



BHARAT INSTITUTE OF TECHNOLOGY

Mangalpally, Ibrahimpatnam, R.R. District, PIN-501510

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Below are listed various teaching-learning methods and activities which is conducted in our Institution for the year 2023-2024.

Innovative and Interactive Methods

1. Escape Room Challenge: Encourages problem-solving and teamwork.
2. The Body System Puzzle Game: Enhances understanding of human anatomy.
3. Yoga and Wellness: Fosters physical and mental well-being.
4. Medical Camping: Provides hands-on experience and real-world application.

Technology-Integrated Learning

1. MOOC (Massive Open Online Courses): Offers flexible, online learning opportunities.
2. Poster Presentations: Develops visual communication and presentation skills.
3. Oral Presentations: Enhances public speaking and communication skills.

Collaborative and Reflective Learning

1. Workshops: Facilitates hands-on learning and skill development.
2. Group Discussions: Encourages critical thinking, debate, and teamwork.
3. Peer Learning: Fosters collaboration, feedback, and mutual understanding.

Assessment and Evaluation Methods

1. Assignments: Evaluates students' understanding and application of concepts.
2. Case Studies: Develops analytical and problem-solving skills.
3. Project and Publications: Encourages original research, critical thinking, and dissemination of knowledge.

Other Initiatives

1. Pharmacy Education Day: Raises awareness and promotes education in pharmacy-related fields.
2. Activity-Based Learning: Engages students in experiential learning, promoting deeper understanding and retention.

These teaching-learning methods and activities cater to diverse learning styles, promoting a comprehensive and engaging educational experience.


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Scientific Model:

Working models are vital tools for exploration, education, and innovation, fostering understanding and pushing the boundaries of knowledge and application. All the students were encouraged to participate in Scientific Model Making and Working Model where many models were made by the students on the topics such as preparation of Kajal, Model of herbal garden, Fetal development, Manufacture of Tablets etc.




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FUN LEARNING ACTIVITIES:

1. "Escape Room Challenge" (Classroom Edition)

Escape Room Challenge is the outdoor activity where Students solve puzzles and complete challenges to "escape" a virtual or physical room while reviewing concepts they've learned.

- Students apply learned concepts in a dynamic and engaging environment.
- Enhances critical thinking, problem-solving, and collaboration skills.
- Makes learning enjoyable and memorable.

This is an activity where student came forward to do the action based on the anatomical terminologies for different movements of the body. The outcome of the event was as follows:

1. Deepens understanding of anatomy and physiology concepts.
2. Encourages teamwork, critical thinking, and hands-on learning.
3. Makes abstract concepts tangible and memorable.



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2. "The Body Systems Puzzle Game"

Objective:

This activity helps build teamwork, communication, and critical thinking while reinforcing knowledge about body systems. It's perfect for groups sitting together.

- Students were made to sit in groups and were given puzzles to solve. Each Groups must sort through their puzzle pieces and assemble complete body systems.
- For example, they might combine the heart, blood vessels, and lungs to form the circulatory system.

Learning Outcomes:

- Encourages collaboration and communication within groups.
- Reinforces knowledge of anatomy and physiology in a hands-on, visual way.
- Builds critical thinking and problem-solving skills.

Would you like printable puzzle pieces or more variations of this activity?



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"Yoga Wellness Workshop"

Objective:

Promote physical health, mental clarity, and relaxation among college students through an engaging yoga session tailored to their needs.

1. Workshop Theme Options

- **Stress Relief Yoga:** Focus on breathing techniques and relaxing poses to manage academic stress.
- **Energizing Flow:** Dynamic movements to invigorate the body and mind, perfect for a morning session.
- **Yoga for Posture:** Address issues caused by prolonged sitting, like back pain and neck stiffness.
- **Mindful Yoga:** Combine meditation and yoga to enhance focus and mindfulness.


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MOOC: MOOC is a free or low-cost online course designed for unlimited participation and open access via the internet. They often include video lectures, reading materials, quizzes, and peer or instructor assessments.



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CERTIFICATE OF ACHIEVEMENT

This certificate is presented to

Kanchi Ramyasree

for successfully completing a Course about

Soft Skills

Certified No.

14417126187

Course Duration 1 hour



2023-12-06
Date

www.mindluster.com

CERTIFICATE OF ACHIEVEMENT

This certificate is presented to

Kanchi Ramyasree

for successfully completing a Course about

Digital Strategy Brand Marketing Workshop

Certified No.

14417125373

Course Duration 1 hour



2023-12-06
Date

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CERTIFICATE OF ACHIEVEMENT

This certificate is presented to

DOMALA SPANDHANA

for successfully completing a Course about

Digital Strategy Brand Marketing Workshop

Course Start Date: 2023-12-07

Certified No.

13717216658

Course Duration: 1 hour



www.mindluster.com



2023-12-07

Date

Hypertension causes and treatments

Course Start Date: 2024-06-15

Certified No.

