

## BS Software Engineering

| Sections: 14, M1 to M14 |   |                 |
|-------------------------|---|-----------------|
| Course Code             | Course Title                              | No. of Sections |
| SECP1013                | Introduction to Computing                 | 14              |
| SECP1011                | Introduction to Computing Lab             | 14              |
| SEHU1833                | English Composition & Comprehension       | 14              |
| SEHU1823                | Islamic and Religious Studies             | 14              |
| SESS1723                | Basic Electronics                         | 14              |
| SEHU1813                | Pakistan Studies                          | 14              |
| SESS1773                | Pre-calculus (Only medical background)    | 2               |
| Sections: 5, N1 to N5   |   |                 |
| Course Code             | Course Title                              | No. of Sections |
| SECP1023                | Programming Fundamentals                  | 5               |
| SECP1021                | Programming Fundamentals Lab              | 5               |
| SEHU1863                | Communication & Presentation Skills       | 5               |
| SEAD1413                | Discrete Structures                       | 5               |
| SESE1113                | Software Engineering                      | 5               |
| SESS1713                | Calculus and Analytical Geometry          | 5               |
| SESS1783                | Elementary Algebra                        | 1               |
| Sections: 9, O1 to O9   |   |                 |
| Course Code             | Course Title                              | No. of Sections |
| SECP2033                | Object Oriented Programming               | 9               |
| SECP2031                | Object Oriented Programming Lab           | 9               |
| SESD2213                | Software Requirements Engineering         | 9               |
| SEAD3423                | Introduction to Database Systems - Theory | 9               |

|                   |  |   |                        |
|-------------------|--|---|------------------------|
| <b>Seme</b>       | SEAD3421   | Introduction to Database Systems – Lab                                | 9                      |
|                   | SESS2743   | Linear Algebra  | 9                      |
|                   | <b>Uni- Elective Select any 1 course from the following:</b> |   |                        |
|                   | SEGE1913   | Introduction to Business (ITOB-SE)                                    | 3                      |
|                   | SEGE3963   | Fundamental of Marketing (FOM-SE)                                     | 3                      |
|                   | SEGE1973   | Financial Accounting  | 3                      |
| <b>Semester 4</b> | <b>Sections: 3, P1 to P3</b>                                 |   |                        |
|                   | <b>Course Code</b>   | <b>Course Title</b>   | <b>No. of Sections</b> |
|                   | SECP2043   | Data Structure & Algorithms (DSA-SE-T) – Theory                       | 3                      |
|                   | SECP2041   | Data Structure & Algorithms (DSA-SE-L) – Lab                          | 3                      |
|                   | SESD2222   | Software Design & Architecture (SDA-SE-T) - Theory                    | 3                      |
|                   | SESD2221   | Software Design & Architecture (SDA-SE-L) – Lab                       | 3                      |
|                   | SESD3233   | Web Engineering   | 3                      |
|                   | SEHU2873   | Technical and Business Writing (Eng-III-SE)                           | 3                      |
|                   | SESS2733   | Probability and Statistics (PROB-SE)                                  | 3                      |
| <b>Semester 5</b> | <b>Sections: 9, Q1 to Q9</b>                                 |   |                        |
|                   | <b>Course Code</b>   | <b>Course Title</b>   | <b>No. of Sections</b> |
|                   | SENS3513   | Operating Systems (OS-SE-T) Theory                                    | 9                      |
|                   | SENS3511   | Operating Systems (OS-SE-L) Lab                                       | 9                      |
|                   | SEAD3423   | Introduction to Database Systems (DB-SE-T) Theory                     | 9                      |
|                   | SEAD3421   | Introduction to Database Systems (DB-SE-L) Lab                        | 9                      |
|                   | SESD3233   | Web Engineering (WEB-E-SE)  | 9                      |
|                   | SESE3133   | Formal Methods in Software Engineering (FM-SE) – (SE Supporting - II) | 9                      |
|                   | <b>Uni- Elective Select any 1 course from the following:</b> |   |                        |
|                   | SEGE2933   | Technology Entrepreneurship (T-ENT-SE)                                | 5                      |

|                     |                            |  |                        |
|---------------------|----------------------------|--|------------------------|
|                     | SEGE1923                   | Human Resource Management                                    | 4                      |
| Semester 6          | <b>Sections: R1, R2</b>    |  |                        |
|                     | <b>Course Code</b>         | <b>Course Title</b>  | <b>No. of Sections</b> |
|                     | SESM3313                   | Software Quality Engineering (SQE-SE)                        | 2                      |
|                     | SENS3523                   | Computer Comm. and Networks (CCN-SE-T) Theory                | 2                      |
|                     | SENS3521                   | Computer Comm. and Networks (CCN-SE-L) Lab                   | 2                      |
|                     | SESD3242                   | Software Construction and Development (SCD-SE-T) - Theory    | 2                      |
|                     | SESD3241                   | Software Construction and Development (SCD-SE-L) –Lab        | 2                      |
|                     | <b>SE- Elective:</b>       |  |                        |
|                     | SECP3053                   | Mobile Application Development (MAD-SE) (SE Elective – I)    | 1                      |
|                     | SEST3683                   | Game Design  | 1                      |
|                     | <b>Supporting Courses:</b> |  |                        |
|                     | SESS3753                   | Stochastic Processes(SE Supporting)                          | 1                      |
|                     | SESS3763                   | Operations Research (OR-SE) (SE Supporting – III)            | 1                      |
| Semester 7          | <b>Sections: 4, S1-S4</b>  |  |                        |
|                     | <b>Course Code</b>         | <b>Course Title</b>  | <b>No. of Sections</b> |
|                     | SENS4533                   | Information Security – (ISEC-SE)                             | 4                      |
|                     | SESM4323                   | Software Project Management – (SPM-SE)                       | 4                      |
|                     | SESD4913                   | Final Year Project I – (FYP-SE-I)                            | 1                      |
|                     | SESE4143                   | Software Re-engineering – (SREE-SE)                          | 4                      |
|                     | <b>SE- Elective:</b>       |  |                        |
|                     | SECP4063                   | Advance Web Programming (AWP-SE) (SE Elective – III)         | 3                      |
|                     | SEAD4483                   | Introduction to Image Processing                             | 3                      |
|                     | SEAD3453                   | Introduction to Machine Learning (IML-SE) (SE Elective – II) | 2                      |
| <b>Sections: T1</b> |                            |  |                        |

| Semester 8 | Course Code                          | Course Title                                 | No. of Sections |
|------------|--------------------------------------|--|-----------------|
|            | SEGE3953                             | Professional Practices                       | 1               |
|            | SESD4923                             | Final Year Project II                        | 1               |
|            | <b>SE- Elective:</b>                 |  |                 |
|            | SECP4073                             | Programming for Big Data                     | 1               |
|            | CSAL4333                             | Introduction to Deep Learning                | 1               |
|            | SEST3673                             | Introduction to Cloud Computing              | 1               |
|            | SEGE3993                             | Fundamentals of Enterprise Resource Planning | 1               |
|            | SEAD4463                             | Introduction to Natural Language Processing  | 1               |
|            | <b>Uni- Elective:</b>                |  |                 |
| SEGE4963   | Organizational Behaviour and Culture | 1  |                 |















