

| Scheme of Studies Batch-2020 & Onward |                   |                                                |            |    |       |
|---------------------------------------|-------------------|------------------------------------------------|------------|----|-------|
| First Year<br>Fall Semester           | Course Code       | Course Title                                   | Credit Hrs |    |       |
|                                       |                   |                                                | Th         | Pr | Total |
|                                       | EE-125            | Basic Electrical Engineering                   | 3          | 1  | 4     |
|                                       | PH-122            | Applied Physics                                | 3          | 1  | 4     |
|                                       | HS-111            | Functional English                             | 2          | 0  | 2     |
|                                       | ME-116            | Basic Mechanical Engineering                   | 3          | 0  | 3     |
|                                       | MT-114            | Calculus                                       | 3          | 0  | 3     |
|                                       | CS-113            | Introduction to Computing                      | 1          | 1  | 2     |
|                                       | Total             |                                                | 15         | 3  | 18    |
| First Year<br>Spring Semester         | Course Code       | Course Title                                   | Credit Hrs |    |       |
|                                       |                   |                                                | Th         | Pr | Total |
|                                       | EE-156            | Engineering Drawing                            | 0          | 2  | 2     |
|                                       | EE-126            | Circuit Analysis                               | 3          | 1  | 4     |
|                                       | MT-227            | Differential Equations                         | 3          | 0  | 3     |
|                                       | CE-109            | Engineering Surveying-I                        | 2          | 1  | 3     |
|                                       | EE-163            | Computers and Programming                      | 3          | 1  | 4     |
|                                       | HS-105/ HS-127    | Pak. Studies/<br>Pak. Studies (For Foreigners) | 2          | 0  | 2     |
|                                       | Total             |                                                | 13         | 5  | 18    |
| Second Year<br>Fall Semester          | Course Code       | Course Title                                   | Credit Hrs |    |       |
|                                       |                   |                                                | Th         | Pr | Total |
|                                       | EL-240            | Electronic Devices and Circuits                | 3          | 1  | 4     |
|                                       | EE-264            | Data Structures and Algorithms                 | 2          | 1  | 3     |
|                                       | MT-272            | Linear Algebra and Geometry                    | 3          | 0  | 3     |
|                                       | MT-226            | Multi Variable Calculus                        | 3          | 0  | 3     |
|                                       | HS-214            | Academic Writing                               | 3          | 0  | 3     |
|                                       | HS-205/<br>HS-209 | Islamic Studies / Ethical Behavior             | 2          | 0  | 2     |
|                                       | Total             |                                                | 16         | 2  | 18    |
| Second Year<br>Spring Semester        | Course Code       | Course Title                                   | Credit Hrs |    |       |
|                                       |                   |                                                | Th         | Pr | Total |
|                                       | EE-282            | Electromagnetic Fields                         | 3          | 0  | 3     |
|                                       | EE-223            | Instrumentation and Measurement                | 2          | 1  | 3     |
|                                       | EE-232            | Signals and Systems                            | 3          | 1  | 4     |
|                                       | TC-201            | Digital Logic Design                           | 2          | 1  | 3     |
|                                       | MT-331            | Probability and Statistics                     | 3          | 0  | 3     |
|                                       | Total             |                                                | 13         | 3  | 16    |

| Third Year<br>Fall Semester   | Course Code | Course Title                                  | Credit Hrs |    |       |
|-------------------------------|-------------|-----------------------------------------------|------------|----|-------|
|                               |             |                                               | Th         | Pr | Total |
|                               | EE-346      | Electrical Machines I                         | 2          | 1  | 3     |
|                               | EE-395      | Digital Signal Processing                     | 2          | 1  | 3     |
|                               | EE-359      | Electrical Power Distribution and Utilization | 3          | 1  | 4     |
|                               | EE-313      | Power Electronics                             | 3          | 1  | 4     |
|                               | MT-442      | Numerical Methods                             | 3          | 0  | 3     |
|                               | Total       |                                               | 13         | 4  | 17    |
| Third Year<br>Spring Semester | Course Code | Course Title                                  | Credit Hrs |    |       |
|                               |             |                                               | Th         | Pr | Total |
|                               | EE-362      | Power System Analysis                         | 3          | 1  | 4     |
|                               | TC-306      | Communication Systems                         | 3          | 0  | 3     |
|                               | HS-304      | Business Communcation & Ethics                | 3          | 0  | 3     |
|                               | EE-347      | Electrical Machines II                        | 2          | 1  | 3     |
|                               | EE-354      | Embedded Systems                              | 2          | 1  | 3     |
|                               | Total       |                                               | 13         | 3  | 16    |
| Final Year<br>Fall Semester   | Course Code | Course Title                                  | Credit Hrs |    |       |
|                               |             |                                               | Th         | Pr | Total |
|                               | EE-457      | Electrical Power System Protection            | 3          | 1  | 4     |
|                               | EF-304      | Occupational Safety and Health                | 2          | 0  | 2     |
|                               | EE-401      | *Electrical Engineering Project               | 0          | 3  | 3     |
|                               | EE-352      | Electrical Power Transmission                 | 3          | 0  | 3     |
|                               | EE-375      | Feedback Control Systems                      | 3          | 1  | 4     |
|                               | Total       |                                               | 11         | 5  | 16    |
| Final Year<br>Spring Semester | Course Code | Course Title                                  | Credit Hrs |    |       |
|                               |             |                                               | Th         | Pr | Total |
|                               | MG-482      | Organizational Behaviour                      | 3          | 0  | 3     |
|                               | MG-481      | Entrepreneurship                              | 3          | 0  | 3     |
|                               | CS-439      | Computer Communication Networks               | 2          | 0  | 2     |
|                               | EE-401      | Electrical Engineering Project                | 0          | 3  | 3     |
|                               | EE-414      | Power Generation                              | 3          | 0  | 3     |
|                               | EF-305      | Engineering Economics and Management          | 3          | 0  | 3     |
|                               | Total       |                                               | 14         | 3  | 17    |