

## CURRICULAR STRUCTURE

**T:** Theory    **P:** Practical    **AEC:** Ability Enhancement Course    **SEC:** Skill Enhancement Course    **VAC:** Value Addition Course

The numeral against the T / P cell indicates the credit assigned for the course. e.g.: 

|   |   |
|---|---|
| T | 3 |
|---|---|

 indicates Theory course with 3 credits.

*Note:-Refer the detailed syllabus for exact course codes*

|             | Semester         |   |              |   |                      |   |                        |   |                      |   |                                       |   |                              |   |                                                     |   |
|-------------|------------------|---|--------------|---|----------------------|---|------------------------|---|----------------------|---|---------------------------------------|---|------------------------------|---|-----------------------------------------------------|---|
| Course Type | I                |   | II           |   | III                  |   | IV                     |   | V                    |   | VI                                    |   | VII                          |   | VIII                                                |   |
| Core-1      | T                | 3 | T            | 3 | T                    | 3 | T                      | 3 | T                    | 3 | T                                     | 3 | T                            | 3 | T                                                   | 3 |
|             | General Pharmacy |   | Biochemistry |   | General Pharmacology |   | Herbal Drug Technology |   | Biomedical Chemistry |   | Biopharmaceutics and Pharmacokinetics |   | Modern Analytical Techniques |   | Sterile Dosage Form and Novel Drug Delivery Systems |   |
| Core-2      | P                | 1 | P            | 1 | P                    | 1 | P                      | 1 | P                    | 1 | P                                     | 1 | P                            | 1 | P                                                   | 2 |
|             | General Pharmacy |   | Biochemistry |   | General Pharmacology |   | Herbal Drug Technology |   | Biomedical Chemistry |   | Biopharmaceutics and Pharmacokinetics |   | Modern Analytical Techniques |   | Sterile Dosage Form and Novel Drug Delivery Systems |   |

| Course Type | I                                               |   | II                                               |   | III                                        |   | IV                                |   | V                                      |   | VI                           |   | VII                                |   | VIII                                                                    |   |
|-------------|-------------------------------------------------|---|--------------------------------------------------|---|--------------------------------------------|---|-----------------------------------|---|----------------------------------------|---|------------------------------|---|------------------------------------|---|-------------------------------------------------------------------------|---|
| Core-3      | T                                               | 1 | T                                                | 4 | T                                          | 3 | T                                 | 3 | T                                      | 3 | T                            | 3 | T                                  | 3 | T                                                                       | 3 |
|             | Healthcare Psychology and Communication Skills  |   | Human Anatomy, Physiology and Pathophysiology II |   | Heterocyclic Compounds and Stereochemistry |   | Medicinal Chemistry               |   | Industrial Pharmacognosy               |   | Pharmaceutical Analysis      |   | Biostatistics Research methodology |   | Industrial Pharmacy and Facility Design                                 |   |
| Core-4      | P                                               | 1 | P                                                | 1 | P                                          | 1 | P                                 | 1 | P                                      | 1 | P                            | 2 | T                                  | 3 | T                                                                       | 2 |
|             | Healthcare Psychology and Communication Skills  |   | Human Anatomy, Physiology and Pathophysiology II |   | Heterocyclic Compounds and Stereochemistry |   | Medicinal Chemistry               |   | Industrial Pharmacognosy               |   | Pharmaceutical Analysis      |   | Pharmacovigilance                  |   | Clinical Pharmacotherapeutics                                           |   |
| Core-5      | T                                               | 4 | T                                                | 4 | T                                          | 3 | T                                 | 3 | T                                      | 2 | T                            | 3 | T                                  | 3 | T                                                                       | 2 |
|             | Human Anatomy, Physiology and Pathophysiology I |   | Pharmaceutical Organic Chemistry                 |   | Pharmaceutical Dosage Forms I              |   | Pharmaceutical Biotechnology      |   | Pharmaceutical Dosage Forms II         |   | Advanced Pharmacognosy       |   | Pharmacy Practice                  |   | Pharmaceutical Management                                               |   |
| Core-6      | P                                               | 1 | P                                                | 1 | P                                          | 1 | P                                 | 1 | P                                      | 1 | T                            | 3 | T                                  | 2 | T                                                                       | 2 |
|             | Human Anatomy, Physiology and Pathophysiology I |   | Pharmaceutical Organic Chemistry                 |   | Pharmaceutical Dosage Forms I              |   | Pharmaceutical Biotechnology      |   | Pharmaceutical Dosage Forms II         |   | Pharmaceutical Jurisprudence |   | Cosmetics and Cosmeceuticals       |   | Ethical Considerations and Translational Applications of AI in Pharmacy |   |
| Core-7      | T                                               | 3 | T                                                | 4 | T                                          | 3 | T                                 | 2 | T                                      | 3 | T                            | 2 | T                                  | 2 | P                                                                       | 1 |
|             | Introduction To Pharmacognosy                   |   | Pharmacognosy and Phytochemistry                 |   | Pharmaceutical Engineering                 |   | Social Pharmacy and Public Health |   | Systemic Pharmacology and Chemotherapy |   | Intellectual Property Rights |   | AI in Clinical applications        |   | Pharmaceutical Marketing Skills                                         |   |

