



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## Program outcomes (POs)

POs range from "Pharmacy Knowledge" (PO1) to "Life-long learning" (PO11).



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### PROGRAM OUTCOMES (POs)

- 1) **Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
- 2) **Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- 3) **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
- 4) **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
- 5) **Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
- 6) **Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
- 7) **Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behaviour that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making





Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



decisions and take responsibility for the outcomes associated with the decisions.

- 8) **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
- 9) **The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
- 10) **Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 11) **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self- assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an on-going basis.



*A. G. Wadkar*  
Principa,  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## COURSE OUTCOMES

### Course Outcomes of B. Pharmacy:

#### First Year B. Pharmacy (SEM-I)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



#### COURSE OUTCOMES OF B. PHARMACY

##### First Year B. Pharmacy (SEM-I)

Course Name/Code	Human Anatomy And Physiology –I BP101.T. (Theory )	Year of Study	2022-2023
BP101.1	Explain the gross morphology, structure and functions of various organs of the human body.		
BP101.2	Describe the various homeostatic mechanisms and their imbalances.		
BP101.3	To identify the different types of bones in human body.		
BP101.4	Identify the various tissues and organs of different systems of human body.		
BP101.5	To understand the structure and function of cardiovascular system.		

Course Name/Code	Human Anatomy And Physiology –I BP107.P. (Practical )	Year of Study	2022-2023
BP107.1	To operate compound microscope.		
BP107.2	Identify label various tissue, Organs & bones.		
BP107.3	Appreciate coordinated working pattern of different organs of each system		



*P. B. K. 2022*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



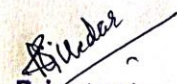
### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-I)

Course Name/Code	BP 102 Pharmaceutical Analysis I- Theory	Year of Study	2022-2023
BP 102.1	Students should acquire a basic understanding of chemical techniques used in pharmaceutical analysis.		
BP 102.2	For chemical analysis, it will be possible to choose and optimize analytical methods (sample size, indicator, titrant, etc.).		
BP 102.3	The evaluation of a drug's purity and impurity will highlight its importance in light of connected ethical and social issues as well as formal pharmaceutical criteria.		
BP 102.4	Students should understand the fundamentals and concepts of electrochemical and volumetric analysis.		
BP 102.5	Students who acquire foundational knowledge and develop their analytical abilities will be capable of evaluating the efficacy, safety, and quality of pharmaceuticals.		

Course Name/Code	BP 108 Pharmaceutical Analysis I- Practical	Year of Study	2022-2023
BP 108.1	Students who are proficient in pharmaceutical chemical analysis write reports and explain the importance of purity and impurity assessments for the well-being of society.		
BP 108.2	Creating and organizing pharmaceutical chemical analysis experiments while taking harmful and dangerous substances and reagents into account.		
BP 108.3	Students with competence to generate standardized chemical solutions; defend its significance and regulatory importance in pharmaceutical companies.		



  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### First Year B. Pharmacy (SEM-I)

Course Name/Code	BP 103 Pharmaceutics- Theory	Year of Study	2022-2023
BP 103.1	Gain in knowledge about historical background, pharmacopeias and development of pharmacy profession and their various application.		
BP 103.2	To know different types of dosage form and choice of excipients in each dosage formulation.		
BP 103.3	Analysis and interpretation of data for calculating dosage form based of child's age and weight.		
BP 103.4	To know different incompatibilities in dosage form and how to overcome it.		
BP 103.5	Gain in knowledge about development of non-sterile dosage form.		

Course Name/Code	BP 109 Pharmaceutics- Practical	Year of Study	2022-2023
BP 109.1	Formulation of different dosage.		
BP 109.2	Knowledge of different excipients and their roles in formulation.		
BP 109.3	Gain in knowledge about storage and directions of different formulations.		



*R. W. W. W.*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-I)

Course Name/Code	BP 104 Pharmaceutical Inorganic Chemistry- Theory	Year of Study	2022-2023
BP 104.1	Student will get acquainted with history of History of Pharmacopoeia, its contents and use in determination of limit of various types of inorganic impurities.		
BP 104.2	Students will get knowledge about the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals		
BP 104.3	Student will get acquainted with the medicinal and pharmaceutical importance of inorganic compounds and buffers. Use of inorganic compounds as Radiopharmaceuticals.		
BP 104.4	Students will get knowledge about various types of inorganic ionic constituents and their importance in maintenance of body physiology.		
BP 104.5	Student will be able develop skill in application of theoretical knowledge in identifying adulteration, impurities and safer use of inorganic compounds as pharmaceutical agents.		

Course Name/Code	BP 111 Pharmaceutical Inorganic Chemistry- Practical	Year of Study	2022-2023
BP 110.1	Students will develop practical hand in identification of inorganic compounds along with impurities and their qualitative and quantitative analysis.		
BP 110.2	Students will be able apply theoretical knowledge regarding physical and chemical properties of inorganic compounds in synthesis of inorganic compounds on commercial level.		
BP 110.3	Students will develop ability of critical thinking and overcoming the problems associated application of specific analytical technique for standardization as well as determination of purity and quality of inorganic compounds.		



*[Signature]*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-I)

Course Name/Code	BP 105 Communication skill- Theory	Year of Study	2022-2023
BP 105.1	Students should acquire and enhance proficient writing and listening abilities.		
BP 105.2	Students should develop leadership and management skills.		
BP 105.3	Students should recognize behavioral demands and use communication techniques in the professional life.		
BP 105.4	Students should develop interview skills.		
BP 105.5	Students should recognize the significance of communication, put an end to obstacles to it, and broaden your perspective on it.		