18354311134



www.mindluster.com



2024-06-15

Date

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Poster Presentation:

Teaching learning is a process which is practiced by the outcome-based learning. Bharat Institute of Technology conducts many events of poster presentation both in college and national level. Students from various departments such as B. Pharmacy, Pharm D, PharmD (PB) and M. Pharm students participate to upgrade their knowledge and skills.



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ANTIBIOTIC RESISTANCE :

A GROWING THREAT TO GLOBAL HEALTH

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ABSTRACT:

Antibiotic resistance has become a critical challenge in global healthcare, threatening the effectiveness of treatments for common infections. It occurs when bacteria evolve mechanisms to resist the effects of antibiotics, rendering standard treatments ineffective, leading to prolonged illnesses, increased healthcare costs, and higher mortality rates. The misuse and overuse of antibiotics in both human medicine and agriculture, coupled with poor infection control measures, have accelerated this issue. With fewer new antibiotics being developed, the world faces the potential return to a pre-antibiotic era, where minor infections could once again be life-threatening. This poster explores the causes, mechanisms, and far-reaching impacts of antibiotic resistance, improved infection prevention strategies, and investment in new therapeutic approaches. Addressing this crisis requires coordinated global action to safeguard the effectiveness of antibiotics for future generations.

Keywords:

Antibiotic resistance, global healthcare, overuse & misuse, new antibiotics, public health, therapeutic approaches

INTRODUCTION / BACKGROUND:

Antibiotic resistance is a growing global health challenge, threatening our ability to effectively treat infectious diseases. This phenomenon occurs when bacteria evolve mechanisms to resist the effects of antibiotics, rendering standard treatments ineffective.

This presentation will explore the mechanisms behind antibiotic resistance, its global impact, and strategies to combat it, public awareness, and research into novel treatments. Understanding this issue is crucial to safeguarding public health and preserving the efficacy of antibiotics for future generations.



Fig 1: Antimicrobial Resistance

METHODOLOGICAL SEARCH / LITERATURE SEARCH

1. World Health Organization from <https://www.who.int/news-room/factsheet/detail/antimicrobial-resistance> (Assessed March 21, 2023).
2. Antimicrobial Resistance: a global multifaceted phenomenon. Pathog. Glob Health (2015)-PubMed.



Fig 2: How Antibiotic Resistance happens

CAUSES:

- Drug related factors
- Increasing the use of antibiotics
- Patient related factors
- Poor adherence
- Misconception
- Prescriber related factors
- Inadequate dosing
- Inappropriate use of available drug

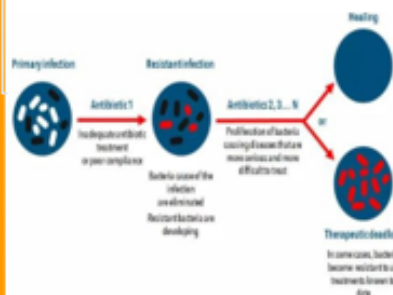


Fig 3: Antibiotic Resistance: over use or misuse

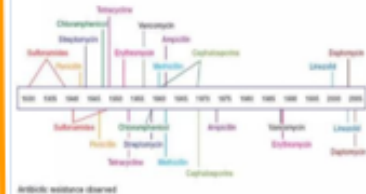


Fig 4: Timeline of Antibiotic Resistance



CONCLUSION & FUTURE SCOPE:

To address this challenge, coordinated efforts are essential, including promoting responsible antibiotic use, enhancing infection prevention and control measures, and investing in research for new treatments and diagnostic tools. Public education and international collaboration are also critical to mitigating the spread of resistant bacteria.

By taking proactive steps now, we can slow the progression of antibiotic resistance and ensure that life-saving antibiotics remain effective for future generations. Together, we can combat this urgent global health threat.

REFERENCES:

- *World Health Organization (WHO). (2021). Antimicrobial Resistance. Retrieved from <https://www.who.int/>
- *Chakraborty, microbiology book.



A Two-day International conference on "Pharmacy 4.0: Integrating AI, ML & IOT for Multidisciplinary Future 6th and 7th December 2024

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Work shop: Workshops are an essential component of participative and experiential learning. They provide students with hands-on experience, enhance their practical skills, and bridge the gap between theoretical knowledge and real-world application. The workshop conducted was on clinical research.



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Medical Camp: Medical camping serves as an important way to provide healthcare services to underserved populations or in areas with limited access to medical facilities. General health checkups such as blood pressure measurement, blood sugar testing, and screenings for common conditions like diabetes, hypertension, and cholesterol levels were carried out.




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CIRCULAR

NATIONAL PHARMACY EDUCATION DAY

4/03/2024

We are pleased to announce the following schedule for NATIONAL PHARMACY EDUCATION DAY celebrations to be conducted on 6th MARCH-2024. We are glad to invite the B. Pharmacy and Pharm-D students for their active participation and we request class In-charge's to kindly guide the students according to program schedule.