| Course Type | I                                                                 |   | II                                                                   |   | III                                                         |   | IV                                |   | V                                      |   | VI                                         |   | VII                |   | VIII             |   |
|-------------|-------------------------------------------------------------------|---|----------------------------------------------------------------------|---|-------------------------------------------------------------|---|-----------------------------------|---|----------------------------------------|---|--------------------------------------------|---|--------------------|---|------------------|---|
| Core-8      | P                                                                 | 1 | P                                                                    | 1 | T                                                           | 3 | P                                 | 1 | P                                      | 1 | P                                          | 2 | T                  | 2 | —                |   |
|             | Introduction To Pharmacognosy                                     |   | Pharmacognosy and Phytochemistry                                     |   | Pharmaceutical Microbiology                                 |   | Social Pharmacy and Public Health |   | Systemic Pharmacology and Chemotherapy |   | AI applications in Pharmaceutical Sciences |   | Regulatory Affairs |   | —                |   |
| Core-9      | T                                                                 | 3 | T                                                                    | 3 | T                                                           | 2 | T                                 | 2 | T                                      | 3 | —                                          |   | —                  |   | —                |   |
|             | Pharmaceutical Inorganic and Analytical Chemistry                 |   | Physical Pharmaceutics                                               |   | Introduction to Machine Learning in Pharmaceutical Sciences |   | Systemic Pharmacology I           |   | Pharmaceutical Quality Assurance       |   | —                                          |   | —                  |   | —                |   |
| Core-10     | P                                                                 | 1 | P                                                                    | 1 | T                                                           | 1 | P                                 | 1 | T                                      | 2 | —                                          |   | —                  |   | —                |   |
|             | Pharmaceutical Inorganic and Analytical Chemistry                 |   | Physical Pharmaceutics                                               |   | Environmental Science                                       |   | Systemic Pharmacology I           |   | Innovation and Startup Ecosystem       |   | —                                          |   | —                  |   | —                |   |
| Core-11     | T                                                                 | 2 | T                                                                    | 3 | T                                                           | 1 | —                                 |   | —                                      |   | —                                          |   | —                  |   | —                |   |
|             | Basics of Python Programming for Pharmaceutical Sciences (Theory) |   | Applied Biostatistics and Data Analytics for Pharmaceutical Sciences |   | Ethics and Universal Human Values                           |   | —                                 |   | —                                      |   | —                                          |   | —                  |   | —                |   |
| Internship  | —                                                                 |   | —                                                                    |   | —                                                           |   | —                                 | 4 | —                                      |   | —                                          | 4 | —                  |   | —                |   |
|             | —                                                                 |   | —                                                                    |   | —                                                           |   | Internship (Mandatory)            |   | —                                      |   | Internship (Mandatory)                     |   | —                  |   | —                |   |
| Research    | —                                                                 |   | —                                                                    |   | —                                                           |   | —                                 |   | —                                      |   | —                                          |   | —                  | 6 | —                | 6 |
|             | —                                                                 |   | —                                                                    |   | —                                                           |   | —                                 |   | —                                      |   | —                                          |   | Research Project   |   | Research Project |   |

| Course Type          | I   | II         | III        |    | IV | V  | VI         |    | VII        |   | VIII       |   |
|----------------------|-----|------------|------------|----|----|----|------------|----|------------|---|------------|---|
| AEC                  | —   | —          | P          | 1  | —  | —  | T          | 1  | T          | 1 | T          | 2 |
|                      | —   | —          | Elective 2 |    | —  | —  | Elective 3 |    | Elective 6 |   | Elective 7 |   |
| SEC                  | —   | P          | 1          | —  | —  | —  | P          | 1  | —          | — | —          | — |
|                      | —   | Elective 1 |            | —  | —  | —  | Elective 4 |    | —          | — | —          | — |
| VAC                  | —   | —          | —          | —  | —  | —  | P          | 1  | —          | — | P          | 1 |
|                      | —   | —          | —          | —  | —  | —  | Elective 5 |    | —          | — | Elective 8 |   |
| Credits per semester | 21  | 23         | 23         | 25 | 25 | 26 | 26         | 24 |            |   |            |   |
| Total Credits        | 193 |            |            |    |    |    |            |    |            |   |            |   |