



## NATIONAL EDUCATION POLICY (NEP) IMPLEMENTATION

### 1. MULTIDISCIPLINARY/INTERDISCIPLINARY:

The institution offers a dynamic and cutting-edge curriculum that encompasses credit-based courses and projects across all programs. The B Pharm program offers a plethora of avenues for students to individualize their learning experience. With 11 elective subjects spanning various facets of pharmacy and research, students have ample opportunity to pursue their interests and passions. In addition, the program offers 5 distinct practice school domains, each with a robust 150-hour syllabus designed to immerse students in real-world scenarios and challenges. The overarching goal of the program is to equip students with the knowledge and skills they need to thrive in the field of pharmacy. Both B Pharm and Pharm D programs offer research and internship opportunities as integral components of their curriculum. Students choose their research topics by identifying the most critical social issues and challenges related to various drugs. They then utilize their theoretical knowledge and practical skills to confront real-world problems in the realm of pharmacy. Research findings and related activities are disseminated to the public via extension activities and patient counseling. Diverse communication methods are employed to communicate research outcomes and implications to the pertinent stakeholders in a lucid and succinct manner.

The students are invited to participate in multidisciplinary innovation summits, where they can present their innovative ideas within and beyond the field of pharmacy education. They also participate in workshops on 3D printing and the Young Innovator program, which helps to enhance their research skills. The institution collaborates with various industries and dental hospitals to conduct interdisciplinary research, including the development of herbal drugs with pharmacological screening and dental implants. The institution has established a conducive research environment and aims to apply for more research grants in the future to address societal issues. The research ecosystem is well-structured and promotes collaboration across disciplines. The institution offers interdisciplinary training programs for students of MBBS, BDS, and VHSC



to equip them with the skills and knowledge required for their respective fields of study. The training programs uphold high standards of academic excellence and professional ethics. The technology transfer incubation center facilitates the development and commercialization of innovative solutions, fostering a favorable environment for high-quality research. Idea summit and hackathons are organized to foster innovation, collaboration and problem-solving among diverse groups of people. They provide an opportunity for participants to showcase their skills, learn new technologies and network with peers and mentors. Idea summit and hackathons are also a platform for generating novel solutions to real-world challenges and creating social impact.

## **2. Academic bank of credits (ABC):**

The institution is registered with the National Academic Depository and the Academic Bank of Credits. It has collaborated with AIMST University Malaysia to offer foreign education opportunities for our students. As part of this collaboration, our Pharm D students have the chance to do a 3-month internship in a Malaysian hospital, which provides them with valuable experience. Moreover, the institution has national collaborations with various hospitals and industries that offer a wealth of knowledge to keep up with modern technology and meet the latest industrial needs. In this institution, faculty members are designing their teaching methods and delivery processes based on the provided syllabus. They plan ahead to use various pedagogical approaches to actively engage students in the learning process. The curriculum planning document outlines the objectives, content, methods, and evaluation of a course, specifying the course, unit, and topic outcomes that students are expected to achieve, along with the cognitive skills they need to demonstrate according to Bloom's Taxonomy. Additionally, it provides information about the teaching strategies, assessment tools, learning resources, and teaching aids that will be utilized to facilitate and measure student learning.

At our institution, we prioritize student-centered and experiential learning methods. Our teachers are proactive in identifying any gaps in the syllabus and adding additional topics to ensure that students achieve the desired outcomes. We use a sophisticated assessment system to analyze each student's performance. Our faculty employs a well-defined rubric system to assess outcomes. By designing, effectively implementing, and regularly evaluating our curricula, we ensure that our students acquire skills that match industrial demand.



### 3. Skill development

The institution's skill development plan and syllabus are tailored to provide each program's students with the essential competencies required for academic and professional success. Experienced trainers deliver skill development programs, guiding the students through various modules and activities. These programs are integrated into the mainstream curriculum.

The first-year students are offered programs, such as Life Skills (yoga, physical fitness, health and hygiene), interpersonal skills, presentation skills, communication, receptive attitude, confidence, leadership, and public speaking. In the second year, the focus is on training students for goal setting, problem-solving, and ICT. The third-year students receive training for developing a positive attitude, adaptability, time management skills, and interaction and involvement in professional groups. In the final year, the students receive guidance on work ethics, personal interview skills, group discussions, grooming, email etiquette, and CV preparation.

