



NIRMA
UNIVERSITY

INSTITUTE OF PHARMACY

NAAC ACCREDITED 'A+' GRADE



M.PHARM.

VOLUME II

STUDENTS'
INFORMATION
BOOKLET

2025-26



प्रार्थना

या कुन्देन्दु तुषारहार धवला या शुभ्र वस्त्रावृता ।
या वीणा वर दण्ड मण्डितकरा या श्वेत पद्मासना ॥
या ब्रह्माच्युत शंकर प्रभृतिभिः देवैः सदा वन्दिता ।
सा मां पातु सरस्वती भगवती निःशेष जाड्यापहा ॥

श्लोक अर्थ - जो विद्या की देवी भगवती सरस्वती कुन्द के फूल, चन्द्रमा, हिमराशि और मती के हार की तरह धवल वर्ण की हैं और जो श्वेत वस्त्र धारण करती हैं, जिनके हाथ में वीणा-दण्ड शोभायमान है, जिन्होंने श्वेत कमलों पर आसन ग्रहण किया है तथा ब्रह्मा, विष्णु एवं शंकर आदि देवताओं द्वारा जो सदा पूजित हैं, वही सम्पूर्ण जड़ता और अज्ञान को दूर कर देने वाली माँ सरस्वती हमारी रक्षा करें ।

Meaning - Salutations to Devi Saraswati, Who is pure white like Jasmine, with the coolness of Moon, brightness of Snow and shine like the garland of Pearls; and Who is covered with pure white garments, Whose hands are adorned with Veena (a stringed musical instrument) and the boon-giving staff; and Who is seated on pure white Lotus, Who is always adored by Lord Brahma, Lord Acyuta (Lord Vishnu), Lord Shankara and other Devas, O Goddess Saraswati, please protect me and remove my ignorance completely.

PREAMBLE

The Handbook for students, distributed in two volumes (Volume I and Volume II), provides comprehensive information about the Institute of Pharmacy (IPNU) at Nirma University, along with detailed descriptions of the postgraduate M. Pharm. program.

Volume I of the Handbook encompasses general information about Nirma University. It outlines critical details about campus regulations, including student discipline and code of conduct guidelines. Additionally, it describes the academic infrastructure, teaching and learning processes, student-centric activities, and the general facilities and support services available to students on campus.

Volume II of the Handbook delves into the academic specifics of the Institute. It includes the Academic Rules and Regulations, encompassing the academic requirements and code of conduct policies for students at the University. This volume also provides essential information on registration procedures, the grading system, academic standards, attendance requirements, and disciplinary measures, along with various policies and necessary forms.

It is imperative for all students to familiarize themselves with the rules and regulations of both the Institute and the University. The University/Institute reserves the right to modify the rules and regulations outlined in the Handbook without prior notice. The University's decisions on all matters are final. For additional clarification, students are advised to contact the Student Section.

These Handbooks serve to inform students about the University and its programs and should not be considered as the University's Regulation book. Consequently, no claims can be made based on the information provided in these Handbooks.

Professor Dr Gopal Natesan

MPharm, PhD (India), MBA (Malaysia),

PG Cert Teaching & Learning (UK), FHEA (UK), SEFM, RPh (India)

Director, Institute of Pharmacy



DIRECTOR'S MESSAGE

Dear Students,

Welcome to the Master of Pharmacy (M.Pharm) programme at the Institute of Pharmacy, Nirma University. It is a pleasure to greet you as you begin this important phase of your academic and professional journey.

The M.Pharm programme is designed to equip you with advanced knowledge, skills, and competencies essential for excelling in the dynamic field of pharmacy. At Nirma University, we are committed to nurturing your potential through a rigorous curriculum, state-of-the-art facilities, and guidance from experienced faculty members.

Your learning will extend beyond classrooms and laboratories to include research projects, industrial training, and collaborative experiences that promote critical thinking, problem-solving, and professional growth. We encourage you to engage actively, uphold high standards of integrity, and embrace every opportunity to develop as competent and compassionate professionals.

I am confident that your dedication and commitment will lead you to success and enable you to contribute meaningfully to healthcare and society.

I warmly welcome you to the Institute of Pharmacy and wish you the very best in your studies and future career.

Professor Dr Gopal Natesan

Director, Institute of Pharmacy



INDEX

Description	Page No.
1. Section A: General Information	5
• About Institute of Pharmacy	6
• Vision and Mission	7
• Accreditation and Ranking	7
• Organization Chart of the Institute	8
• Important Contact Details at University level	8
• Important Contact Details at Institute of Pharmacy	9
• Networking Initiatives and Collaboration	10
• Industry partners/Recruiters	12
• International Relations Office	13
• Placement Cell	14
• Infrastructure and Amenities	15
• Industrial Training and Projects	16
• Salient Features of the Institute of Pharmacy	17
2. Section B: Student Centric Information	20
• About the Programme	21
• Programme Learning Outcomes	22
• Programme Specific Outcomes	23
• Components of Courses	25
• Examination	26
• Academic Calendar	28
• Programme Management Team	29
• Academic Faculty Contact Details	29
• Non-Academic Staff Contact Details	31
• Student Activities	32
• Other Activities	36
• Student Welfare Board at Nirma University	37
• Guidelines for showing the assessed answer books	38