Venue: Bharat Institutions

Time : 9:30 AM

- **Pharmacist Rally**: 9:30-10:30 (In Campus)
- **Guest lecture** on Pharmacist meeting global health needs. (10.30 am to 12.30 pm)
- **Poster Presentation**

Competitions: 2:00-4:00

1. Poster Presentation
2. Guest lecture on Pharmacist meeting global health needs.
3. Rally

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Oral Presentation: Oral presentation was given by students from B. Pharm, PharmD, PharmD (PB) and M. Pharm students. It provided an opportunity for the students to practice their skill which help them to effectively work in their respective career.



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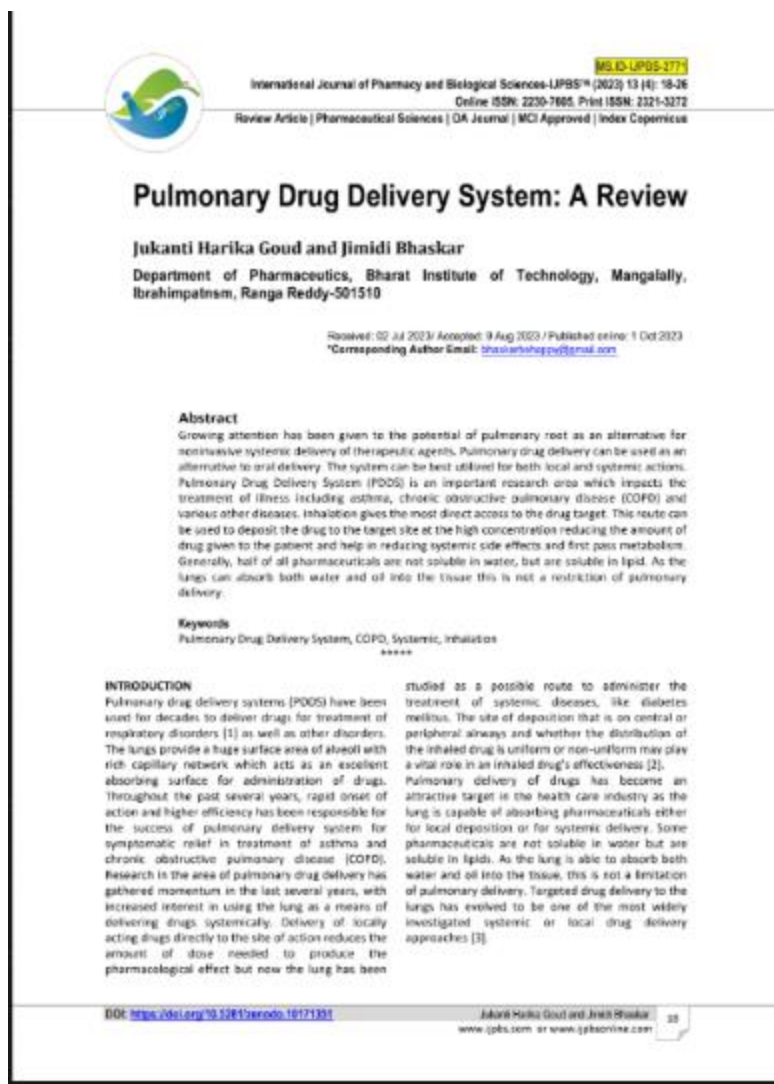
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Project and Publications: Projects are integral to the curriculum, fostering critical thinking, research skills, and practical application of theoretical knowledge. Students engage in individual or group projects addressing real-world problems, enhancing their creativity and problem-solving abilities. Evaluation through detailed reports and viva voce sharpens presentation and rational thinking skills. This approach bridges academic learning with industry readiness, ensuring holistic student development.

All the B. Pharm, Pharm D, PharmD (PB) and M. Pharm students are encouraged to go for the publications in a good journal which will encourage the students to carry more research work in the field of pharmacy.

Student Publication



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FORMULATION AND EVALUATION OF MUCOADHESIVE BUCCAL PATCHES OF ATOMOXETINE HYDROCHLORIDE

Jukanti Harika Goud and Jimidi Bhaskar*

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ABSTRACT

Atomoxetine hydrochloride (ATH) is a selective norepinephrine reuptake inhibitor commonly prescribed for the management of attention deficit hyperactivity disorder (ADHD). This study focuses on the development of mucoadhesive buccal patches for Atomoxetine Hydrochloride to enhance its bioavailability and provide extended drug release. The formulation process involves selecting appropriate polymers and excipients to optimize the mucoadhesive properties, mechanical strength, and drug release kinetics of the patches. Characterization studies will evaluate physical properties such as thickness, weight variation, and surface pH, along with mucoadhesive strength using techniques like texture analysis. In vitro drug release studies will be conducted to determine the release profile of Atomoxetine Hydrochloride, with data analysis using mathematical models to understand the underlying release mechanisms. The goal is to create an effective buccal delivery system that improves the therapeutic efficacy of Atomoxetine Hydrochloride.

KEYWORDS: Atomoxetine Hydrochloride, HPMC E15, HEC, and PVP.