As part of their education, students have access to a range of vocational opportunities, including part-time pharmacy jobs, industrial and hospital internships, and training in the pharmacovigilance program of India. They are also introduced to the International Society for Pharmacoeconomics and Outcomes Research and the Drug Information Centre. Through participating in hospital ward rounds and interacting with doctors, nurses, other healthcare professionals, and patients, they gain a broad understanding of the field. Additionally, they develop soft skills that are essential for their career success.

The institution's core values comprise faith in God, love for fellow beings, moral uprightness, social responsibility, and the pursuit of excellence. These values serve as guiding principles in all educational endeavors of the institution, and it holds steadfast to them in all its initiatives. The institution seamlessly integrates these values into its educational curricula, which are designed to address a wide range of cross-cutting issues while fostering ethical and human values among the students. Furthermore, the institution hosts a range of events such as commemorative day celebrations, national festivals, NSS activities, Narcotics awareness programs, etc., aimed at promoting scientific temper and civic values.

The institution offers a comprehensive skills development syllabus, complemented by add-on courses, to augment the employability of its students. The academic faculty proactively identifies and addresses gaps in the syllabus by conducting supplementary training sessions and



organizing industry visits. With a view toward fostering an environment of continuous learning, the institution endeavors to collaborate with NSDC for future skill development and certification programs. Furthermore, the institution incentivizes and motivates students to pursue Massive Open Online Courses (MOOCs) by offering a range of scholarships.

#### **4.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)**

The institution upholds and promotes the rich culture of the Indian knowledge system. As a part of its curriculum, the institution provides yoga courses to all its students every year. The course is designed to impart theoretical as well as practical knowledge of yoga. In addition, the institution also offers a comprehensive training program on the identification and usage of medicinal herbs to educate students on the ancient knowledge of Indian herbal medicine. The institution also conducts various research activities to explore and validate the medicinal properties of different herbs.

#### **5. Focus on Outcome-based education (OBE):**

For the past 5 years, our institution has adopted the outcome-based education approach. This approach aligns the teaching, learning, and assessment process with the desired outcomes. We have defined program outcomes, program-specific outcomes, course outcomes, and unit outcomes, and have mapped all outcomes with Bloom's Taxonomy. Our teachers are trained in designing the curriculum based on OBE, and new teachers are oriented to OBE practice. Adequate training and display of outcomes in various places, including the LMS, have been provided to ensure our students are informed about this approach.

At the beginning of each unit, the teachers communicate the learning outcomes and corresponding bloom levels to the students in all the classes. They adopt a student-centered and innovative teaching approach that aligns with the principles of OBE. They also use a specialized rubric analysis to measure the attainment of program outcomes. The institution has implemented a software tool that evaluates the program outcomes at the individual student level. The assessment report provides feedback to the student on their strengths and areas for improvement. The student can use this information to set new goals and work towards achieving them.

#### **6. Distance education/online education:**

Our institution encourages the use of technology in teaching. We use a variety of software tools in all departments to improve the student's learning outcomes.



- **Micromedex Drug Information Software:** for accessing evidence-based drug information,
- **AutoDock Vina :** an open-source program for doing molecular docking,
- **Schrödinger Maestro:** a versatile molecular modeling environment that can be used for drug design and materials science. It allows to build, edit, run, and analyze chemical model systems using various computational methods, such as quantum mechanics, molecular dynamics, and machine learning,
- **ChemSketch:** to draw and edit chemical structures, molecules, and reactions,
- **SwissTargetPrediction:** a web-based tool that allows to estimate the most probable macromolecular targets of a small molecule
- **ProtParam:** computes various physical and chemical parameters for a given protein sequence
- **Ex-Pharm:** simulates animal experiments in pharmacology,
- **SigmaPlot :** allows to create and customize scientific graphs and statistical reports,
- **GraphPad Prism:** helps to analyze, graph, and present scientific data. It is designed for scientists, and it can perform various types of statistical analyses
- **Graphpad instat :** helps to perform statistical analyses without requiring much statistical knowledge,
- **Design expert:** helps to perform design of experiments (DOE), which is a technique to plan and analyze experiments that involve multiple factors and responses,
- **Swiss ADME:** to compute various properties and parameters of small molecules that are relevant for drug discovery,
- **PKMP:** A software solutions for pharmacokinetic calculations.

We also adopt different teaching methods to cater to the diverse needs of the students. For example, we use visual aids and demonstration classes to help them grasp the concepts better.

The institution adopts a hybrid approach to teaching in both online and offline modes. Many lectures are videotaped and published on YouTube so that students can watch them whenever they want. We also provide students with access to a digital library and online journal subscriptions to help them learn more effectively. The LMS platform allows students to download study materials from any location at any time.