3. Section C: Teaching and Examination Scheme	39
• Teaching and Examination Scheme (Semester wise)	40
4. Section D: Academic Rules and Examination Regulations	56
• Academic Rules and Regulations	57
• Categories of Courses	59
• Component of a Course	61
• Examination Scheme	61
• Attendance Requirement to Appear at Semester End Examination	63
• Grading in Examinations	65
• Academic Progression Rule	67
• Award of Degree	67
• Cancellation of Admission	68
5. Section E: M. Pharm. Course Details	69
• Details of the Course	70
6. Section F: Forms and Declarations	102
• Declaration and Undertakings	103
• Attendance Policy	111



SECTION A

General Information

ABOUT INSTITUTE OF PHARMACY

The Institute of Pharmacy was established in 2003 under the aegis of Nirma University with the vision of nurturing competent professionals in the field of pharmaceutical sciences. Over the past two decades, the Institute has experienced steady growth. It has emerged as one of the leading centres of pharmacy education in the country, offering a comprehensive spectrum of programmes at the undergraduate, postgraduate, doctoral, and postdoctoral levels. Its journey of academic development has been marked by continuous innovation, diversification of programmes, and significant milestones that reflect its commitment to excellence. Currently, the Institute offers a B. Pharm and Pharm. D., M. Pharm in four specializations (Pharmaceutics, Pharmacology, Pharmaceutical Analysis, and Regulatory Affairs), full-time and part-time Ph.D., and postdoctoral programmes.

The Institute has adopted Outcome-Based Education (OBE) to advance professional knowledge while simultaneously fostering employability skills, ethical responsibility, and character development. In alignment with the University's vision and mission, the Institute has clearly defined Programme Educational Objectives and Programme Outcomes, ensuring that the graduates are equipped with the competencies required to meet national and global challenges in the pharmaceutical sector.

Research and innovation are integral to the Institute's culture. It has received more than ₹ five crore in grants from government funding agencies and maintains strong collaborations with research centres and industries. To support advanced research and training, the Institute is equipped with state-of-the-art laboratories and high-end instruments, including supercritical fluid extractor and chromatogram, HPTLC, HPLC, MPLC, GC, Fluorescence and Raman Spectrometers, UV-VIS-NIR Spectrophotometer, FTIR, DSC, ELISA, PCR, electrophoresis units, texture analyzer, automated dissolution apparatus, extruder-spheronizer, multiple diffusion assembly, high-pressure homogenizer, particle size analyzer, E-Spin, microwave synthesizer, and stereotaxic apparatus with microdialysis. Additionally, advanced software such as Gold Suit, eCTD, Design Expert, ANY-maze, MyCalpharm, and Micromedex enhances both teaching and research activities. The Institute houses a BSL-II compliant Cell Culture Laboratory and a Class 100,000 Aseptic Laboratory, which support in vitro studies on primary and secondary cell lines. A machine room with pharmaceutical manufacturing and testing equipment, along with a CCSEA-registered two-storied animal house, provides additional support for experimental research. Complementing these facilities, the Institute maintains a medicinal plant garden, "Nirma Herbal Wealth," spanning 3,356.5 sqm and housing approximately 150 genera and 500 medicinal plant species.

VISION AND MISSION

VISION

Striving to excel in pharmaceutical education, research & innovation to develop outstanding professionals catering to the health care needs of the humankind.

MISSION

The institute aims to develop employable students, researchers and entrepreneurs by inculcating critical thinking, problem solving ability, ethical values and leadership skills. Institute provides vibrant environment for continuous learning by strengthening industrial collaboration for developing competent professionals.

ACCREDITATION AND RANKING

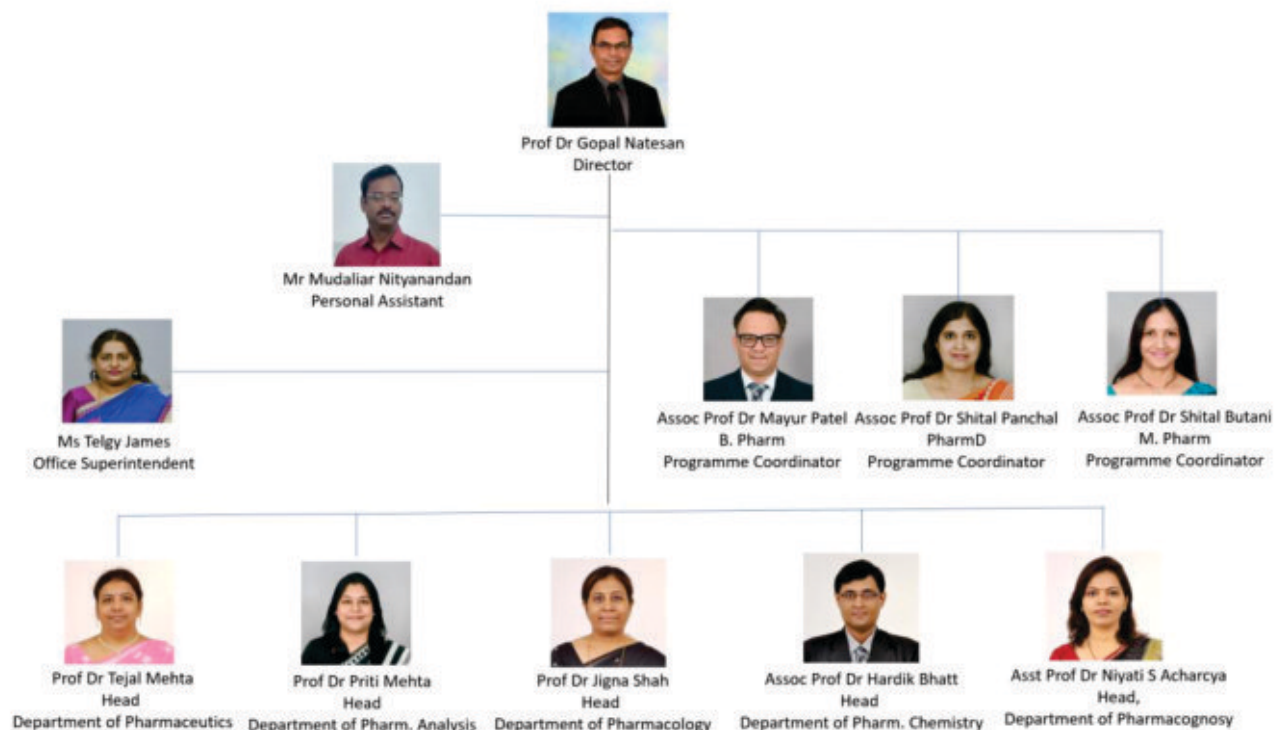
The Institute of Pharmacy, Nirma University is a constituent institutes undergo accreditation and ranking periodically, which stimulate the academic environment for promoting quality of teaching, learning, and research. This also encourages self-evaluation, accountability, autonomy, and innovations in higher education. The University is accredited with “A+” grade by National Assessment and Accreditation Council (NAAC) in its 3rd cycle.