Course Name/Code	BP 111 Communication skill- Practical	Year of Study	2022-2023
BP 111.1	Students should develop presentation and writing skills.		
BP 111.2	Students should acquire knowledge of verbal and non-verbal communication.		
BP 111.3	Students should gain a foundational understanding of spoken communication for both formal and informal interactions.		



*[Signature]*  
Principal  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-I)

Course Name/Code	BP 106RB Remedial Biology- Theory	Year of Study	2022-2023
BP 106.1	Students should understand the basic Nature of Plant cell and Animal cell.		
BP 106.2	Students should know the system of classification of both plants and animals.		
BP 106.3	Explain anatomy and physiology of plants.		
BP 106.4	Explain anatomy and physiology of animals.		
BP 106.5	Recognize the nutritive characteristics of plants.		

Course Name/Code	BP 112 Remedial Biology- Practical	Year of Study	2022-2023
BP 112.1	Students should learn microscope handling and to perform experiments of biology.		
BP 112.2	Students should acquire the ability to recognize and differentiate between different plant tissues and the features of individual plant parts.		
BP 112.3	Students should identify various bones and tissues.		



*[Signature]*  
**Principal**  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)




### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-I)

Course Name/Code	BP 106RM Remedial Maths-Theory	Year of Study	2022-2023
BP 106.1	Students should solve the different types of problems by application of theory.		
BP 106.2	Students should apply foundational maths skills in the pharmacy.		
BP 106.3	Recognize the significance of using mathematics in pharmacy.		
BP 106.4	In pharmacokinetics and biopharmaceutics, apply the mathematical concepts of algebra, calculus, exponentials, logarithms, and unit analysis.		
BP 106.5	Remedial courses may be crucial in enhancing the educational possibilities of students who are more likely to be from affluent backgrounds and ethnic minority groups.		



  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## First Year B. Pharmacy (SEM-II)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-II)

Course Name/Code	Human Anatomy And Physiology –II BP201.T. (Theory)	Year of Study	2022-2023
BP201.1	Understand the structure and function of the human respiratory, digestive, urinary, nervous, endocrine, and reproductive systems.		
BP201.2	To comprehend the interdependence and regulation of these systems in maintaining homeostasis in the body.		
BP201.3	explain the functions and interrelationships of different anatomical systems and organs.		
BP201.4	develop original research questions and hypotheses related to human anatomy and physiology		
BP201.5	To develop critical thinking and problem-solving skills through case studies, group discussions, and practical demonstrations.		

Course Name/Code	Human Anatomy And Physiology –II BP207.P. (Practical)	Year of Study	2022-2023
BP207.1	Record blood pressure, heart rate, pulse and respiratory volume		
BP207.2	Appreciate coordinated working pattern of different organs of each system		
BP207.3	Appreciate the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.		



*A. G. G. G.*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-II)

Course Name/Code	BP 202T Pharmaceutical Organic Chemistry I- Theory	Year of Study	2022-2023
BP 202.1	Once the curriculum is finished, students will be able to identify and categorize organic molecules.		
BP 202.2	Students shall be able to define, recognize, and categorize isomers as well as apply them as needed.		
BP 203.3	Students shall be able to understand the fundamental properties, chemistry, and structural elements of the classes of substances included in the course as they pertain to hybridization.		
BP 204.4	The nature of substituents and their function in a reaction, as well as the acidity and basicity of compounds and their influence on reaction, should be understood by students.		
BP 205.5	Students shall be able to understand the development of a fundamental knowledge of the mechanisms underlying reactions and how they work.		

Course Name/Code	BP 208P Pharmaceutical Organic Chemistry I- Practical	Year of Study	2022-2023
BP 208.1	Unknown organic compounds should be able to be recognized, distinguished, and verified by students as separate entities or mixtures.		
BP 208.2	Students shall be able to apply the fundamental mechanics or patterns of a reaction in their day-to-day activities.		
BP 208.3	The fundamental abilities needed for synthetic aspects should be developed and acquired by students.		



*A. S. Kulkarni*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-II)

Course Name/Code	BP 203T Biochemistry- Theory	Year of Study	2022-2023
BP 203.1	Students will be able to comprehend and retain the key characteristics of biomolecules, along with their significance and uses, once they have finished the course material.		
BP 203.2	They must be able to explain the nature of enzymes, their biological significance, and the various forms of enzyme reactions.		
BP 203.3	Students ought to comprehend the by-products, functions, and biochemical, synthetic, and metabolic processes.		
BP 203.4	The genetic makeup of the human body, the significance of DNA and RNA, and their interactions should all be understood by students.		
BP 203.5	Students should be able to recognize the illnesses using a mechanistic method that takes into account biological processes.		

Course Name/Code	BP 209P Biochemistry- Practical	Year of Study	2022-2023
BP 209.1	Students will be proficient in both current instrumentation and traditional clinical laboratory techniques.		
BP 209.2	The capacity to design and carry out experimental strategies for biochemical analysis will be possessed by the students.		
BP 209.3	Skills of qualitative and quantitative analysis that can have applications in forensic and nutritional sciences.		



*[Signature]*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur




Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)

Course Name/Code	BP 204 Pathophysiology- Theory	Year of Study	2022-2023
BP 204.1	Describe the etiology and pathogenesis of the prescribed diseases.		
BP 204.2	List signs and symptoms of prescribed diseases.		
BP 204.3	State complications of the prescribed diseases.		
BP 204.4	Know most commonly involved basic mechanisms in disease generation and progression.		
BP 204.5	Explore advanced diagnostic techniques in pathology.		

