

<b>INSTITUTE</b>	<b>FACULTY OF PHARMACY</b>
<b>PROGRAM</b>	<b>BACHELOR OF PHARMACY</b>
<b>SEMESTER</b>	<b>8</b>
<b>COURSE TITLE</b>	<b>PROJECT WORK</b>
<b>COURSE CODE</b>	<b>13PH0813</b>
<b>COURSE CREDITS</b>	<b>6</b>

**Objective:**

- 1 To understand the regulations related to preformulation, formulation development, stability assessment, manufacturing and quality control testing of different types of dosage forms. The subject also includes an advanced study of pharmaceutical excipients in pharmaceutical product development. It also covers optimization techniques to be used in pharmaceutical product development.

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**Course Outcomes:** After completion of this course, student will be able to:

- 1 Provide an opportunity to explore the area of interest, Develop the technical skills required for research work, Develop skills required for literature review, finding research gaps, and writing a scientific report of minor research project

**Pre-requisite of course:** All the students shall undertake a project under the supervision of a teacher and submit a report. The area of the project shall directly relate any one of the elective subjects opted by the student in semester VIII or Minor research project at R & D organization/ CRO/ Manufacturing organization/ QA & QC Laboratory/ Public testing laboratory/ Drug regulatory body/ Hospital/ Community Pharmacy/ Help Centre or Institute. The project shall be carried out in a group not exceeding 5 in number. The project report shall be submitted in triplicate (typed & bound copy not less than 25 pages). The students can perform the activities for project work after completion of Semester VI onwards (during the vacation/ official Holidays) but the credit of project work will be transferred in Semester VIII. Those who are doing project work during this period must complete the prescribed days or hours for project work as per the guidelines. Institute should maintain documentation regarding project work for each student with requisite evidence.

**Teaching and Examination Scheme**

<b>Theory Hours</b>	<b>Tutorial Hours</b>	<b>Practical Hours</b>	<b>ESE</b>	<b>IA</b>	<b>CSE</b>	<b>Viva</b>	<b>Term Work</b>
0	0	12	0	0	0	100	50
<b>Contents : Unit</b>	<b>Topics</b>						<b>Contact Hours</b>
<b>Total Hours</b>							

**Suggested List of Experiments:**

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
<b>Total Hours</b>		

### **Suggested Theory Distribution:**

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
<b>Remember / Knowledge</b>	<b>Understand</b>	<b>Apply</b>	<b>Analyze</b>	<b>Evaluate</b>	<b>Higher order Thinking / Creative</b>
20.00	25.00	25.00	10.00	10.00	10.00

### **Instructional Method:**

- 1 All the students shall undertake a project under the supervision of a teacher and submit a report. The area of the project shall directly relate any one of the elective subjects opted by the student in semester VIII or Minor research project at R & D organization/ CRO/ Manufacturing organization/ QA & QC Laboratory/ Public testing laboratory/ Drug regulatory body/ Hospital/ Community Pharmacy/ Help Centre or Institute. The project shall be carried out in a group not exceeding 5 in number. The project report shall be submitted in triplicate (typed & bound copy not less than 25 pages). The students can perform the activities for project work after completion of Semester VI onwards (during the vacation/ official Holidays) but the credit of project work will be transferred in Semester VIII. Those who are doing project work during this period must complete the prescribed days or hours for project work as per the guidelines. Institute should maintain documentation regarding project work for each student with requisite evidence.