1. INTRODUCTION

The oral route is widely preferred for drug delivery but faces challenges like hepatic first-pass metabolism and enzymatic breakdown in the gastrointestinal tract, limiting its efficacy for certain drugs, especially peptides and proteins. To address these issues, alternative mucosal surfaces such as the nasal, rectal, vaginal, ocular, and oral cavities have been explored. These transmucosal routes bypass the first-pass effect, avoid presystemic degradation, and often provide a more favorable enzymatic environment for drug absorption. Among these, buccal delivery is particularly useful for localized treatments, like periodontal disease and infections, and is increasingly favoured for systemic drug delivery due to its ability to bypass hepatic metabolism via direct entry into systemic circulation through the jugular vein. Mucoadhesive systems, including tablets, films, patches, and gels, have gained popularity for their ability to prolong drug contact with mucosal surfaces, with buccal patches offering added benefits like flexibility, comfort, and


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FORMULATION AND EVALUATION OF RIFAMPICIN NANOPARTICLES

Kondoju Shailaja and Jimidi Bhaskar*

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ABSTRACT

Nanoparticles offer innovative solutions for drug delivery and research due to their unique size-dependent properties and potential for new therapeutic developments. They enable controlled and site-specific drug delivery, presenting advantages over traditional vehicles like creams and emulsions, such as controlled release, minimal skin irritation, and active compound protection. However, challenges include drug expulsion from nanoparticles due to the highly ordered crystalline lipid matrix, which restricts drug accommodation. To address this, nanostructured lipid carriers (NLC) were explored. This study focuses on formulating Rifampicin nanoparticles using NLC to enhance stability and targeted delivery. Rifampicin, an antimicrobial agent for mycobacterial and gram-positive infections, was chosen as the model drug. The research evaluates the performance of Rifampicin-loaded NLC in terms of drug release, stability, and efficacy, demonstrating significant improvements in drug delivery systems.

KEYWORDS: Nanostructured Lipid carriers (NLC), Nanotechnology, Nanoparticles.

1. INTRODUCTION

Nanotechnology, focusing on particles between 1 and 100 nanometres, has garnered significant attention due to the unique properties of nanoparticles at this scale. These particles, composed of materials like carbon, metals, or organic compounds, exhibit distinct physical, chemical, and biological behaviours compared to larger particles, attributed to their high surface-area-to-volume ratio and enhanced reactivity or stability. Nanoparticles come in various shapes and sizes, including zero-dimensional nano dots, one-dimensional structures like graphene, two-dimensional forms such as carbon nanotubes, and three-dimensional entities like gold nanoparticles. They can be spherical, cylindrical, conical, or irregular, with diverse surface characteristics and structural forms. Advances in synthesis methods and instrumentation have improved nanoparticle properties and reduced production costs, leading to their integration into a wide range of applications from cooking utensils and electronics to renewable energy and aerospace, highlighting their role in advancing sustainable technologies.^[1-5]

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EVALUATION OF ANTIBACTERIAL AND ANTIFUNGAL ACTIVITY OF
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AUTHOR NAMES:

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Students Projects

A PROJECT REPORT ON
PHYTOCHEMICAL INVESTIGATION AND SCREENING OF DIURETIC ACTIVITY OF
CASINIA EUSTULA ROOTS


A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF
MASTER OF PHARMACY

Submitted to


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
HYDERABAD

By
V.DIVYA
(2217180114)

Under the guidance of
Dr. REDDY NAZEMOON M.Pharm, PhD
Dept of Pharmaceutics


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Mangalpally(V), Ibrahimpatnam(M), R.R. Dist., Telangana - 501510
Ph.no:08414 252313999; Fax: 08414-252648; Email: principal.biot@bharat.ac.in

A PROJECT REPORT ON
FORMULATION AND CHARACTERIZATION OF TRANSDERMAL DRUG DELIVERY
SYSTEM OF AMLODIPINE

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF
MASTER OF PHARMACY

Submitted to



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

SALEHA (2217184085)
Under the guidance of
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Dept of Pharmaceutics


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Ph.no:08414 252313999; Fax: 08414-252648; Email: principal.biot@bharat.ac.in

**QUANTITATIVE ESTIMATION OF ASPIRIN IN TABLET
DOSSAGE FORM BY RP-HPLC METHOD**


Submitted to


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
HYDERABAD

BACHELOR OF PHARMACY

Submitted by:
B. DIVYA (1811180081)
B. NAGAR (1811180082)
B. PETHALA (1811180083)
B. SANKAR (1811180084)
D. DEEPA (1811180085)

Under the guidance of
MR. J. RACHETI, NIVEDITA
M. PHARMACY
Assistant Professor
Department of Pharmacy


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Ph.no:08414 252313999; Fax: 08414-252648; Email: principal.biot@bharat.ac.in

**ASSESSMENT OF PHARMACOLOGICAL
INTERVENTIONS OF CHRONIC ALCOHOLIC LIVER
DISEASE AND THEIR CLINICAL OUTCOMES**

Submitted to


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
HYDERABAD

BACHELOR OF PHARMACY

Submitted by:
DARSHI PRASAD (1811180086)
RASARANI ANILYA (1811180087)
CHOTA NITHA (1811180088)

Under the guidance of
DR. BETHU BABU
CONSULTANT GASTROENTEROLOGIST & HEPATOLOGIST
KRISHNA INSTITUTE OF MEDICAL SCIENCE
HYDERABAD

INSTITUTIONAL GUIDE:
MR. J. RACHETI, NIVEDITA
ASSISTANT PROFESSOR
BHARAT INSTITUTE OF TECHNOLOGY
IBRAHIMPATNAM


BHARAT INSTITUTE OF TECHNOLOGY
Mangalpally, Ibrahimpatnam
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2024

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Activity-based learning: Activity-based learning emphasizes student engagement through hands-on and participatory methods. This approach cultivates creativity, problem-solving skills, and industry readiness by aligning theoretical concepts with practical applications.