Institute has been ranked 32nd in India Ranking 2025 by Ministry of Human Resource Development, (MHRD), Government of India, under the National Institutional Ranking Framework (NIRF). It has secured the First Rank among all pharmacy institutions in the state of Gujarat, receiving a Five-Star Rating in the Gujarat State Institutional Rating Framework (GSIRF) 2024, as assessed by the Knowledge Consortium of Gujarat, Department of Education, Government of Gujarat.

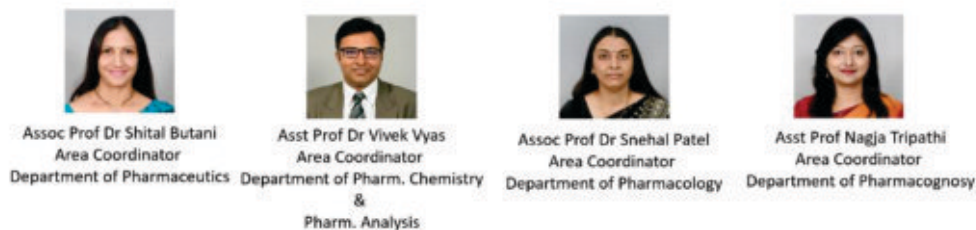
Additionally, the B. Pharm. programme has been re-accredited by the National Board of Accreditation (NBA) for a period of three years, starting from the academic year 2022–2023.



INSTITUTE OF PHARMACY - ORGANISATION CHART



AREA COORDINATORS



IMPORTANT CONTACT DETAILS AT UNIVERSITY LEVEL

S. No.	Programme Management Staff	Designation	Department	email id	Ext. No.
1	Dr Ravindra Sen	Deputy Registrar (Academic)	Academic	dy_registrar.nu@nirmauni.ac.in	681
2	Dr Nilesh Patel	Deputy Registrar (Examination)	Examination	dy_registrar.exam@nirmauni.ac.in	698
3	Dr Bhavesh Parekh	Students Welfare Board	Student Welfare	studentwelfare@nirmauni.ac.in	312

IMPORTANT CONTACT DETAILS AT INSTITUTE OF PHARMACY

S. No.	Programme Management Staff	Designation	Department	email id	Ext. No.
1	Ms Telgy James	Office Superintendent	Administrative Office	os.ip@nirmauni.ac.in	714
2	Ms Pooja Pandey	Student Section	Administrative Office	sts.ip@nirmauni.ac.in	715
3	Mr Hashmukh Rathod	Examination Section	Administrative Office	hasmukh.rathod@nirmauni.ac.in	715
4	Ms Jigisha Patel	Student Section	Administrative Office	sts.ip@nirmauni.ac.in	715
5	Mr Mudaliar Nityanandan	Personal Assistant to Director	Administrative Office	nityanandan@nirmauni.ac.in	713
6	Dr Anshu Shrivastava	Assistant Professor	Cultural Coordinator, IPNU	anshu.srivastava@nirmauni.ac.in	-
7	Dr Richa Gupta	Assistant Professor	Cultural Coordinator, IPNU	richa.gupta@nirmauni.ac.in	718
7	Dr Vanrajsinh Thakor	Assistant Professor	Sports Coordinator, IPNU	vanrajsinh.thakor@nirmauni.ac.in	725
8	Dr. Tejas Dhameliya	Assistant Professor	NSS Coordinator, IPNU	tejasm.dhameliya@nirmauni.ac.in	729
9	Dr Udit Chaube	Assistant Professor	Attendance Coordinator	udit.chaube@nirmauni.ac.in	718