  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-II)

Course Name/Code	BP 205 Computer Applications in Pharmacy - Theory	Year of Study	2022-2023
BP 205.1	Understand the basic fundamentals of computer.		
BP 205.2	To know the fundamental uses of computers in pharmacy.		
BP 205.3	Learn about several drug databases and online technologies.		
BP 205.4	Learn the fundamentals of information systems, software, and number systems and become familiar with how they are used in the pharmaceutical industries.		
BP 205.5	Learn about bioinformatics for use in molecular biology and target identification for the development of new drugs and vaccines.		

Course Name/Code	BP 210 Computer Applications in Pharmacy - Practical	Year of Study	2022-2023
BP 210.1	Understand and use the fundamentals of Microsoft Word, MS Excel, and MS Power Point.		
BP 210.2	Use word processing software, make an HTML webpage.		
BP 210.3	Learn how to export forms, reports, tables, and queries to XML and web pages.		



*Principals*  
**Principals**  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)

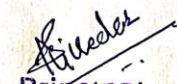


### COURSE OUTCOMES OF B. PHARMACY

#### First Year B. Pharmacy (SEM-II)

Course Name/Code	BP 206 Environmental Sciences- Theory	Year of Study	2022-2023
BP 206.1	Recognize the issues surrounding natural resources.		
BP 206.2	Implement conservation strategies for natural resources into action.		
BP 206.3	Learn the idea of an ecosystem.		
BP 206.4	Understand the distinct qualities, composition, and roles of an ecosystem.		
BP 206.5	Recognize the sources of environmental pollution and put mitigation measures in place.		



  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## Second Year B. Pharmacy (SEM-III)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### Pharmaceutical Organic Chemistry II (SEM III) – Second Year B. Pharmacy

#### Course Outcomes (COS) POC – II Theory (BP301T)

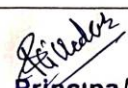
Course Name	Pharmaceutical Organic Chemistry II	Year of Study 2022-2023
BP 301.1	Interpret structure, name and type of isomerism of organic compound.	
BP 301.2	Relate chemical reactions and orientation of organic compound.	
BP 301.3	Identify the reactivity and stability of organic compound.	
BP 301.4	Describe the method of preparation and uses of organic compound.	
BP 301.5	Recognize physicochemical properties, reactions and Principle and significance of fats and oil.	

### Pharmaceutical Organic Chemistry II (Sem III) – Second Year B. Pharmacy

#### Course outcomes (Cos) POC – II Practical (BP305P)

Course Name	Pharmaceutical Organic Chemistry II	Year of Study 2022-2023
BP 305.1	Students will get hand on experience in applying various laboratory techniques for purification and separation of synthesized compound.	
BP 305.2	Students will get idea about using simple analytical methods for qualitative estimation of organic compounds.	
BP 305.3	Students will gets acquainted with application of various classes of chemical and name reactions in synthesis of different type of organic compound.	



  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES of B. PHARMACY

#### BP302T Physical Pharmaceutics I (Sem III)- Second Year B. Pharm

Course Name/Code	BP 302T Physical Pharmaceutics I	Year of Study	2022-2023
BP 302.1	Students will able to discuss, clarify and elaborate physicochemical principles of matters, solubility of drugs, buffers and isotonic solutions, interfacial phenomenon, adsorption, complexation and protein binding.		
BP 302.2	Recall and define the three classical states of matter: solid, liquid and gas. Explain the importance of physicochemical properties in drug molecules and formulation.		
BP 302.3	Recall and define terms related to surface tension, interfacial tension, and contact angle. Explain surface and interfacial phenomenon and its role in formulation development.		
BP 302.4	Clarify the principles of complexation and protein binding in formulation. Develop novel approaches to enhance the efficiency of complexation in specific applications. Explain the mechanisms of protein binding and the factors influencing binding affinity.		
BP 302.5	Clarify the principles of pH, buffers and isotonic solutions in formulation. Develop strategies to overcome challenges related to pH control, isotonicity in pharmaceutical product development.		

#### **Course Outcome (COs) Physical Pharmaceutics-I**

##### **Practical (BP306P)**

Course Name/Code	BP 306P Physical Pharmaceutics I- Practical	Year of Study	2022-2023
BP 306.1	Determine physicochemical properties and pharmaceutical systems including solubility, pKa, Partition coefficient, CST, surface tension, HLB, CMC, stability constant of complex, specific surface area etc. and demonstrate their use in formulation development.		
BP 306.2	Determine stability constant and donor acceptor ratio complexes.		
BP 306.3	Develop skills in procedures and instrumental methods applied in practical tasks of Physical Pharmaceutics.		



*S. V. Chaturvedi*  
Principa.  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Course Name/Code	BP 303T Pharmaceutical Microbiology- Theory	Year of Study	2022-2023
BP 303.1	Students will acquire an understanding of identification, cultivation and preservation of microbes, infectious diseases, diagnosis, and treatment thereof.		
BP 303.2	Techniques of isolation, identification, and culturing of microorganisms from natural resources, sterility testing cell culture techniques and standardization of pharmaceuticals will be developed.		
BP 303.3	Strategies for investigating microbial pathogens, potential microorganisms for pharmaceutical use and cell culture techniques and its application would be planned.		
BP 303.4	Production of immunologicals against pathogens, implementation of sterilization protocols and standardization of pharmaceuticals at laboratory scale as per regulation guidelines can be explored.		
BP 303.5	Microbes, potential healthcare products and applications towards animal and human health will be revealed.		