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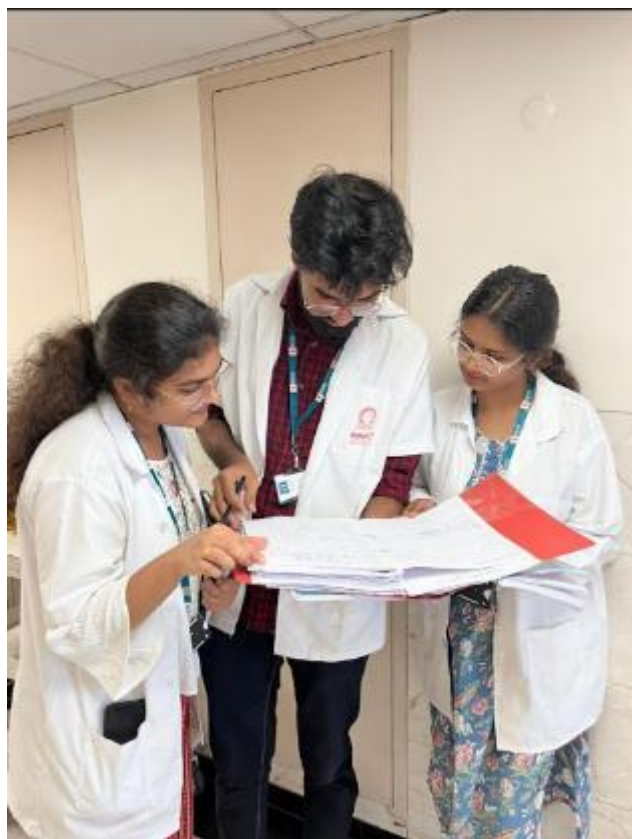


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Case Study: Pharm D students are playing role in bridging the gap between the physician and the patient by providing various clinical services using their clinical knowledge and practice skills. Case studies are written descriptions of an intensive study about a patient's real-life problems or pre-defined case scenarios. The details of the patient present history, past history, social history, allergic history, etc. which are encountered during the ward round and patient interaction are noted. The students are actively involved in the analysis of the collected cases, reviewing subjective-objective parameters of the patient, analyzing the provisional diagnosis, differential diagnosis, and comparing the treatment chart with given standard treatment guidelines. The case study learning will primarily help the students to develop skills of critical thinking, decision making, problem-based learning to generate an in-depth understanding of a complex issue in real life context, to rule out the possible drug- drug interactions, drug-food interactions, drug interventions cost benefit analysis and ADR's, the use of case studies and other clinical activities will enhance the development of essential skills necessary to practice in any setting of the health care system, manage care pharmacy, community pharmacy, hospital pharmacy.



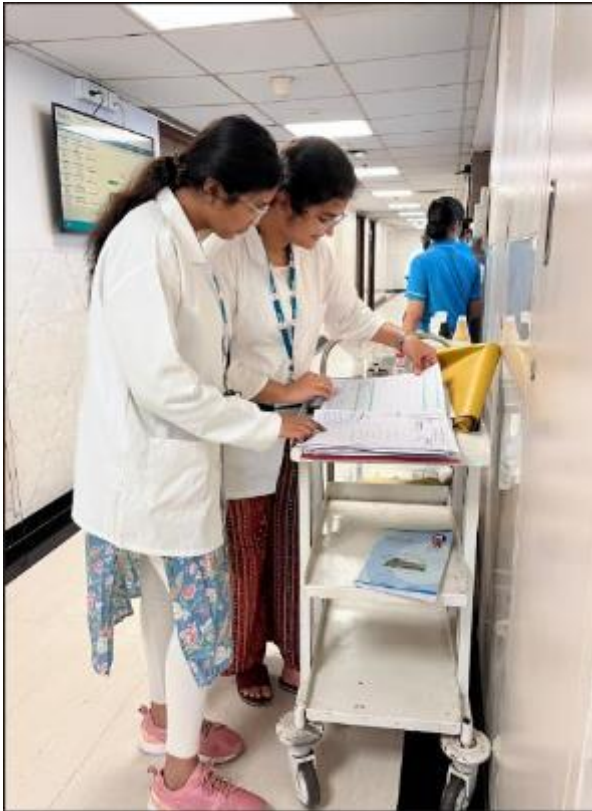

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CASE PRESENTATION ON CORONARY ARTERY

PRESENTED TO ,
Twila Ma'am
(Assistant Professor)

PRESENTED BY ,
Kartekar Ankitha,
Pharm.d (PB)-II yr

Case presentation on cardiomyopathy

Presented by,
P.Shambhavi
22171T0024
Pharmd 2nd year

Presented to,
Dr. Safa Mam
Professor of pharmd

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A CASE STUDY ON INTERSTITIAL LUNG DISEASE.