NETWORKING INITIATIVES AND COLLABORATIONS

Memoranda of Understanding (MoUs) create seamless opportunities for collaboration and interaction between the Institute of Pharmacy, Nirma University and other entities. These agreements facilitate the exchange of ideas, resources and expertise, fostering mutual growth and innovation. By establishing formal partnerships with reputed universities and organizations both nationally and internationally, MoUs encourage joint research projects, academic exchange and collaborative educational programs. Partnering with diverse institutions broadens the Institute's access to knowledge, resources and technological advancements, enriching the academic and research environment for students and faculty. Collaborative efforts under MoUs lead to significant advancements in pharmaceutical research, including the development of new drugs, innovative therapies and improved healthcare solutions. Additionally, these partnerships offer professional development opportunities through workshops, seminars, and conferences, keeping the Institute's members current with the latest trends in pharmacy. MoUs with industry leaders provide internships, training programs, and job placements for students, effectively bridging the gap between academia and industry requirements. The Institute's various MoUs with universities and organizations both within India and globally reflect its commitment to fostering an environment of excellence and innovation through strategic collaborations.

MoU with Foreign Universities/Organizations

- Binghamton University, New York, USA
- Massachusetts College of Pharmacy and Health Science - MCPHS University, Boston, USA
- University of Southern California, USA
- University of Turin, Torino, Italy
- Universiti Teknologi MARA, Malaysia
- Changwon National University, South Korea
- Plovdiv University, Bulgaria
- Tirupati USA, LP.
- MIT – 45 Inc, USA

MoU with Hospitals /Research Organizations

- Physical Research Laboratory (PRL), Ahmedabad
- Space Application Centre (ISRO), Ahmedabad
- Apollo Hospitals International Ltd, Ahmedabad
- KD Hospital, Ahmedabad
- SGVP Holistic Hospital, Ahmedabad
- EPIC Hospital, Ahmedabad
- Operant Pharmacy Federation, Pali, Rajasthan

MoU with Industries

- Cadila Pharmaceutical Research Centre, Ahmedabad
- Intas Pharmaceuticals Ltd., Ahmedabad
- Amanta Healthcare Ltd., Ahmedabad
- Finecure Pharmaceuticals Ltd., Ahmedabad
- Piramal Drug Development Services Ltd, Ahmedabad
- Novo Bliss Research Private Ltd., Ahmedabad
- West Coast Pharmaceutical Works Ltd., Ahmedabad
- Lexcru Water Industries Pvt. Ltd., Ahmedabad
- Evonik Pharma, Ahmedabad
- Sushen Medicaments, Ahmedabad
- PharmaLab India Pvt. Ltd., Ahmedabad
- BioDev Services Pvt. Ltd., Ahmedabad



INDUSTRY PARTNERS / RECRUITERS

Institute of Pharmacy is honored to engage in collaborations with prominent organizations in the pharmaceutical healthcare and related sectors. Our valued industry partners significantly enhance our research, internships, and overall educational experience, driving innovation in the field.

- Alembic Pharmaceuticals Ltd
- GSK Pharmaceuticals
- Amneal Pharmaceuticals
- Zydus Lifescience Ltd
- Macleods Pharmaceuticals Ltd
- Dr Reddy's Laboratories
- Sun Pharmaceuticals Ltd
- Finecure Pharmaceuticals Ltd
- Intas Pharmaceuticals Ltd
- Troikaa Pharmaceuticals Ltd
- Torrent Pharmaceuticals Ltd
- Lupin Research Centre
- Novartis India Ltd
- Piramal Healthcare Ltd
- APCER Lifesciences

- BioQuest Pharmaceuticals
- Emcure Pharmaceuticals Ltd
- HOF Pharmaceuticals Ltd
- Indegene Ltd
- Biocon Ltd
- Lambda Therapeutics Research
- Meteoric Biopharmaceuticals Ltd
- Molkem Chemicals Pvt. Ltd.
- Nestle India Ltd.
- Shaip
- Stivaph Healthcare Pvt Ltd
- Syngene International
- Sushen Medicamentos Pvt Ltd
- Nivea India
- Genpact



INTERNATIONAL RELATIONS OFFICE

International Collaborations

With advancements in communication technologies, affordable travel, and changing mindsets, globalization has significantly increased over the last decade. Universities can leverage this trend for mutual benefits through strategic partnerships. Collaborations with multinational companies also facilitate practical research, employment opportunities, and social engagement. The International Relations Office at Nirma University is dedicated to planning and executing global collaborations to enhance the quality of education, aligning with the dynamics of 21st-century learning for our students.

This includes establishing strategic partnerships with leading universities and research institutions worldwide to foster academic and research excellence, facilitating exchange programs that offer students and faculty international exposure, cultural exchange, and diverse academic experiences, and collaborating on joint research projects with international partners to address global challenges and advance knowledge in various fields. Additionally, partnering with multinational companies provides students with international internships and employment opportunities, enhancing their global employability. The Office also focuses on organizing and participating in international workshops, seminars, and conferences to stay abreast of global trends and innovations in education and research, sharing technological resources and expertise with international partners to enhance research capabilities and educational resources, and collaborating with international accrediting bodies to ensure that the educational standards meet global benchmarks.

International Students Affairs

The International Relations Office supports international students, faculty, and scholars in achieving their academic, personal, and professional goals. It provides guidance on visa processes, academic integration, and cultural adjustment, while also organizing orientation programmes, cultural events, and social activities to foster inclusivity within the campus community.

In collaboration with academic departments, the Office offers tailored academic support, including language assistance, tutoring, and mentoring, ensuring that international students thrive in their studies. It also facilitates global networking through a strong alumni network, creating valuable career and collaboration opportunities worldwide.