Course Name/Code	BP 307P Pharmaceutical Microbiology- Practical	Year of Study	2022-2023
BP 307.1	Students will acquire an understanding of isolation, identification, control techniques and standardization of pharmaceuticals.		
BP 307.2	Students should plan strategies to carry out antibacterial and antifungal activities, microbial assays, and sterility testing at industrial level.		
BP 307.3	Quality control of antibiotics as per set protocols will allow students to perform independently as well as in team.		



*Falkekar*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### Second Year B. Pharmacy (SEM-III)

Course Name/Code	BP 304 Pharmaceutical Engineering-Theory	Year of Study	2022-2023
BP 304.1	To know various unit operations used in pharmaceutical industries and material handling technique		
BP 304.2	To perform various processes involved in pharmaceutical manufacturing process.		
BP 304.3	To carry out various test to prevent environmental pollution .		
BP 304.4	To appreciate and comprehend significance of plant lay out design for optimum use of resources.		
BP 304.5	To appreciate the various preventive methods used for corrosion control in pharmaceutical industries		

Course Name/Code	BP 308 Pharmaceutical Engineering -Practical	Year of Study	2022-2023
BP.308.1	To understand the basic principals involved in unit operation such as size reduction, size separation, distillation and drying.		
BP .308.2	To demonstrate and explain about the construction, working and application of pharmaceutical equipments such as colloid mill, planetary mixer, fluidized bed dryer and freeze dryer.		
BP .308.3	To determine overall heat transfer coefficient by heat exchanger and calculate the efficiency of steam distillation		



*[Signature]*  
**Principa**  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## Second Year B. Pharmacy (SEM-IV)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
KalambeTarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)




### Pharmaceutical Organic Chemistry III (SEM IV) – Second Year B. Pharmacy

#### Course Outcomes (COS) POC – III Theory (BP401T)

Course Name	Pharmaceutical Organic Chemistry III	Year of Study 2022-2023
BP 401.1	Summarize the nomenclature and methods of determination of stereoisomeric compound.	
BP 401.2	Relate chemical reactions of Stereoisomeric compound.	
BP 401.3	Interpret the synthesis of heterocyclic compound.	
BP 401.4	Describe the chemical reactions and medicinal uses of heterocyclic compound.	
BP 401.5	Identify statement, mechanism and applications of some named reactions.	



  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Second Year B. Pharmacy (SEM-IV)

Course Name/Code	BP 402 Medicinal Chemistry I- Theory	Year of Study	2022-2023
BP 402.1	Students will understand the chemistry of drugs with respect to their pharmacological activity.		
BP 402.2	Students will Summarize the cholinergic neurotransmitter, parasympathomimetic agents and cholinergic blocking agents		
BP 402.3	Detail study of drugs acting on CNS including sedatives and hypnotics, antipsychotics and anticonvulsant.		
BP 402.4	Students will understand the drug metabolic pathways, adverse effect and therapeutic value of drugs.		
BP 402.5	Students will develop ability to apply knowledge of organic and medicinal chemistry to understanding physicochemical properties of drugs and its significance in ADME properties.		

Course Name/Code	BP 406 Medicinal Chemistry I- Practical	Year of Study	2022-2023
BP 406.1	Students will understand the basic concept and practical skill in synthetic chemistry.		
BP 406.2	Students will plan and synthesize different drugs or intermediates.		
BP 406.3	Students will check the purity of tablet formulations by using different assays for drugs.		



  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### Second Year B. Pharmacy (SEM-IV)

Course Name/Code	BP 403 Physical Pharmacy II Theory	Year of Study	2022-2023
BP 403.1	Acquire Working Knowledge and comprehend the concept of dispersion system and its application		
BP 403.2	Learn the formulation concepts of pharmaceutical suspension and emulsions and their stability problem		
BP 403.3	Understand the flow behavior of fluids and also to identify suitable characteristics for each formulation		
BP 403.4	Know the principals of chemical kinetics and to use them for stability testing and determination of expiry date of formulation		
BP 403.5	Describe the powders derived properties, flow characteristic and function in formulation development		

Course Name/Code	BP 407 Physical Pharmacy II- Practical	Year of Study	2022-2023
BP407.1	Demonstrate use of physicochemical properties in evaluation of dosage form.		
BP 407.2	Know the principles of chemical kinetics and to use them in assigning expiry date for formulation		
BP 407.3	Understand and appreciate physicochemical properties of drug molecules in formulation research development		



*H. Ueda*  
**Principa,**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Second Year B. Pharmacy (SEM-IV)

Course Name/Code	Pharmacology I BP404.T. (Theory)	Year of Study	2022-2023
BP404.1	Analyzing the advantages and disadvantages of drug utilization for diverse cardiac complications.		
BP404.2	Illustrating the mechanisms of drugs affecting the hematopoietic system, including shock diuretics and anti-diuretics.		
BP404.3	Identifying and outlining the functions of autocooids and associated medications		
BP404.4	Analyzing and summarizing the effects of drugs on the endocrine system.		
BP404.5	Evaluating the physiological functions of sex hormones and assessing the impacts of oral contraceptives and drugs influencing uterine activity		

