# B. Pharm Programme

| Table-I: Course of study for semester I | | | | |
|---|---|---|---|---|
| Course code | Name of the course | No. of hours | Tutorial | Credit points |
| PHS-CC-1101 | Human Anatomy and Physiology I -Theory | 3 | 1 | 4 |
| PHS-CC-1102 | Pharmaceutical Analysis I – Theory | 3 | 1 | 4 |
| PHS-CC-1103 | Pharmaceutics I – Theory | 3 | 1 | 4 |
| PHS-CC-1104 | Pharmaceutical Inorganic Chemistry – Theory | 3 | 1 | 4 |
| PHS-CC-1105 | Communication skills – Theory * | 2 | - | 2 |
| PHS-EC-1106 Remedial Biology<br>OR<br>PHS-EC-1107 Remedial Mathematics – Theory* | | 2<br>2 | -<br>- | 2<br>2 |
| PHS-CC-1108 | Human Anatomy and Physiology I – Practical | 4 | - | 2 |
| PHS-CC-1109 | Pharmaceutical Analysis I – Practical | 4 | - | 2 |
| PHS-CC-1110 | Pharmaceutics I – Practical | 4 | - | 2 |
| PHS-CC-1111 | Pharmaceutical Inorganic Chemistry – Practical | 4 | - | 2 |
| PHS-CC-1112 | Communication skills – Practical* | 2 | - | 1 |
| PHS-EC-1113 | Remedial Biology – Practical* | 2 | - | 1 |
| | **Total** | **34$/36#** | **4** | **29$/30#** |

#Applicable ONLY for the students who have studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology (RB)course.

$Applicable ONLY for the students who have studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics (RM)course.

| Table-II: Course of study for semester II | | | | |
|---|---|---|---|---|
| Course Code | Name of the course | No. of hours | Tutorial | Credit points |
| PHS-CC-2101 | Human Anatomy and Physiology II – Theory | 3 | 1 | 4 |
| PHS-CC-2102 | Pharmaceutical Organic Chemistry I – Theory | 3 | 1 | 4 |
| PHS-CC-2103 | Physical Pharmaceutics-I – Theory | 3 | 1 | 4 |
| PHS-EC-2104 | Computer Applications in Pharmacy – Theory * | 3 | - | 3 |
| PHS-EC-2105 | Environmental sciences – Theory * | 3 | - | 3 |
| PHS-CC-2106 | Human Anatomy and Physiology II –Practical | 4 | - | 2 |
| PHS-CC-2107 | Pharmaceutical Organic Chemistry I– Practical | 4 | - | 2 |
| PHS-CC-2108 | Physical Pharmaceutics-I – Practical | 4 | - | 2 |
| PHS-EC-2109 | Computer Applications in Pharmacy – Practical* | 2 | - | 1 |
| | **Total** | **29** | **3** | **25** |

# M. Pharm. Course:
# FIRST SEMESTER

| S. No. | Name of School | Compulsory Course | Course Code | Name of Course | Per Week Load L | T | P | C |
|---|---|---|---|---|---|---|---|---|
| 1 | School of Engineering and Technology (EAT) | Course I | PHS CC 1201 | Methods in Pharmaceutical Research (MPR) | 4 | - | - | 4 |
| | | Course II | PHS CC 1202 | Product Development | 4 | - | - | 4 |
| | | Course III | PHS CC 1203 | Pharmaceutical Biotechnology | 4 | - | - | 4 |
| | | Course IV | PHS CC 1204 | MPR Practicals (P) | - | - | 8 | 4 |
| | | Course V | PHS CC 1205 | Product Development Practicals (P) | - | - | 8 | 4 |
| | | Course VI | PHS CC 1206 | Pharmaceutical Biotechnology Practicals (P) | - | - | 8 | 4 |
| | | | | Total Credits | 12 | - | 24 | 24 |

# M. Pharm. Course: SECOND SEMESTER: Specialization: Pharmaceutics

| S. No. | Name of School | Compulsory Course | Course Code | Name of Course | Per Week Load L | T | P | C |
|---|---|---|---|---|---|---|---|---|
| 1 | School of Engineering and Technology (EAT) | Course I | PHS P CC 22 01 | Advanced Pharmaceutics | 4 | - | - | 4 |
| | | Course II | PHS P CC 22 02 | Biopharmaceutics and Pharmacokinetics | 4 | - | - | 4 |
| | | Course III | PHS P CC 22 03 | Controlled and Novel Drug Delivery System (NDDS) | 4 | - | - | 4 |
| | | Course IV | PHS P CC 22 04 | Advanced Pharmaceutics | - | - | 16 | 8 |
| | | Course V | PHS P CC 22 05 | DRA; IPR and QA | 4 | | | 4 |
| | | Dissertation Project PHSP CC 22 06 | | Dissertation Project | | | | 4 |
| | | | | Total Credits | 16 | | 16 | 28 |