By promoting cross-cultural engagement and global connections, the International Relations Office plays a vital role in advancing the internationalization of Nirma University and enriching the educational experience for all members of the community.

PLACEMENT CELL

The Placement Cell at Nirma University is dedicated to fostering strong, mutually beneficial relationships between industry and academia. By maintaining close ties with pharmaceutical industries, contract research organizations, and state and national R&D organizations, the Placement Cell aims to bridge the gap between industry needs and the academic output of the institute. This engagement not only enhances student placements and training but also contributes to curriculum improvement.

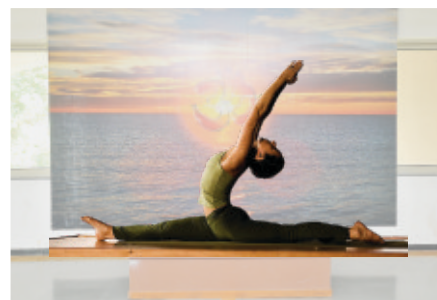
Each Institute within Nirma University has its own Placement Cell, managed by a dedicated Corporate Relations Manager. This team is supported by faculty placement coordinators and student coordinators, working under the guidance of the Director and in collaboration with departmental heads. The Placement Cell facilitates various activities, including student visits to industries, industrial training, project placements and campus interviews. The Placement Cell is dedicated to ensuring a seamless transition from academia to industry for students. To achieve this, Institute conducts training programs aimed at enhancing students' soft skills, technical abilities, and overall employability. Furthermore, mock interviews are conducted to prepare students for real-world recruitment processes.



INFRASTRUCTURE AND AMENITIES

The placement cell is fully equipped with all modern amenities. The rooms are air-conditioned and equipped with multimedia and audio-visual equipment to facilitate effective interaction. Additionally, the following facilities are also available on campus:

- Dedicated access to Computer Lab for conducting online tests
- Air-conditioned halls for presentations
- Conference Rooms
- Interview Rooms
- Skype/Video Conferencing
- Internet/Wi-Fi access
- Guest House for Corporate Visitors
- Food Court
- ATM Facilities
- Health Club and Gym
- Health Care Centre
- Book Store
- Canteen
- Art Gallery
- Cricket Ground



INDUSTRIAL TRAINING AND PROJECTS

- The Placement Cell plays a pivotal role in securing industry training and project opportunities for students during the summer vacation. These experiences are crucial for their professional development and growth.
- Industrial training is an integral component of the curriculum, designed to prepare students for real-world challenges. Depending on the program requirements, undergraduate and postgraduate students are placed in various industries for periods ranging from 4 to 24 weeks. During this time, they work under the supervision and guidance of industry professionals, with regular monitoring and evaluation conducted by the placement team.
- By integrating these elements, we ensure that our students are well-equipped with the skills and experience needed to thrive in their professional careers.



SALIENT FEATURES OF THE INSTITUTE OF PHARMACY, NIRMA UNIVERSITY

Over the years, the Institute of Pharmacy at Nirma University has established itself as a premier institution, achieving excellence in various domains. Here's a detailed look at its salient features:

State-of-the-Art Infrastructure

Imagine stepping into a laboratory that feels like a high-tech playground. The Institute boasts well-equipped labs with the latest instruments and technology, ensuring students can conduct experiments and research with precision. The advanced research centres are hubs for innovation, where ground breaking discoveries are made. Additionally, the specialized classrooms are designed to enhance learning experiences with modern amenities like smart boards and interactive setups.

Expert Faculty

Think of the faculty as a team of superheroes in the field of pharmacy. Each member is highly qualified, often with advanced degrees from prestigious institutions. They have received awards and patents for their contributions to science, ensuring they bring the latest knowledge to the classroom. Their publications in reputed journals signify their active involvement in cutting-edge research, providing students with insights from the frontlines of the industry.

Cutting-edge Research Opportunities

Imagine being part of a detective team solving mysteries of diseases and drug interactions. The Institute encourages interdisciplinary projects, allowing students to work at the intersection of various fields like chemistry, biology, and engineering. Collaborations with the industry and publications in reputed journals ensure that students contribute to real-world advancements and stay abreast of the latest developments.

Industry Programs

Picture a bridge that connects the classroom to the corporate world. Through workshops, seminars, and networking events, students gain practical exposure, learning directly from industry experts. These programs are designed to enhance career development, ensuring students are industry-ready by the time they graduate.

Placement and Internship Support

Think of this feature as a launchpad for careers. The Institute has a dedicated placement and internship support team that works tirelessly to connect students with top pharmaceutical

companies. With strong industry ties, students have numerous opportunities to secure internships and placements, ensuring a smooth transition from academic life to professional careers.

Entrepreneurship Support

Imagine a greenhouse nurturing young plants into flourishing trees. The Institute fosters a culture of innovation and enterprise, encouraging students to explore entrepreneurship. Through incubation support and start-up initiatives, students receive guidance and resources to turn their innovative ideas into successful businesses.

Global Collaborations

Envision a global classroom without walls. The Institute has partnerships with renowned international universities and research institutions, offering students opportunities for global exposure. Through exchange programs and collaborative research, students can broaden their horizons and gain diverse perspectives.