Course Name/Code	Pharmacology I BP408 P. (Practical)	Year of Study	2022-2023
BP408.1	Identify, list and describe experimental animals, recording devices and CPCSEA guidelines for animal house facility		
BP408.2	Demonstrate basic techniques and procedures in experimental pharmacology		
BP408.3	Determine the absorption and excretion of drugs		
BP408.4	Demonstrate effects of various drugs on animals or isolated organs using simulated experiments		



*S. S. S.*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### Second Year B. Pharmacy (SEM-IV)

Course Name/Code	BP 405 Pharmacognosy and Phytochemistry I - Theory	Year of Study	2022-2023
BP 405.1	Students shall be able to explain definition, history, scope, development of Pharmacognosy, sources of crude drugs and extend to their classification, quality control methods including quantitative microscopy.		
BP 405.2	Relate the cultivation, collection, processing and storage of crude drugs along with effects of exogenous, endogenous factors affecting conservation and cultivation and apply the information commercially.		
BP 405.3	Understand and apply the basic concept of plant tissue culture in the field of Pharmacognosy and outline the role of edible vaccines.		
BP 405.4	Explain the role of Pharmacognosy in allopathy and various traditional system of medicines with respect to basic principle, diagnosis, treatment etc. and outline classification, chemistry, identification of some important secondary metabolites.		
BP 405.5	Discuss the detail information about source, chemistry, preparation, evaluation, preservation, storage and therapeutic and commercial applications of some important primary metabolites and marine drugs.		

Course Name/Code	BP 409 Pharmacognosy and Phytochemistry I - Practical	Year of Study	2022-2023
BP 409.1	Evaluate and analyze some unorganized crude drugs containing carbohydrates, proteins and fats by chemical tests.		
BP 409.2	Determine important leaf constants, discrete particles such as stomatal index, diameter of starch grains, number of starch grains etc.		
BP 409.3	Estimate ash value, moisture content, swelling and foaming index of some important crude drugs for quantitative evaluation.		



*[Signature]*  
**Principa,**  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### Third Year B. Pharmacy (SEM-V)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Third Year B. Pharmacy (SEM-V)

Course Name/Code	BP 501 Medicinal Chemistry II- Theory	Year of Study	2022-2023
BP 501.1	Student will acquaint themselves chemistry of drugs with respect to their pharmacological activity of drugs like antihistaminics, antineoplastic, antihypertensive, antidiabetic, diuretics, and drugs acting on endocrine system.		
BP 501.2	Students will understand importance of structure activity relationship, physicochemical properties and metabolism of drugs in study of ADME.		
BP 501.3	Students will get Comprehensive knowledge of drugs action and metabolism on the basis of its chemistry or structure and it will help in understanding of adverse effect and therapeutic value of drugs.		
BP 501.4	Students will be able to apply the knowledge of basic organic chemistry in synthesis of drugs.		
BP 501.5	Students will understanding of all components of medicinal chemistry will help in developing critical thinking and evidence-based problem-solving ability.		



*[Signature]*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)

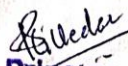


### Third year B. Pharmacy (SEM-V)

Course Name/Code	BP 502 Industrial Pharmacy I-Theory	Year of Study	2022-2023
BP 502.1	Assess the physical and chemical properties of pharmaceutical as means of optimizing dose formulations for liquids and solids		
BP 502.2	Formulate prepare and evaluate tablets, capsules, and liquid orals using established procedures and technology		
BP 502.3	Identify containers, closures, valves and propellants for different types of aerosol systems		
BP 502.4	Examine the stability and quality of the pharmaceutical dosage forms and contrast them with pharmacopoeias recommended standards.		
BP 502.5	Formulate and prepare various forms of parenteral and ophthalmic dosage forms. Describe the equipment and standards required for the industrial manufacture of sterile dosage forms.		

Course Name/Code	BP506 Industrial Pharmacy I - Practical	Year of Study	2022-2023
BP 506.1	To interpret the preformulation studies on drugs		
BP 506.2	To study the preparation, evaluation and coating of tablets and formulation of tablet and capsule and creams		
BP 506.3	To design parental and ophthalmic products and evaluate glass container as per pharmacopoeias specifications		



  
**Principa,**  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Third Year B. Pharmacy (SEM-V)

Course Name/Code	Pharmacology II BP503.T. (Theory)	Year of Study	2022-2023
BP503.1	Analyzing the advantages and disadvantages of drug utilization for diverse cardiac complications.		
BP503.2	Illustrating the mechanisms of drugs affecting the hematopoietic system, including shock diuretics and anti-diuretics.		
BP503.3	Identifying and outlining the functions of autocooids and associated medications		
BP503.4	Analyzing and summarizing the effects of drugs on the endocrine system.		
BP503.5	Evaluating the physiological functions of sex hormones and assessing the impacts of oral contraceptives and drugs influencing uterine activity		

Course Name/Code	Pharmacology II BP507.P. (Practical)	Year of Study	2022-2023
BP507.1	Estimate level of serum biochemical parameters and interpret the results		
BP507.2	Demonstrate effects of various drugs on isolated organs using simulated experiments		
BP507.3	Describe screening methods for diuretic and anti-inflammatory drugs		



*S. S. Sedar*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Course Name/Code	BP 504 Pharmacognosy and Phytochemistry II - Theory	Year of Study	2022-2023
BP 504.1	Explain the role of radioactive isotopes in investigation of biogenetic studies and illustrate basic metabolic pathways for synthesis of important secondary metabolites.		
BP 504.2	Extend the comprehensive knowledge includes source, classification, chemistry and therapeutic uses of crude drugs containing diverse class of phytoconstituents with their commercial applications.		
BP 504.3	Develop and apply the skills and techniques of isolation, identification and analysis of some secondary metabolites.		
BP 504.4	Demonstrate about commercial production, estimation and utilization of some valuable phytoconstituents.		
BP 504.5	Discuss about the general and modern technique of extraction, isolation, purification, identification and spectral characterization of some crude drugs.		