PRESENTED BY
AMGOTH SAGAR NAIK
PHARM-D PB 2nd YEAR
21175T0007

A CASE STUDY ON VIRAL PYREXIA WITH SIDE INFECTIONS.

PRESENTED BY
AMGOTH SAGAR NAIK
PHARM-D PB 2nd
YEAR
21175T0007


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R.R. Dist - 501 510, Telangana.

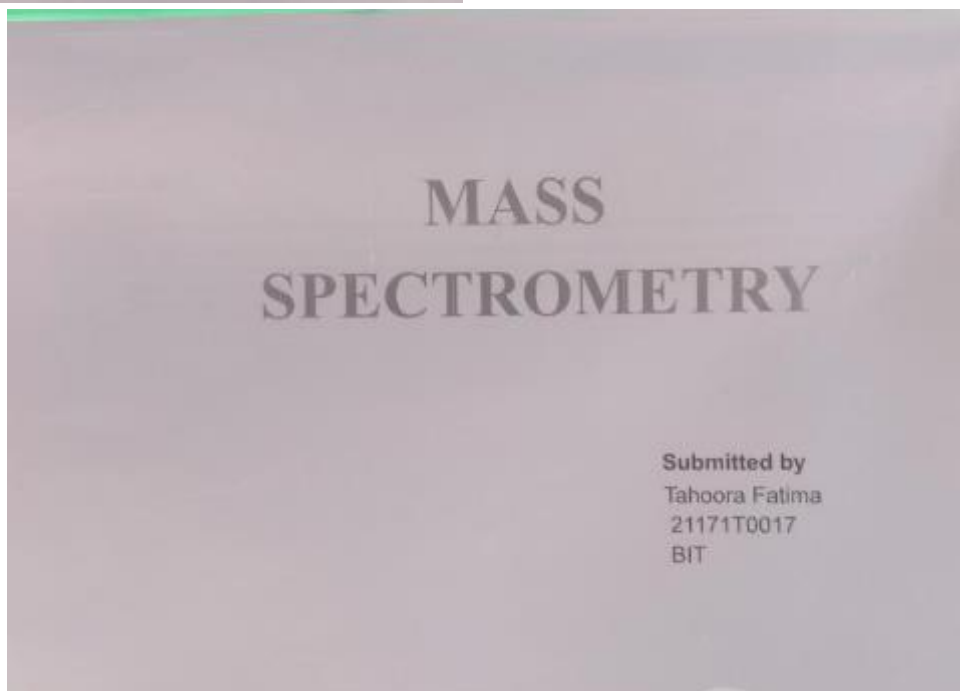
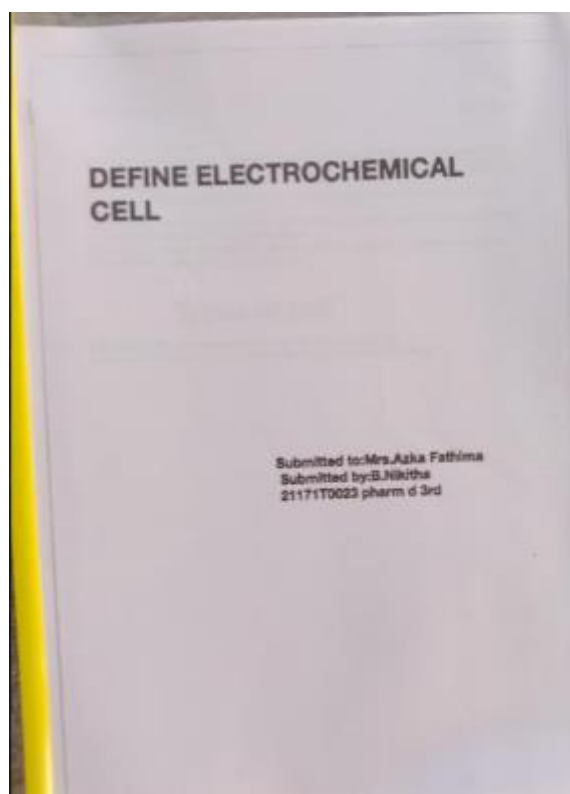
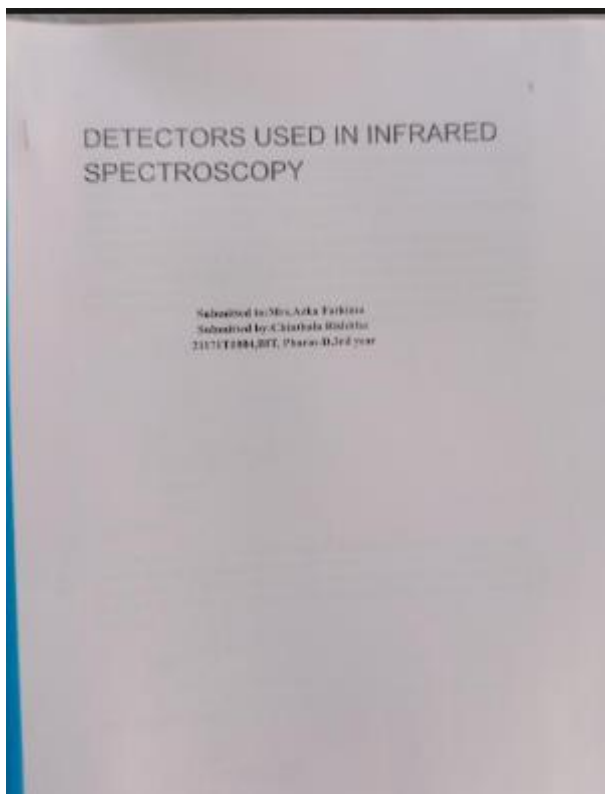