Institute Advisory Committee

Think of this committee as a council of wise mentors. It comprises eminent personalities from academia and industry who guide the Institute's practices. They monitor and steer teaching-learning practices, research initiatives, and consultancy projects, ensuring the Institute remains at the forefront of academic excellence.

Interactive Learning

Imagine a classroom where learning feels like a fun, interactive game. The Institute utilizes modern tools, web resources, and Wi-Fi to create an engaging learning environment. This fosters active engagement and knowledge retention, making education more effective and enjoyable.

Mentoring and Guidance

Think of this as having a personal coach for your academic and personal development. Students receive constant mentoring on a one-to-one basis, focusing on career guidance, personal development, and motivation. This ensures that each student receives tailored support to achieve their full potential.

Communication and Exam Coaching

Picture a boot camp for communication skills and competitive exams. The Institute provides skills training and preparation for exams like GPAT, TOEFL, GRE, etc. This enhances students' overall employability and academic achievements, equipping them with the tools needed to excel in their careers.

Library Services

Imagine a treasure trove of knowledge at your fingertips. The Institute boasts an excellent, fully automated library with over 9990 volumes of books, 98 e-journals, and 23 print periodicals. With remote log-in facilities, students can access databases and reference materials from anywhere, supporting their academic and research needs.

Industry Exposure

Think of this as a sneak peek into the professional world. Through summer training and industry visits, students gain real-world insights and practical experience. This exposure is invaluable in understanding industry dynamics and applying theoretical knowledge to practical scenarios.

Campus Facilities

Picture a campus that feels like a small, self-sufficient town. The Institute offers transportation, a modern canteen, medical services, banking, and an in-house doctor with ambulance services. These facilities ensure that students have a comfortable and supportive environment for their studies.

Support for Needy Students

Imagine a library that lends not just books but also a helping hand. The book bank facility ensures that all students have equitable access to necessary study materials, supporting those in need.

Anti-Ragging Policy

Think of a safe haven where learning is the primary focus. The Institute has a strict anti-ragging policy, ensuring a safe and respectful learning environment for all students.

Recreational Facilities

Picture a campus where students can unwind and stay fit. With playgrounds, indoor games, and a gymnasium, the Institute encourages physical activities and overall well-being, ensuring students have a balanced lifestyle.

These features collectively make the Institute of Pharmacy at Nirma University a nurturing ground for future leaders in the field of pharmacy, combining academic rigor with practical experience and personal development.

SECTION B

Student Centric Information

ABOUT THE PROGRAMME

The Master of Pharmacy (M.Pharm.) programme at the Institute of Pharmacy, Nirma University is a two-year, four-semester postgraduate course that blends academic rigor with practical training in pharmaceutical sciences. The programme is designed to impart advanced knowledge, research skills, and industry-oriented competencies aligned with the evolving needs of healthcare and the pharmaceutical sector.

A distinctive feature of the curriculum is a three-month industry internship after the second semester, which provides hands-on exposure to real-world practices and bridges the gap between classroom learning and professional application.

Structured around the Outcome-Based Education (OBE) model, the programme emphasizes technical expertise along with communication, ethical responsibility, and understanding of healthcare systems. It nurtures critical thinking, professional identity, and lifelong learning—qualities essential for leadership in pharmacy.

Beyond academics, holistic development is supported through soft-skills training, workshops, and seminars on resume writing, interview preparation, and group discussions. Mock interviews and professional development sessions further enhance adaptability, workplace etiquette, and collaborative skills.

The Institute offers strong placement support, engaging actively with pharmaceutical and healthcare companies for on-campus recruitment drives. An active alumni network contributes to mentoring, knowledge sharing, and career opportunities.

Overall, the M.Pharm. programme at Nirma University integrates academic excellence with real-world readiness, preparing students to become competent, ethical, and industry-ready pharmacy professionals.



PROGRAMME LEARNING OUTCOMES

No. Programme Outcomes

- PO1 Pharmacy Knowledge:** Possess comprehensive and core knowledge associated with the profession of pharmaceutical sciences; behavioral, social, administrative pharmacy sciences; and clinical pharmacy and biomedical literature, drug action and patient centered care.
- PO2 Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills in drug information services, pharmacovigilance and therapeutic drug monitoring.
- PO3 Problem analysis:** Utilize observational, analytical and critical thinking skills to solve the real-world problems based on evidences and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make responsible decisions related to pharmaceutical care.
- PO4 Modern tool usage:** Acquire and apply digital technologies and resources with an understanding of the strength and limitations in the field of pharmacy practice and health care sciences.
- PO5 Leadership skills:** Initiate and empower team building and inter-professional team based care to fulfill professional and societal needs when appropriate to facilitate improvement in health and well-being.
- PO6 Professional Identity:** Understand, analyze and communicate the altruism, integrity, trustworthiness, flexibility and respect of their professional roles in society (e.g., health care professionals, promoters of health, educators, managers, employers, employees).
- PO7 Pharmaceutical Ethics:** Uphold highest standards of ethical and legal codes of practice as per laws and regulations governing the profession while making decisions and taking responsibility for the outcomes associated with the decisions.
- PO8 Communication:** Communicate effectively and empathetically with the pharmacy community, patients, healthcare professionals and with society at large.
- PO9 The Pharmacist and society:** Develop and implement epidemiological and pharmaco-economic studies to facilitate evidence-based approaches for treatment and societal health and wellness.
- PO10 Environment and sustainability:** Ability to develop sustainable solutions in health care, societal and environment context.
- PO11 Life-long learning:** Recognize the need for self-reflective, self-critical willingness for continuous personal and professional improvement through independent and life-long learning in the broadest context to drug therapy management and interpretation of data using relevant approaches.