Course Name/Code	BP 508 Pharmacognosy and Phytochemistry II - Practical	Year of Study	2022-2023
BP 508.1	Evaluation of some organized crude drugs containing alkaloids, glycosides and volatile oils under pharmacognostic scheme and analyze some unorganized crude drugs by chemical tests.		
BP 508.2	Develop the techniques for isolation and detection of some important phytoconstituents.		
BP 508.3	Outline the techniques for separation and detection of sugars, phytoconstituents and volatile oil content by paper and thin layer chromatography.		



*A. V. V. V.*  
Principa.  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Course Name/Code	BP 505 Pharmaceutical Jurisprudence- Theory	Year of Study	2022-2023
BP 505.1	Recognize the goals and guidelines pertaining to the import and manufacturing of medications in compliance with the Medications and Cosmetics Act of 1940 and its regulations from 1945.		
BP 505.2	Learn about schedules, laws governing the sale of pharmaceuticals, and specifications for packaging and labeling in compliance with the 1940 pharmaceuticals and Cosmetics Act and its regulations from 1945.		
BP 505.3	Understand aims and regulations of Pharmacy Act 1948, Medicinal and Toilet Preparation Act 1955 and Narcotic Drugs and Psychotropic Substances Act-1985.		
BP 505.4	Recognize the key components of the Drugs and Magic Remedies Act as well as the National Pharmaceutical Pricing Authority's standards, goals, and the Prevention of Cruelty to Animals Act of 1960.		
BP 505.5	Learn about the Right to Information Act, Medical Termination of Pregnancy Act, Code of Pharmaceutical Ethics, and Intellectual Property Rights.		



*K. K. Kulkarni*  
Principa,  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## Third Year B. Pharmacy (SEM-VI)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Third Year B. Pharmacy (SEM-VI)

Course Name/Code	BP 601 Medicinal Chemistry III- Theory	Year of Study	2022-2023
BP 601.1	Student will acquaint themselves chemistry of drugs with respect to their pharmacological activity of drugs like antibiotics, antimalarial, antiviral, antifungal, anthelmintic etc.		
BP 601.2	Students will understand importance of structure activity relationship, physicochemical properties and metabolism of drugs in study of ADME		
BP 601.3	Students will get Comprehensive knowledge of drugs action and metabolism on the basis of its chemistry or structure and it will help in understanding of adverse effect and therapeutic value of drugs.		
BP 601.4	Students will understand application of combinatorial chemistry in respect to drug design.		
BP 601.5	Students will understand the importance of drug design and different techniques of drug design.		

Course Name/Code	BP 607 Medicinal Chemistry III- Practical	Year of Study	2022-2023
BP 607.1	Students will plan and synthesis of drugs as well as intermediated by conventional and microwave assisted techniques.		
BP 607.2	Students will check the purity of tablet formulations by using different assays for drugs.		
BP 607.3	Students will draw structures, reaction and also evaluate ADME properties using different softwares.		



*[Signature]*  
**Principal**  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Third Year B. Pharmacy (SEM-VI)

Course Name/Code	BP602T Pharmacology III	Year of Study	2022-2023
BP 602.1	Classify various drugs used in the treatment of infectious, respiratory and gastrointestinal tract diseases.		
BP 602.2	Illustrate the mechanism of action of drugs used in the treatment of infectious, respiratory and gastrointestinal tract diseases.		
BP 602.3	Identify the dose, contraindications and adverse effects of various drugs used in the treatment of infectious, respiratory and gastrointestinal tract diseases.		
BP 602.4	Explain the pharmacology and significance of Immunopharmacology and Chronopharmacology.		
BP 602.5	Describe the management of drug toxicity.		
BP602.6	Analyze the disease on the basis of their signs, symptoms and suggest suitable treatment.		

Course Name/Code	BP608P Pharmacology III	Year of Study	2022-2023
BP 608.1	Describe screening methods for antiallergic, antiulcer, hypoglycemic activity, pyrogen testing, acute skin and eye irritation		
BP 608.2	Apply various methods of biostatistics in experimental pharmacology		
BP 608.3	Interpret effect of various drugs on gastrointestinal motility, guinea pig ileum and frog intestine		
BP 608.4	Calculate therapeutic dose, LD50 and pharmacokinetic parameters from given data		
BP 608.5	Analyze various serum biochemical parameters		



*Prilledas*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Course Name/Code	BP 603 Herbal Drug Technology - Theory	Year of Study	2022-2023
BP 603.1	Student should be able to define and explain herbs as source of raw material from its identification, cultivation, agricultural practices to preparation of herbal products of various Indian systems of medicine.		
BP 603.2	Outline the general aspects, market, growth, scope, health benefits of some herbs and explain with suitable examples the role of nutraceuticals in various ailments along with food-drug interaction studies.		
BP 603.3	Classify and demonstrate the applications of herbs used as excipients, curative agents for the manufacturing of novel cosmetic preparations for skin care, hair care and oral hygiene products.		
BP 603.4	Explain the ICH and WHO guidelines for evaluation and stability assessment of herbal drugs and outline the patenting aspects of natural products with manufacturing regulations for ASU drugs in India.		
BP 603.5	Discuss the general aspects of herbal industry and extend the application of GMP for Indian system of medicines.		