# M. Pharm. Course: SECOND SEMESTER : Specialization: Pharmaceutical C hemistry

| S. No. | Name of School | Compulsory Course | Course Code | Name of Course | Per Week Load L | T | P | C |
|---|---|---|---|---|---|---|---|---|
| 1 | School of Engineering and Technology (EAT) | Course I | PHS C CC 22 01 | Drug Design and Discovery | 4 | - | - | 4 |
| | | Course II | PHSC CC 22 02 | Advances in Medicinal Chemistry | 4 | - | - | 4 |
| | | Course III | PHSC CC 22 03 | Advanced in Organic Chemistry | 4 | - | - | 4 |
| | | Course IV | PHSC CC 22 04 | Advanced Pharmaceutical Chemistry Practical (P) | - | - | 16 | 8 |
| | | Course V | PHSC CC 22 05 | DRA;IPR and QA | 4 | | | 4 |
| | | Dissertation Project PHSC CC 22 06 | | Dissertation Project | | | | 4 |
| | | | | Total Credits | 16 | | 16 | 28 |

# M. Pharm. Course: SECOND SEMESTER: Specialization: Pharmacognosy

| S. No. | Name of School | Compulsory Course | Course Code | Name of Course | Per Week Load L | T | P | C |
|---|---|---|---|---|---|---|---|---|
| 1 | School of Engineering and Technology (EAT) | Course I | PHSG CC 22 01 | Natural Products | 4 | - | - | 4 |
| | | Course II | PHSG CC 22 02 | Advanced Pharmaeognosy | 4 | - | - | 4 |
| | | Course III | PHSG CC 22 03 | Plant Biotechnology | 4 | - | - | 4 |
| | | Course IV | PHSG CC 22 04 | Advanced Pharmacognosy (P) | - | - | 16 | 8 |
| | | Course V | PHSG CC 22 05 | DRA;IPR and QA | 4 | | | 4 |
| | | Dissertation Project PHS G CC 22 06 | | Dissertation Project | | | | 4 |
| | | | | Total Credits | 16 | | 16 | 28 |

# M. Pharm. Course: SECOND SEMESTER: Specialization: Pharmaceutical Biotechnology

| S. No. | Name of School | Compulsory Course | Course Code | Name of Course | Per Week Load L | T | P | C |
|---|---|---|---|---|---|---|---|---|
| 1 | School of Engineering and Technology (EAT) | Course I | PHSB CC 22 01 | Advanced Biotechnology | 4 | - | - | 4 |
| | | Course II | PHSB CC 22 02 | Molecular Biology And Genetic Engineering | 4 | - | - | 4 |
| | | Course III | PHSB CC 22 03 | Industrial Biotechnology | 4 | - | - | 4 |
| | | Course IV | PHSB CC 22 04 | Pharmaceutical Biotechnology (P) | - | - | 16 | 8 |
| | | Course V | PHSB CC 22 05 | DRA/IPR/QA | 4 | | | 4 |
| | | Dissertation Project PHS B CC 22 06 | | Dissertation Project* | | | | 4 |
| | | | | Total Credits | 16 | | 16 | 28 |

Scheme of Ph.D. Course Work
W.E.F.: Session 2020 - 21

| Course code | Title | Credits |
|---|---|---|
| PHS CC 1401 | Research Methodology (Theory) | 04 |
| PHS CC 1402 | Current Trends in Pharmaceutical Sciences ( Theory) | 03 |
| PHS CC 1403 | Research and Publication Ethics ( Theory) | 01 |
| PHS EC 1404 a | Advances in Pharmaceutics Research (Theory) | 04 * |
| PHS EC 1404 b | Molecular Biology in Targeted Drug delivery (Theory) | |
| PHS EC 1404 c | Advances in Medicinal Chemistry (Theory) | |
| PHS EC 1404 d | Advances in Herbal Drug Technology (Theory) | |
| PHS CC 1405 | Current Trends in Pharmaceutical Sciences (Practical) | 01 |
| PHS CC 1406 | Research and Publication Ethics (Practical ) | 01 |
| PHS CC 1407 | Review of Published Research | 03 |
| PHS CC 1408 | Seminar & Viva - Voce | 01 |
| | Course Credit | 18 |

*Any one of four elective subjects is to be opted.