PROGRAM SPECIFIC OUTCOMES

Pharmaceutics

- PSO1 Formulation Development and Drug Delivery:** Apply in-depth knowledge in the field of Preformulation, formulation design, stability testing using concept of Molecular Pharmaceutics, Biopharmaceutics and Pharmacokinetics for carrying independent research.
- PSO2 Optimization skills and technical training:** Ability to systematically evaluate various drug delivery and data analysis using modern tools, software and technical training.
- PSO3 Regulatory Compliance:** Design and develop product filing as per various statutory/regulatory requirements.

Pharmacology

- PSO1 Preclinical Skills:** Translate the acquired expertise in pre-clinical pharmacology for drug discovery and development by applying principles of genomics, proteomics and bioinformatics in the core and allied fields of pharmaceutical sciences.
- PSO2 Clinical Competence:** Apply knowledge of clinical research in designing, monitoring, auditing, and documentation of clinical trials, medical writing, and post-marketing surveillance for accountable healthcare.
- PSO3 Regulatory Expertise:** Appreciate laws and guidelines pertaining to preclinical safety and efficacy pharmacology, toxicity testing, clinical trials, pharmacovigilance for regulatory approvals.

Pharmaceutical Analysis

- PSO1 Quality Assuring /Qualitative Documentation Practice:** Empower the understanding on the importance of documentation in pharmaceutical industry and encourage to practice it in routine.
- PSO2 Excellence in Advance Instrumentation Training:** Acquire in-depth knowledge of spectral data interpretation and hands on training on various modern sophisticated instruments to competitive in pharmaceutical industries.
- PSO3 Innovations Leading Analytical Skills:** Sharpen the analytical and bioanalytical method development skills to bring out innovative ideas and novel approaches.

Regulatory Affairs

- PSO1 Regulatory Professional Skill:** Develop strong skills through exposure to significant regulatory guidelines, projects and case studies during which they translate their knowledge into practice.
- PSO2 Good Regulatory Practices:** Empower understanding of manufacturing, laboratory and clinical practices in healthcare system including regulations and submission process.
- PSO3 Technical Empowerment:** Demonstrate technical enhancement for use of software in global regulatory submissions, database management and use of various resources for preparation of documents as per regulatory requirements including audits and inspections, audit trails, data integrity, query response.



COMPONENTS OF COURSES

The academic schedule of the courses may consist of one or more of the following components with their respective scope as described.

Lecture

Teaching learning sessions conducted through real and virtual classrooms with various multimedia aids and other forms of students learning engagements as per requirement of the course and approved by the Dean.

Practical Work (PW)

Supplementary to classroom teaching and professional preparation as per Practical Work Policy of the Institute and as amended from time to time.

Industrial Training

Industrial training is a phase of training wherein a student is expected to undergo training in pharmaceutical industry and acquire skills under the expert supervision to understand the functioning of pharmaceutical industry.

Project work

The M. Pharm programme includes a project work component designed to enhance students' skills in research, data collection and reporting. This project is conducted under the supervision of a faculty member and must be approved by the Head of the Department or Head of the Institution.

Upon completion, the project is presented as both a written report and a presentation at the end of the fourth semester. Assessment is conducted by both external and internal examiners. The project work encompasses defining the objectives, employing appropriate methodologies, analysing results, engaging in discussions and drawing conclusions. This comprehensive approach ensures students gain practical research experience and develop critical analytical skills essential for their professional growth.

EXAMINATION

The examination framework for the M.Pharm programme is designed to foster systematic learning, continuous engagement, and comprehensive skill development throughout the course of study. The evaluation system is semester-based, ensuring regular assessment and timely feedback to students.

Continuous Assessment

Each semester incorporates Continuous Evaluation (CE) through sessional tests, assignments, seminars, and laboratory/practical work (LPW). Students are expected to maintain regular attendance, complete assignments on time, and perform practical work to the prescribed standards.

Semester Examinations

Every academic year is divided into two semesters. At the end of each semester, a Semester-End Examination (SEE) is conducted, which includes both written and practical components. In addition, supplementary examinations are organized after the regular semester examinations for students who are unable to secure the minimum passing marks.

Marks and Passing Criteria:

- The maximum marks allocated for each theory and practical course are as prescribed in the Teaching and Examination Scheme.
- To pass, a student must secure at least 50% marks separately in theory (inclusive of sessional marks) and 50% marks in practical examinations (inclusive of sessional marks).
- A student obtaining an 'F' grade in any course during the semester will be eligible to appear for the Supplementary Examination (SPE) which will be conducted generally after 15 days from the date of result declaration of SEE and will be for only those courses that are offered in that semester.

Comprehensive Evaluation

The Semester-End Examination (SEE) covers the entire syllabus prescribed for that semester, ensuring both depth and breadth of knowledge acquisition. Continuous and supplementary assessments together ensure that students demonstrate consistent academic performance throughout the programme.

Regulations and Guidelines

Detailed information regarding grading patterns, passing standards, re-examinations, and related academic procedures is provided in the Academic Rules and Regulations section of the M. Pharm programme handbook.