Course Name/Code	BP 609 Herbal Drug Technology - Practical	Year of Study	2022-2023
BP 609.1	Evaluate the crude drugs and natural excipients as per standard procedures and analyze monograph of some drugs from latest pharmacopoeia.		
BP 609.2	Design, develop and evaluate some herbal and cosmetic products by incorporating prepared or standardized extracts.		
BP 609.3	Determine alcohol, aldehyde, phenol and total alkaloids content of some crude drugs and ayurvedic formulations.		



*[Signature]*  
Principa,  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Third Year B. Pharmacy (SEM-VI)

Course Name/Code	BP604T Biopharmaceutics & Pharmacokinetics Theory	Year of Study	2022-2023
BP 604.1	Illustrate the basic concepts of absorption, distribution, metabolism and elimination with their significance and factors affecting them.		
BP 604.2	Describe the objectives, types, measurement of bioavailability and bioequivalence, and methods for their enhancement.		
BP 604.3	Explain pharmacokinetic models and determination of pharmacokinetic parameters, their significance and applications.		
BP 604.4	Outline multiple dosage regimens based on pharmacokinetic parameters for maximizing patient compliance and therapeutic effectiveness.		
BP 604.5	Discuss various pharmacokinetic parameters for drugs exhibiting non-linear kinetics.		



*Principal*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Third Year B. Pharmacy (SEM-VI)

Course Name/Code	BP 605 Biotechnology- Theory	Year of Study	2022-2023
BP 605.1	To know the importance of biotechnology and its application in industry.		
BP 605.2	To know genetic engineering and its application in medicine.		
BP 605.3	To study how the different immunological products can be developed.		
BP 605.4	Apply knowledge in production of different products by fermentation techniques.		
BP 605.5	To study the significance of monoclonal antibodies.		



*R. V. D. D. S.*  
Principal  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### **BP606T COURSE OUTCOMES of B. PHARMACY**

#### **Pharmaceutical Quality Assurance (Sem VI)- Third Year B. Pharm**

Course Name/Code	BP 606T PQA	Year of Study	2022-2023
BP 606.1	Develop strategies for continuous improvement in pharmaceutical quality assurance, such as implementing Lean or Six sigma principles. Understand and apply cGMP, TQM, ICH guidelines, QbD, ISO management system and NABL accreditation in pharmaceutical industry work environment.		
BP 606.2	Recall the organizational structure of a pharmaceutical manufacturing facility and the roles and responsibilities of key personnel involved in quality assurance. Remember the importance of maintaining proper documentation and records related to premises, equipment, and raw materials.		
BP 606.3	Develop standard operating procedures (SOPs) for quality control testing, documentation, and deviation management.		
BP 606.4	Elaborate various documentation process involved in a day-to-day activity in pharmaceutical industry and complaint handling from technical and regulatory perspectives.		
BP 606.5	Explain the aspects of calibration and validation and apply the knowledge of calibration and validation to instrument and equipment.		



*Principa*  
**Principa**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



## Final Year B. Pharmacy (SEM-VII)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Final Year B. Pharmacy (SEM-VII)

Course Name/Code	BP 701 Instrumental Method of Analysis - Theory	Year of Study	2022-2023
BP 701.1	Student will get acquainted different instrumental methods used on spectroscopic techniques.		
BP 701.2	Students will get knowledge about the interaction between electromagnetic radiations with the matter.		
BP 701.3	Student will understand the theoretical principle behind the different chromatographic separation methods.		
BP 701.4	Students will get knowledge about instrumentation and its working.		
BP 701.5	Student will understand different applications of analytical instruments used of qualitative and quantitative analysis of drugs.		

Course Name/Code	BP 705 Instrumental Method of Analysis - Practical	Year of Study	2022-2023
BP 705.1	Students will develop practical hand in different instrumentations.		
BP 705.2	Students will be able apply theoretical knowledge regarding different instrumental analysis techniques like spectroscopic and chromatographic separation.		
BP 705.3	Students will develop ability of critical thinking and overcoming the problems associated application of specific analytical technique for qualitative as well as quantitative analysis.		



*A. Uedee*  
Principal  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES of B. PHARMACY

#### BP702T Industrial Pharmacy II (Sem VII)- Final Year B. Pharm

Course Name/Code	BP 702 T Industrial Pharmacy II	Year of Study	2022-2023
BP 702.1	Recall key terminology and concepts related to pilot plant and scale-up. Utilize knowledge of equipment and instrumentation used in pilot plant operations. Develop innovative solutions to address challenges encountered during the scale-up process.		
BP 702.2	Students will be able to understand process of technology development and transfer from lab scale to commercial batch.		
BP 702.3	Design a regulatory strategy for the development and approval of a new pharmaceutical product and know different Laws and Acts that regulate pharmaceutical industry.		
BP 702.4	Define key terms related to quality management (e.g. Quality, process, continuous improvement). Analyze the factors affecting the quality and stability of pharmaceutical products during manufacturing.		
BP 702.5	Understand the regulatory requirements and approval procedures for new drugs and certifications required in Pharmaceutical Industry.		



