                        | CC-3     | 4 - 0 - 4                                      | 6  |   |  | 10   | _         |             | 100       |              |  |
|             |              |                    |          | Microbial Techniques and Instruments   | Ŭ      | BSCHMCBC202                        | CC-4     | 4 - 0 - 4                                      | 6  |   | 30   | 10   | 20        | 40          | 100       | 250 + Marks  |  |
|             |              |                    | II       | Choose from the Pool of Generic Elective Courses offered in 2nd Semester by Honours  | GE     | See Pool                           | GEC-2    | See Pool                                       | 6  | 22  |  | See  | Pool      |             | Marks of  | of GEC       |  |
|             |              |                    |          | Disciplines other than the Discipline in which Honours course is taken   |        |                                    |          |  |  |   |  |  | 1 001     |             | GEC       | 0.020        |  |
|             |              |                    |          | English/MIL Communication  | AE     | See Pool                           | AECC-2   | 4 - 0 - 0                                      | 4  | Sem   CA Marks   ESE Marks   Theoretical   Practical   Theoretical   Practical   Theoretical   30 | 40   | 50   |           |             |           |              |  |
|             |              |                    |          |  |        |                                    |          |  |  |   | CA Marks   ESE Marks   To   Practical   Theoretical   Marks   See Pool |  |           |             |           |              |  |
|             |              |                    |          | Virology   |        | BSCHMCBC301                        | CC-5     | 4 - 0 - 4                                      | 6  |   |  | 30 10 20 40<br>30 10 20 40<br>See Pool Ma<br>10 40 |           | 100         |           |              |  |
|             |              |                    |          | Microbial Physiology and Metabolism  | С      | BSCHMCBC302                        | CC-6     | 4 - 0 - 4                                      |  |   |  |  | 100       |             |           |              |  |
|             |              |                    |          | Cell and Molecular Biology   |        | BSCHMCBC303                        | CC-7     | 4 - 0 - 4                                      | 6  |   | 30   | 10   | 20        | 40          | 100       | 350 + Marks  |  |
|             |              |                    | III      | Choose from the Pool of Generic Elective Courses offered in 3rd Semester by Honours Disciplines other than the Discipline in which Honours course is taken | GE     | See Pool                           | GEC-3    | See Pool                                       | 30   10   20   40    -0   4     28     30   10   20   40    -0   4     10   40    -0   4   10   40 |   | Marks of<br>GEC  | of GEC   |           |             |           |              |  |
|             |              |                    |          | Microbial Quality Control in Food & Pharmaceutical Industries  (Any One)   | SE     | BSCHMCBSE301                       | SEC-1    | 4 - 0 - 0                                      | 4  |   | 10   |  |           | 50          |           |              |  |
|             |              |                    |          | Microbial Diagnostics and Public Health  | SL     | BSCHMCBSE302                       | BEC 1    | 4 - 0 - 0                                      | 0 10   | 10  |  | 40   | 50        |             |           |              |  |
| BSCH        | MICROBIOLOGY | BSCHMCB            |          |  |        |                                    |          |  |  |   | _  |  |           |             |           |              |  |
|             |              |                    |          | Microbial Genetics   |        | BSCHMCBC401                        | CC-8     | 4 - 0 - 4                                      | 6  | <u> </u>  |  |  |           |             | 100       |              |  |
|             |              |                    |          | Environmental Microbiology and Microbial Ecology   | С      | BSCHMCBC402                        | CC-9     | 4 - 0 - 4                                      | 6  |   |  |  | _         |             |           |              |  |
|             |              |                    |          | Industrial Microbiology  |        | BSCHMCBC403                        | CC-10    | 4 - 0 - 4                                      | 6  |   | 30   | 10   | 20        | 40          | 40 100    | 350 + Marks  |  |
|             |              |                    | IV       | Choose from the Pool of Generic Elective Courses offered in 4th Semester by Honours  | GE     | See Pool                           | GEC-4    | See Pool                                       | 6  | 28  |  | See  | Pool      |             | Marks of  | of GEC       |  |
|             |              |                    |          | Disciplines other than the Discipline in which Honours course is taken   |        |                                    |          |  |  |   |  |  |           |             | GEC       |              |  |
|             |              |                    |          | Food Fermentation Techniques (Any One)   | SE     | BSCHMCBSE401                       | SEC-2    | 4 - 0 - 0                                      | 4  | 30  |  |  |           |             |           | 50           |  |
|             |              |                    |          | Microbial Products   |        | BSCHMCBSE402                       |          | 4 - 0 - 0                                      |  |   |  |  |           |             |           |              |  |
|             |              |                    |          | Dr. e. 10 v  | 1      | Dagin (and and                     | 00.11    | 1 4 0 4  |  |   | 28 See Pool  10 40  10 40  10 40                                       | 10   | 100       | 1           |           |              |  |
|             |              |                    |          | Medical & Veterinary Microbiology and Immunology   | C      | BSCHMCBC501<br>BSCHMCBC502         | CC-11    | 4-0-4  | 6  |   |  |  |           |             | 100       |              |  |
|             |              |                    | v        | Agriculture, Food and Dairy Microbiology   |        |                                    | CC-12    |  | 6  | 24  |  |  |           |             | 100       | 400          |  |
|             |              |                    | v        | Biophysics, Biomathematics & Biostatistics   | DSE    | BSCHMCBDSE501                      | DSEC-1 & | 4 - 0 - 4                                      | 6 X 2  | 24  |  |  |           |             | 100 X 2   | 400          |  |
|             |              |                    |          | Heredity and Evolution (Any Two) Microbial Biotechnology   | DSE    | BSCHMCBDSE502<br>BSCHMCBDSE503     | DSEC-2   | 4 - 0 - 4                                      | 0 A 2  |   |  |  |           |             | 100 A 2   |              |  |
|             |              |                    |          | Microbial Biolechnology  |        | B2CHMCBD2E303                      |          | 4-0-4  |  |   | 30   | 10   | 20        | 40          |           |              |  |
|             |              |                    |          | Advanced Microbiology  | I      | BSCHMCBC601                        | CC-13    | 4-0-4  | 6  |   | 30   | 10   | 20        | 40          | 100       | ı            |  |
|             |              |                    |          | Recombinant DNA Technology   | С      | BSCHMCBC602                        | CC-13    | 4-0-4  | 6  | 24  |  |  | _         |             | 100       | 1            |  |
|             |              |                    | VI       | Project Work on Microbiology of Societal Importance  |        | BSCHMCBC602<br>BSCHMCBDSE601       |          | 0 - 0 - 12                                     | U  |   |  | 10   |           | 40          | 100       | 400          |  |
|             |              |                    | VI VI    | Basic Computer and Bioinformatics (Any Two)  | DSE    | BSCHMCBDSE602                      | DSEC-3 & | 4-0-4  | 6 X 2  | 2-7   |  | 10   |           | 40          | 100 X 2   | 400          |  |
|             |              |                    |          | Mycology and Phycology   | DOL    | BSCHMCBDSE603                      | DSEC-4   | 4-0-4  | 0712   |   |  |  |           |             | 100 A 2   |              |  |
|             |              |                    |          | Total Credit and Marks   |        | DSCIINCDDSE003                     |          | 4-0-4  | l .  | 148   |  | 10   | 20        | 70          | 2000 + N  | Aarks of GEC |  |
|             |              |                    | 1        | Total Create and Pauling   | l      | l .                                |          |  |  | 140   | I  |  |           |             | 2000 T IV | IS OF GEC    |  |

