



**Shri Gajanan Maharaj Shikshan Prasarak Mandal`s**  
**SHARADCHANDRA PAWAR COLLEGE OF PHARMACY**

**DUMBARWADI. (OTUR), TAL: JUNNAR, DIST: PUNE. 412409.**

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| <b>Code: SPCOP/ADM/FM/</b> | <b>DEPARTMENT : PHARMACEUTICS</b>  | <b>Ac. Yr. : 2020-21</b>                      |
| <b>Rev:00</b>              | <b>Syllabus of Practice School</b> | <b>Class: B. Pharm Final Year<br/>Sem-VII</b> |
| <b>Date: 10/08/2021</b>    |                                    | <b>Pages: 01 out of 02</b>                    |

## **MODULE: PHARMACEUTICS (150 Hrs)**

### **SCOPE:**

This Practice School course explore the students to understand the Basic fundamental of Pharmaceutics, Instrument care and Handling, Process modification and Industrial aspects of pharmaceutical tablet manufacturing, Recent advances in Novel drug delivery system.

### **OBJECTIVE:**

1. To enable the student to implement the knowledge acquired in a practical or realistic way.
2. To expose the students for problem solving at right time.
3. To inculcate attitude and discipline in the behaviors of students.
4. To permit the students to apply and refine the communication skill.
5. To increase the students employability.

#### **Module-I: Basic fundamentals of Pharmaceutics (25 Hrs)**

1. Introduction to drug delivery system. (05 Hrs)
2. Introduction to formulation technology. (05 Hrs)
3. Steps in Pharmaceutical Research. (05 Hrs)
4. Introduction to in-vitro cell culture technique and Identification process for bacteria. (05 Hrs)
5. Evaluation parameters of all dosage forms. (05 Hrs)

#### **Module-II: Instrument care and Handling (50 Hrs)**

1. Designing of Standard Operating System (04 Hrs)
2. Maintenance of Log Book (04 Hrs)
3. Tablet Compression Machine (05 Hrs)
4. Dissolution (05 Hrs)
5. Disintegration (04 Hrs)
6. Mechanical Shaker (04 Hrs)
7. Laminar airflow (04 Hrs)
8. Incubator (04 Hrs)
9. Colony counter (04 Hrs)



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10. Tray Dryer (04 Hrs)
11. Rota Evaporator (04 Hrs)
12. Ampoule filling and sealing (04 Hrs)

**Module- III: Process Modification & Industrial aspects of Pharmaceutical Tablet manufacturing. (25 Hrs)**

1. Literature Review (02 Hrs)
2. Requirement of Chemical and Glassware (02 Hrs)
3. Selection of drug and polymer (02 Hrs)
4. Documentation Record- Plan of work (02 Hrs)
5. Preformulation (03 Hrs)
6. Trial and Error Batch, Optimization Batch (03 Hrs)
7. Calibration & Validation (02 Hrs)
8. Scale of Validation (02 Hrs)
9. Evaluation of Prepared sample (04 Hrs)
10. Concept of Technology Transfer. (02 Hrs)
11. Regulatory requirement. (01 Hrs)

**Module-IV: Recent advances in Novel Drug Delivery system (50 Hrs)**

1. Nanoparticle (07 Hrs)
2. Nanosuspension (06 Hrs)
3. Liposome (06 Hrs)
4. Nanocapsule (07 Hrs)
5. Self Nano Emulsifying Drug delivery system (06 Hrs)
6. Fast Disintegrating Tablet (06 Hrs)
7. Taste masking Technology (06 Hrs)
8. Oral Film/Tablet Coating (06 Hrs)

**HOD**  
**(Department of Pharmaceutics)**

**PRINCIPAL**