



**Dr. Rafiq Zakaria Campus**

Maulana Azad Educational Trust's

**Y. B. CHAVAN COLLEGE OF PHARMACY**

(B. Pharm, M. Pharm & Research Centre)

ISO 21001:2018 & ISO 14001:2015 CERTIFIED | NIRF-2022 ALL INDIA RANK 65<sup>TH</sup>

**NAAC ACCREDITATION "A" GRADE WITH 3.23 CGPA SCORE**

# COURSE MODULE

<b>Program Title</b>	M. Pharmacy
<b>Department</b>	Pharmaceutics
<b>Course Title</b>	COSMETICS AND COSMECEUTICALS

- 1. NAME OF INSTITUTION** : Y. B. CHAVAN COLLEGE OF PHARMACY,  
AURANGABAD
- 2. AFFILIATED UNIVERSITY** : DR. BABASAHEB AMBEDKAR  
MARATHWADA UNIVERSITY, AURANGABAD
- 3. DEPARTMENT** : Pharmaceutics
- 4. PROGRAM TITLE** : M. PHARM.

#### 4.1. Program Specific Outcome:

**PSO-1:** Independently carry out research and development work by utilizing modern tools like Artificial Intelligence (AI), Computer based Informatics and Simulations Models.

**PSO-2:** Highlight advancement in knowledge associated with novel as well as conventional drug delivery systems

**PSO-3:** Build professional, Statistical, computational, analytical, critical thinking and Problem-solving skills.

**PSO-4:** Apply Good manufacturing Practices and Regulations to Drugs and Cosmetics.

**PSO-5:** Explain and apply the concepts of Biopharmaceutical, Molecular and Biological aspects in formulation development and drug targeting

#### 5.1. Course Identification and General Information

#### 5.2. Course Description:

a. Course Title:	<b>M.Pharmacy Pharmaceutics</b>	
b. Course Number/Code	MPH 204T	
c. Credit Hours	Theory	Practical
	4	-
d. Study level/semester at which this course is offered	Semester II	
e. Pre-requisite	Knowledge of Formulations, Physical Pharmacy, Anatomy of skin and hairs	
f. Co-requisite	Preform-ulation and developmental aspects of dosage forms.	
g. Program in which the course is offered	M. Pharm	
h. Language of teaching the course	English	
i. Prepared by	Dr. S.R. Lahoti	
j. Approved by HOD	Dr. S.R. Lahoti	

#### 5.3.

This course is designed to impart knowledge and skills necessary for the fundamental need for cosmetic and cosmeceutical products.

#### 5.4.Course Objectives:

Upon completion of the course, the students shall be able to understand

1. Key ingredients used in cosmetics and cosmeceuticals.
2. Key building blocks for various formulations.
3. Current technologies in the market
4. Various key ingredients and basic science to develop cosmetics and cosmeceuticals
5. Scientific knowledge to develop cosmetics and cosmeceuticals with desired Safety, stability, and efficacy.

**Course Outcomes (COs) : (Min. 4 and Max. 6)**

**(Use Bloom's Taxonomy words)**

CO Code	Course outcome
CO 202.01	Apply the knowledge for pre-formulation studies to cosmetic formulations.
CO 202.02	Understanding of various regulatory aspects of cosmetics manufacturing, Export and Import and sales.
CO 202.03	Ability of designing and formulations of cosmetics
CO 202.04	To understand various concepts and principal in Design of cosmeceuticals
CO 202.05	Knowledge of various herbal cosmetics

#### 6.1. Knowledge and Understanding

**(Alignment of PSOs to COs)**

Course Code	Program Specific Outcome				
	PSO-1	PSO-2	PSO-3	PSO-4	PSO-5
CO 202.01	H	H	M	M	M
CO 202.02	M	H	M	H	M
CO 202.03	H	H	M	M	S
CO 202.04	H	H	H	H	S
CO 202.05	M	M	M	M	S

