

**School Name: School Computing Science & Engineering**

**Program Name: B.Sc. (Computer Science)**

**Scheme: 2019-2022**

| <b>Semester 1</b>  |                    |  |          |          |          |          |                           |            |            |
|--------------------|--------------------|--|----------|----------|----------|----------|---------------------------|------------|------------|
| <b>Sl. No</b>      | <b>Course Code</b> | <b>Name of the Course</b>                |          |          |          |          | <b>Assessment Pattern</b> |            |            |
|                    |                    |  | <b>L</b> | <b>T</b> | <b>P</b> | <b>C</b> | <b>IA</b>                 | <b>MTE</b> | <b>ETE</b> |
| 1                  | BSCS1110           | Discrete Mathematics                     | 3        | 1        | 0        | 4        | 20                        | 30         | 50         |
| 2                  | BSCS1120           | Computer System Organization             | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 3                  | BSCS1130           | Computer Programming using 'C'           | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 4                  | PHYS1011           | Applied Physics                          | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 5                  | BSCS1131           | Computer Programming using 'C' Lab       | 0        | 0        | 2        | 1        | 50                        | -          | 50         |
| 6                  | BSCS1141           | Computer System Organization Lab         | 0        | 0        | 2        | 1        | 50                        | -          | 50         |
| 7                  | JAPA1001           | Japanese-I                               | 0        | 0        | 2        | 1        | 50                        | -          | 50         |
| 8                  | SLBC1001           | Basic English                            | 0        | 0        | 4        | 2        | 50                        | -          | 50         |
| <b>Semester II</b> |                    |  |          |          |          |          |                           |            |            |
| <b>Sl No</b>       | <b>Course Code</b> | <b>Name of the Course</b>                |          |          |          |          | <b>Assessment Pattern</b> |            |            |
|                    |                    |  | <b>L</b> | <b>T</b> | <b>P</b> | <b>C</b> | <b>IA</b>                 | <b>MTE</b> | <b>ETE</b> |
| 1                  | EVS 101            | Environment Studies                      | 2        | 1        | 0        | 3        | 20                        | 30         | 50         |
| 2                  | BSCS1210           | Numerical Methods for Problem solving    | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 3                  | BSCS1220           | Data Structure and Algorithms            | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 4                  | BSCS1230           | Operating Systems                        | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 5                  | BSCS1240           | Object Oriented Programming with C++     | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 6                  | BSCS1260           | Introduction to Data Science             | 3        | 0        | 0        | 3        | 20                        | 30         | 50         |
| 7                  | BSCS1221           | Data Structures and Algorithms Lab       | 0        | 0        | 2        | 1        | 50                        | -          | 50         |
| 8                  | BSCS9011           | iOS, Android APP Development Lab         | 0        | 0        | 4        | 2        | 50                        | -          | 50         |
| 9                  | BSCS1241           | Object Oriented Programming with C++ Lab | 0        | 0        | 2        | 1        | 50                        | -          | 50         |

|    |          |   |   |   |   |   |    |   |    |
|----|----------|---|---|---|---|---|----|---|----|
| 10 | BSCS1251 | Application oriented programming using Python | 0 | 0 | 4 | 2 | 50 | - | 50 |
| 11 | SLBC1002 | Professional Communication                    | 2 | 0 | 2 | 3 | 50 | - | 50 |
| 12 | JAPA1002 | Japanese-II                                   | 0 | 0 | 2 | 1 | 50 | - | 50 |