Abbreviations: C= Core; CC=Core Course; AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; GE= Generic Elective; GEC= Generic Elective; GEC= Skill Enhancement; SEC= Skill Enhancement Course; DSE= Discipline Specific Elective; DSEC= Discipline Specific Elective; Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable

Generic Elective Courses (GEC): Students of a particular Honours Course will choose from the Pool of Generic Elective Courses offered by Disciplines other than the Discipline in which Honours course is taken

|  | Semesterwise Pool of Generic Elective Courses offered by th | nis Disciplin | e                                     |        |              |         |           |        |        |           |             |           |             |       |           |  |
|--|---|---------------|---------------------------------------|--------|--------------|---------|-----------|--------|--------|-----------|-------------|-----------|-------------|-------|-----------|--|
|  | Discipline  | Semester      | Course Name                           | Course | Course Code  | Course  | L - T - P | Course | Sem    | CA        | Marks       | ESE       | Marks       | Total | Sem Marks |  |
|  | Discipline  | Schlester     | Course Name                           | Type   | Course Coue  | Details | L-1-1     | Credit | Credit | Practical | Theoretical | Practical | Theoretical | Marks | Sem Marks |  |
|  |   | I             | Microbial World and Diversity         |        | BSCHMCBGE101 | GEC-1   | 4 - 0 - 4 | 6      |        | 30        | 10          | 20        | 40          | 100   |           |  |
|  | MICROBIOLOGY  | II            | Bacteriology and Virology             | GE     | BSCHMCBGE201 | GEC-2   | 4 - 0 - 4 | 6      | NIA    | 30        | 10          | 20        | 40          | 100   | NIA       |  |
|  | WICKOBIOLOGI  | III           | Industrial and Food Microbiology      | GE     | BSCHMCBGE301 | GEC-3   | 4 - 0 - 4 | 6      | NA S   | 30        | 10          | 20        | 40          | 100   | ) NA      |  |
|  |   | IV            | Genetic Engineering and Biotechnology |        | BSCHMCBGE401 | GEC-4   | 4 - 0 - 4 | 6      |        | 30        | 10          | 20        | 40          | 100   |           |  |

| Pool of Communication Courses offered as Ability Enhancer | ment Compu | Isary Courses |        |             |         |          |        |        |                       |                       |       |             |
|---|------------|---------------|--------|-------------|---------|----------|--------|--------|-----------------------|-----------------------|-------|-------------|
| Discipline  | Semester   | Course Name   | Course | Course Code | Course  | I . T. P | Course | Sem    | CA Marks              | ESE Marks             | Total | Sem Marks   |
| Discipline  | Scincstei  | Course Name   | Type   | Course Cour | Details | L-1-F    | Credit | Credit | Practical Theoretical | Practical Theoretical | Marks | Sein Mai Ks |

|                           |                           |                       | English Communication |           |          | AECCE201 |           | 4 - 0 - 0 |     |     |    | 10 | 40 |       |    |
|---------------------------|---------------------------|-----------------------|-----------------------|-----------|----------|----------|-----------|-----------|-----|-----|----|----|----|-------|----|
| English/MIL Communication | TT                        | Bengali Communication | (Any One)             | AE        | AECCB201 | AECC-2   | 4 - 0 - 0 | 4         | NIA |     | 10 | 40 | 50 | N/A   |    |
|                           | English/MIL Communication | 11                    | Hindi Communication   | (Any One) | AL       | AECCH201 | AECC-2    | 4 - 0 - 0 | 4   | INA | Ī  | 10 | 40 | 40 40 | NA |
|                           |                           |                       | Urdu Communication    |           |          | AECCU201 |           | 4 - 0 - 0 |     |     |    | 10 | 40 |       |    |
|                           |                           |                       |                       |           |          |          |           |           |     |     |    |    |    |       |    |