Correlation levels 1, 2 or 3 as defined below:

2: Moderate (Medium); 3: Substantial

1: Slight (Low); (High); If there is no correlation, put '-'

## 6.2. Teaching and Assessment Methods for achieving learning outcome:

Teaching Strategies(methods)/Tools used	Methods of Assessment
<b>Lectures (Constructivist learning)</b> <b>Collaborative learning (Discussion)</b> <b>Project based Learning</b> <b>Blended learning</b> <b>Inquiry based learning</b> <b>Flash cards</b> <b>Video</b> <b>Equipment models</b>	<b>Formative Assessment</b> <b>Case study</b> <b>Class test</b> <b>Multiple choice questions</b> <b>Assignments</b> <b>Seminar</b> <b>Viva Voce</b> <b>Synopsis</b> <b>Tutorials</b> <b>Summative Assessment</b>

## 6.3. Tools for the Teaching and learning

Theory subjects	Practical Subjects
<ul style="list-style-type: none"> <li>• PowerPoints presentation</li> <li>• Videos</li> <li>• Flash Card</li> <li>• Models</li> <li>• Software</li> <li>• Charts</li> <li>• Smart Boards</li> <li>• White boards</li> <li>• Online Platform</li> </ul>	<ul style="list-style-type: none"> <li>• White boards</li> <li>• Glassware</li> <li>• Chemicals</li> <li>• Instruments</li> <li>• Equipment</li> <li>• Software</li> <li>• Models</li> <li>• Plants/Crude Drugs</li> <li>• Animal</li> </ul>

## 6.4. COURSE CONTENT

### 6.1. Theoretical Aspect:

Order	Topic list/units	Subtopics list	Number of Weeks	Contact Hours
1	Unit I	Cosmetics – Regulatory : Definition of cosmetic products as per Indian regulation. Indian regulatory requirements for labeling of cosmetics Regulatory provisions relating to import of	3 Weeks	20

		cosmetics., Misbranded and spurious cosmetics. Regulatory provisions relating to manufacture of cosmetics – Conditions for obtaining license, prohibition of manufacture and sale of certain cosmetics, loan license, offences and penalties.		
2	<b>Unit II</b>	Cosmetics - Biological aspects : Structure of skin relating to problems like dry skin, acne, pigmentation, prickly heat, wrinkles and body odor. Structure of hair and hair growth cycle. Common problems associated with oral cavity. Cleansing and care needs for face, eye lids, lips, hands, feet, nail, scalp, neck, body and under-arm..	<b>3 Weeks</b>	<b>10</b>
3	<b>Unit III</b>	Formulation Building blocks: Building blocks for different product formulations of cosmetics/cosmeceuticals. Surfactants – Classification and application. Emollients, rheological additives: classification and application. Antimicrobial used as preservatives, their merits and demerits. Factors affecting microbial preservative efficacy. Building blocks for formulation of a moisturizing cream, vanishing cream, cold cream, shampoo and toothpaste. Soaps and syndetbars. Perfumes; Classification of perfumes. Perfume ingredients listed as allergens in EU regulation. Controversial ingredients: Parabens, formaldehyde liberators, dioxane.	<b>3 Weeks</b>	<b>10</b>
4	<b>Unit IV</b>	Design of cosmeceutical products: Sun protection, sunscreens classification and regulatory aspects. Addressing dry skin, acne, sun-protection, pigmentation, prickly heat, wrinkles, body odor., dandruff, dental cavities, bleeding gums, mouth odor and sensitive teeth through cosmeceutical formulations.	<b>3 Weeks</b>	<b>10</b>
5	<b>Unit V</b>	Herbal Cosmetics : Herbal ingredients used in Hair care, skin care and oral care. Review of guidelines for herbal cosmetics by private bodies like cosmos with respect to preservatives, emollients, foaming agents, emulsifiers and rheology modifiers. Challenges in formulating herbal cosmetics.	<b>3 Weeks</b>	<b>10</b>
	<b>TOTAL</b>		<b>15 Weeks</b>	<b>60</b>