*[Signature]*  
**Principa,**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### Pharmacy Practice (Sem VII) Final Year B. Pharmacy

#### Course outcomes (Cos) Pharmacy Practice Theory (BP703T)

Course Name	Pharmacy Practice	Year of Study 2022-2023
BP 703.1	Interpret various drug distribution methods, classification of hospital in hospital.	
BP 703.2	Explain drug related problem, assess and detect adverse drug reaction.	
BP 703.3	Paraphrase principles of drug store management and inventory control to medication use.	
BP 703.4	Recognize patient counselling, monitor drug therapy, medication history interview and education and training program in the hospital.	
BP 703.5	Understand therapeutic monitoring, clinical pharmacy, community pharmacy management and interpretation of clinical laboratory tests.	



*[Signature]*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Final Year B. Pharmacy (SEM-VII)

Course Name/Code	BP 704 Novel Drug Delivery System- Theory	Year of Study	2022-2023
BP 704.1	Apply the knowledge in characterization of different formulations made by approach of novel drug delivery.		
BP 704.2	To know different types of formulation methods and instruments used in drug delivery system to increase bioavailability and stability of formulation.		
BP 704.3	Analysis and interpretation of data related to marketed available products and need of development in them according to targeted drug delivery system.		
BP 704.4	To know different characterization results as effect of excipients used in development of novel drug delivery formulations.		
BP 704.5	Apply the knowledge for researcher activities to develop new formulations by overcoming the barriers in specific route of administration.		



*[Signature]*  
Principal  
**Anandi Pharmacy College**  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)




## Final Year B. Pharmacy (SEM-VIII)

Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)

Course Name/Code	BP 801 Biostatistics and Research Methodology- Theory	Year of Study	2022-2023
BP 801.1	Students should learn correlations among variables using statistical analysis measures of central tendency and dispersion.		
BP 801.2	Measure the significance of the studies and test hypotheses by analyzing the data using parametric and non-parametric tests.		
BP 801.3	Recognize the importance of research, experiment design, and graphical result interpretation.		
BP 801.4	Understand regression analysis utilizing Excel, SPSS, and tools and software for experiment design.		
BP 801.5	Implementation of experimental design approach in solving the pharmaceutical examples.		

Course Name/Code	BP 802 Social and Preventive Pharmacy- Theory	Year of Study	2022-2023
BP 802.1	Students will gain knowledge of current health and pharmaceutical challenges within the country and worldwide.		
BP 802.2	Ability to recognize a variety of health issues and the related preventive measures.		
BP 802.3	Ability to think critically in light of recent advancements in healthcare.		
BP 802.4	Promotion of community services in accordance with professional ethics in both urban and rural areas.		
BP 802.5	Students will be able to assess different approaches to resolving health and pharmaceutical issues.		

  
Principal,  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal Karveer Dist Kolhapur



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES OF B. PHARMACY

#### Final Year B. Pharmacy (SEM-VIII)

Course Name/Code	BP 805T: Pharmacovigilance	Year of Study	2022-2023
BP 805.1	Explain about the history, basic terminologies & development of Pharmacovigilance & highlight the importance of monitoring in drug safety		
BP 805.2	Applications of the principles of Medra coding & establishing Pharmacovigilance programme in India & providing criteria for PV.		
BP 805.3	Analyze identified problems and communicate effectively with the regulatory bodies & other stake holders pertaining to the vaccine Pharmacovigilance.		
BP 805.4	Application of ICH Guidelines and clear instructions to follow the practice of Pharmacovigilance in GMP environment.		



*K. Uedar*  
**Principal**  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur.



Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI B. PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



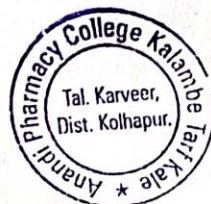
Anandi Shikshan Prasarak Mandal Sanchalit  
**ANANDI PHARMACY COLLEGE,**  
Kalambe Tarf Kale, Tal: Karveer, Dist: Kolhapur-416205 (M. S.) India  
Approved by PCI New Delhi, Recognized by DTE, Mumbai, Govt. of Maharashtra,  
Affiliated to Shivaji University, Kolhapur  
Email: [anandipharmacycollege02@gmail.com](mailto:anandipharmacycollege02@gmail.com)



### COURSE OUTCOMES of B. PHARMACY

#### BP809ET Cosmetic Science (Sem VIII)- Final Year B. Pharm

Course Name/Code	BP 809ET Cosmetic Science	Year of Study	2022-2023
BP 809.1	Students will able to understand difference between cosmetics and cosmeceutical products, classification, basic structure and functions of skin, hair, nail, eye and oral, Recall and list the key components used in cosmetic formulations.		
BP 809.2	Students will know the general aspects, principles of formulation and building blocks and basic and novel ingredients of cosmetic preparations and their safe use in development of various cosmetic products for skin, hair and oral as per regulations.		
BP 809.3	Understand various problems and need for development of cosmetic formulation utilize herbal ingredients in cosmetic formulations to address specific skincare, hair care and oral care concerns or achieve desired cosmetic effects.		
BP 809.4	Students will able to know regulatory provision in manufacturing, evaluation, packaging, sale and safe use of cosmetic formulations. Propose strategies for improving the safety, efficacy, and sustainability of cosmetic formulations.		
BP 809.5	Students will able to understand to plan, formulate, manufacture packing, labeling and quality evaluation of conventional and modern cosmetic for skin and hair formulation.		



*Principia*  
Anandi Pharmacy College  
Kalambe Tarf Kale,  
Tal. Karveer, Dist. Kolhapur