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Assignments: Assignments are given to the students as part of the curriculum. MID marks are for total 25 marks in which 5 marks is given for the students as an Internal Assessment. There will be two MIDS in each semester for B. Pharmacy.



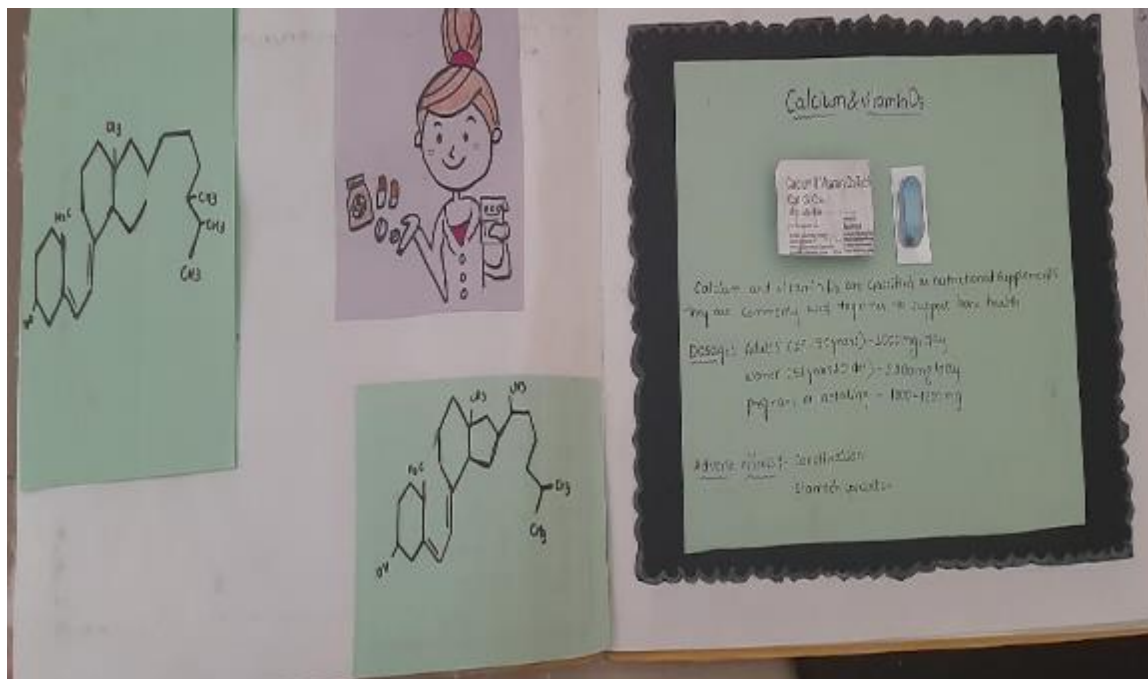
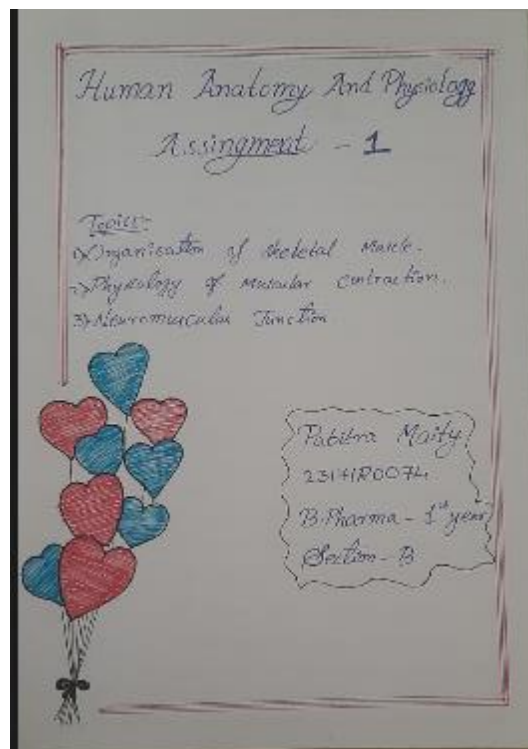
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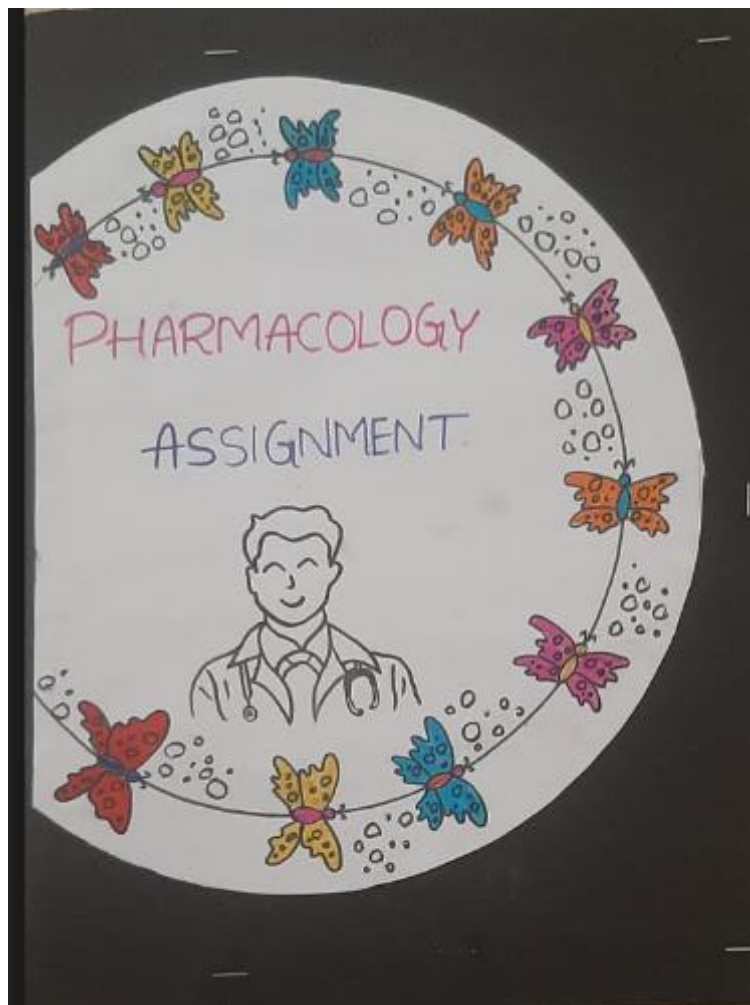
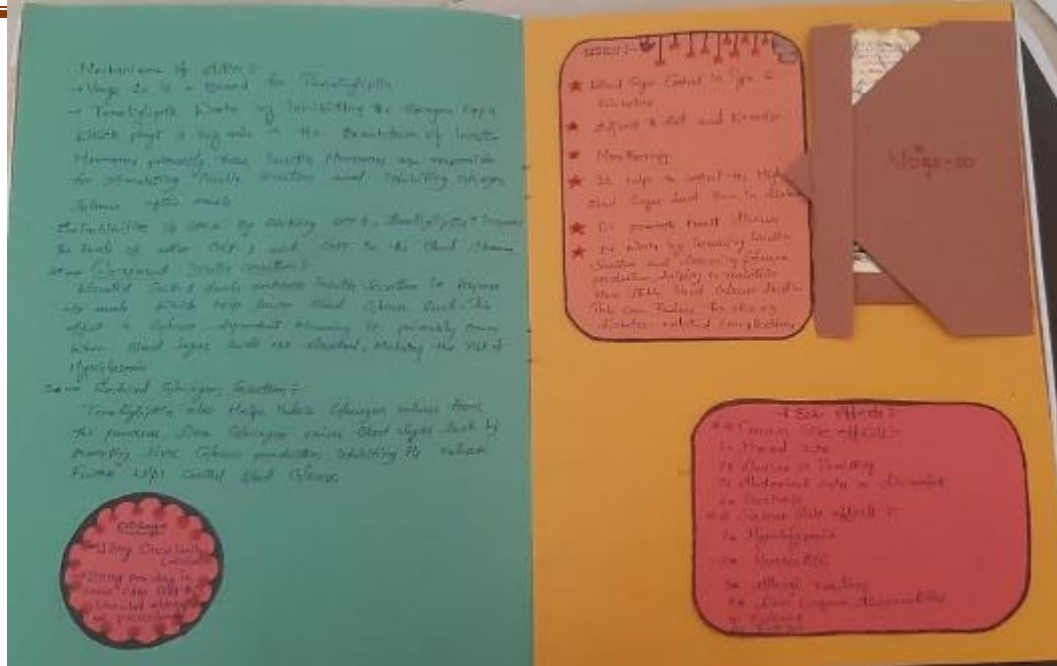
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Group Discussion and Peer learning

Group discussions and peer learning are collaborative learning strategies that promote active participation, critical thinking, and knowledge sharing among students. They involve discussions that challenge their understanding and encourage them to think critically about different perspectives. Participants practice articulating their thoughts clearly and listening to others, which enhances their verbal communication skills.



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