#### 7.0. ASSESSMENT MECHANISM:

Sr. No.	Assessment Mechanism	Week due	Marks	Proportion of Final Assessment
1	Continuous Assessment (Theory)	2 <sup>nd</sup> week of every month	10	4%
2	Sessional (Internal Theory exam)	As per schedule of examination	15	6%

3	Continuous Practical Assessment (Sessional Practical exam)	Weekly during practical	20	8%
4	Sessional (Internal Practical exam)	As per schedule of examination	30	12%
5	Final exam (theory)	As per	75	30%
6	Final exam(practical)	University at end of course	100	40%
Total			150	<b>100%</b>

### 8.0.STUDENT SUPPORT:

Office hours/week	Other procedures
<b>Two hours minimum</b>	<b>Sharing of Study materials/ Question Bank</b>

### 9.0.TEACHER'S AVAILABILITY FOR STUDENT SUPPORT:

Days	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Time	<b>1 -2 pm</b>	<b>1 -2 pm</b>	<b>1 -2 pm</b>	<b>1 -2 pm</b>	<b>1 -2 pm</b>	<b>1 -2 pm</b>

### 10.0. LEARNING RESOURCES:

Sr.No.	Title of Learning Material	Details
1	Text books	
2	Reference material	11. Harry's Cosmeticology. 8th edition. 2. Poucher'sperfumecosmeticsandSoaps,10th edition. 3. Cosmetics - Formulation, Manufacture and quality control, PP.Sharma,4 <sup>th</sup> edition 4. Handbook of cosmetic science and Technology A.O.Barel, M.Paye and H.I. Maibach. 3 rd edition 5. Cosmetic and Toiletries recent suppliers catalogue. 6. CTFA directory.
3	E-materials and websites	1) <a href="https://www.fda.gov/">https://www.fda.gov/</a> 2) All websites of various drug regulatory bodies
4	Other learning material	ICH and CGMP guidelines, Drugs and Cosmetics Rules, 1945

### 11.0. FACILITIES REQUIRED:

Sr.No.	Particular of Facility Required
1	Lecture Rooms (capacity for 60 students)
2	Laboratory (capacity for 20 students)
3	Computing resources: PC with latest version and hardware/software and utilization of open source and licensed application software
4	Other resources: Appropriate laboratory tools, Chemicals, Glass ware, Apparatus, Instrumentation

### 12.0. COURSE IMPROVEMENT PROCESSES:

#### 12.1. Strategies for obtaining student feedback on effectiveness of teaching:

Course delivery evaluation by students using: Questionnaire forms and online questionnaires

#### 12.2. Other strategies for evaluation of teaching by the instructor or by the department:

Periodic review by Academic Planning & Monitoring Committee and departmental review committee, Observations and assistance of colleagues, External assessments by advisors/ examiners and auditors.

#### 12.3. Process for improvement of teaching:

Use of ICT tools, teaching aids, Simultaneous practical orientation and theory classes (SPOT), Adoption of reflective teaching.

#### 12.4. Describe the planning procedures for periodically reviewing of course effectiveness and planning for improvement:

Periodic review by departmental meeting , Review of course delivery and outcome through assessment and feedback from all stake holders.

#### 12.5. Course development plans:

Provide inputs for course improvement and update to University Course development Committees (Board of Studies)

### 13.0. INFORMATION ABOUT FACULTY MEMBER RESPONSIBLE FOR THE COURSE:

<b>Name</b>	Dr. S.R. Lahoti
<b>Location</b>	Industry Institute Interaction cell
<b>Contact Detail (e-mail &amp; cell no.)</b>	9823371119 , pharmalahoti@gmail.com
<b>Office Hours</b>	10:00 AM to 5:00 PM