### Semester III

| Sl No | Course Code | Name of the Course                      |   |   |   |   | Assessment Pattern |     |     |
|-------|-------------|---|---|---|---|---|--------------------|-----|-----|
|       |             |   | L | T | P | C | IA                 | MTE | ETE |
| 1     | BSCS2310    | Engineering Economics and Management    | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 2     | BSCS2320    | Database Management System              | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 3     | BSCS2313    | Java Programming                        | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 4     | BSCS2340    | Computer Graphics                       | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 5     | BSCS2315    | Design and Analysis of Algorithms       | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 6     |             | Elective-I                              | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 7     | LLL231      | Professional Communication and Aptitude | 0 | 0 | 4 | 2 | 50                 | -   | 50  |
| 8     | BSCS2321    | Database Management System Lab          | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 9     | BSCS2331    | Java Programming Lab                    | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 10    | BSCS2341    | Computer Graphics Lab                   | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 11    | BSCS2325    | Design and Analysis of Algorithms Lab   | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 12    | JAPA2003    | Japanese-III                            | 0 | 0 | 2 | 1 | 70                 | -   | 30  |

### Semester IV

| Sl No | Course Code | Name of the Course                           |   |   |   |   | Assessment Pattern |     |     |
|-------|-------------|--|---|---|---|---|--------------------|-----|-----|
|       |             |  | L | T | P | C | IA                 | MTE | ETE |
| 1     | BSCS2460    | Artificial Intelligence and Machine Learning | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 2     | BSCS2470    | Cryptographic and Network Security           | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 3     | BSCS2430    | Computer Networks                            | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 4     | BSCS2440    | Software Engineering                         | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 5     | BSCS2450    | Internet and Web Technology                  | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 6     |             | Elective-II                                  | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 7     | LLL245      | Campus-to-Corporate                          | 0 | 0 | 4 | 2 | 70                 | -   | 30  |

|    |          |   |   |   |   |   |    |   |    |
|----|----------|---|---|---|---|---|----|---|----|
| 8  | BSCS2461 | Artificial Intelligence and Machine Learning using Python Lab | 0 | 0 | 2 | 1 | 70 | - | 30 |
| 9  | BSCS2471 | Cryptographic and Network Security Lab                        | 0 | 0 | 2 | 1 | 70 | - | 30 |
| 10 | BSCS2431 | Computer Networks Lab   | 0 | 0 | 2 | 1 | 70 | - | 30 |
| 11 | BSCS2441 | Software Engineering Lab                                      | 0 | 0 | 2 | 1 | 70 | - | 30 |
| 12 | BSCS2451 | Internet and Web Technology Lab                               | 0 | 0 | 2 | 1 | 70 | - | 30 |

### Semester V

| Sl No | Course Code | Name of the Course                      |   |   |   |   | Assessment Pattern |     |     |
|-------|-------------|---|---|---|---|---|--------------------|-----|-----|
|       |             |   | L | T | P | C | IA                 | MTE | ETE |
| 1     | BSCS3510    | Open Source Technologies                | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 2     | BSCS3530    | Data Mining and Data Warehousing        | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 3     | BSCS3550    | Microprocessor and Microcontroller      | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 4     | BSCS3560    | Linux Administration                    | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 5     | BSCS3570    | Advances in Databases                   | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 6     | BSCS3580    | Object Oriented Analysis and Design     | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 7     |             | Elective-III                            | 3 | 0 | 0 | 3 | 20                 | 30  | 50  |
| 8     | BSCS3511    | Open Source Lab                         | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 9     | BSCS3541    | Object Oriented Analysis and Design Lab | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 10    | BSCS3551    | Microprocessor and Microcontroller Lab  | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 11    | BSCS3561    | Linux Administration Lab                | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 12    | BSCS3571    | Advances in Databases Lab               | 0 | 0 | 2 | 1 | 70                 | -   | 30  |
| 13    | BSCS3581    | Project Work – 1                        | 0 | 0 | 0 | 5 | 50                 | -   | 50  |

### Semester VI

| Sl No | Course Code | Name of the Course |   |   |    |    | Assessment Pattern |     |     |
|-------|-------------|--------------------|---|---|----|----|--------------------|-----|-----|
|       |             |                    | L | T | P  | C  | IA                 | MTE | ETE |
| 1     | BSCS3611    | Project Work-2     | 0 | 0 | 30 | 15 | 70                 | -   | 30  |