INSTITUTE OF PHARMACY, NIRMA UNIVERSITY

ACADEMIC CALENDAR**ACADEMIC YEAR 2025-26****M.Pharm Sem I**

Semester Commencement	29-09-2025
Teaching Starts	29-09-2025
Diwali Vacation	18-10-2025 to 26-10-2025
Sessional Examination - I (Theory & Practical)	01-12-2025 to 06-12-2025
Semester Ends	14-02-2026
Semester End Examination (SEE)	16-02-2026 to 19-02-2026
Final Lab (LPW) Examinations	20-02-2026
Commencement of Next Semester	23-02-2026

Event

Foundation Day	01-10-2025
----------------	------------

Holidays

Independence Day	15 August 2025 (Friday)
Rakshabandhan	09 August 2025 (2nd Saturday)
Janmashtami	16 August 2025 (3rd Saturday)
Samvatsari / Ganesh Chaturthi	27 August 2025 (Wednesday)
Mahatma Gandhi's Jayanti	02 October 2025 (Thursday)
Dussehra (Vijya Dashmi)	02 October 2025 (Thursday)
Guru Nanak's Jayanti	05 November 2025 (Wednesday)
Christmas	25 December 2025 (Thursday)

PROGRAMME MANAGEMENT TEAM

Key-Persons Number	Name	E-mail ID	Extension
Programme Coordinator	Dr. Shital Panchal	shital.panchal@nirmauni.ac.in	728
Office Superintendent	Ms. Telgy James	os.ip@nirmauni.ac.in	714
Student Section In-charge	Dr. Mayur Patel	mayurpatel@nirmauni.ac.in	727
Institute Examination In-charge	Dr. Niyati Acharya	niyati.acharya@nirmauni.ac.in	721

ACADEMIC FACULTY CONTACT DETAILS

Sr. No.	Name	Designation	Extension	Email ID
DEPARTMENT OF PHARMACEUTICAL CHEMISTRY				
1	Dr. Gopal Natesan	Director & Professor	712	director.ip@nirmauni.ac.in
2	Dr. Hardik Bhatt	Associate Professor	727	hardikbhatt23@nirmauni.ac.in
3	Dr. Vivek Vyas	Assistant Professor	717	vivekvyas@nirmauni.ac.in
4	Dr. Bhumika Patel	Assistant Professor	725	bhumika.patel@nirmauni.ac.in
5	Dr. Udit Chaube	Assistant Professor	718	udit.chaube@nirmauni.ac.in
6	Dr. Tejas M. Dhameliya	Assistant Professor	729	tejasm.dhameliya@nirmauni.ac.in
7	Dr . Vanrajsinh Thakore	Assistant Professor	726	vanrajsinh.thakor@nirmauni.ac.in
DEPARTMENT OF PHARMACEUTICS				
1	Dr. Tejal Mehta	Professor	716	tejal.shah@nirmauni.ac.in
2	Dr. Mayur Patel	Associate Professor	727	mayurpatel@nirmauni.ac.in
3	Dr. Shital Butani	Associate Professor	728	shital.butani@nirmauni.ac.in
4	Dr. Jigar Shah	Assistant Professor	721	jigar.shah@nirmauni.ac.in
5	Dr. Dhaivat Parikh	Assistant Professor	718	dhaivat.parikh@nirmauni.ac.in

6	Dr. Mohit Shah	Assistant Professor	718	mohit.shah@nirmauni.ac.in
7	Dr. Shruti Raval	Assistant Professor	721	shruti.rawal@nirmauni.ac.in
8	Dr. Anshu Srivastava	Lecturer	---	anshu.srivastava@nirmauni.ac.in
DEPARTMENT OF PHARMACOLOGY				
1	Dr. Jigna Shah	Professor	716	jigna.shah@nirmauni.ac.in
2	Dr. Snehal Patel	Associate Professor	726	snehal.patel@nirmauni.ac.in
3	Dr. Bhagawati Saxena	Assistant Professor	729	bhagawati.saxena@nirmauni.ac.in
4	Dr. Richa Gupta	Assistant Professor	718	richa.gupta@nirmauni.ac.in
DEPARTMENT OF PHARMACEUTICAL ANALYSIS				
1	Dr. Priti Mehta	Professor	724	drpritimehta@nirmauni.ac.in
2	Dr. Charmy Kothari	Associate Professor	722	charmy.kothari@nirmauni.ac.in
3	Dr. Nrupesh Patel	Assistant Professor	725	nrupesh.patel@nirmauni.ac.in
4	Dr. Misari Patel	Assistant Professor	721	misari.patel@nirmauni.ac.in
DEPARTMENT OF PHARMACONOSY				
1	Dr. Niyati Acharya	Assistant Professor	721	niyati.acharya@nirmauni.ac.in
2	Dr. Nagja Tripathi	Assistant Professor	729	nagja.tripathi@nirmauni.ac.in
3	Dr. Dipal Gandhi	Assistant Professor	718	dipspharma@nirmauni.ac.in
DEPARTMENT OF PHARMACY PRACTICE				
1	Dr. Shital Panchal	Associate Professor	728	shital.panchal@nirmauni.ac.in
2	Dr Sagar Pamu	Associate Professor	-	---
3	Dr. Anjali Menon	Assistant Professor	729	anjali.menon@nirmauni.ac.in
4	Dr. Kunal Maheshwari	Visiting Faculty	-	Kunal.maheshwari_vfr@nirmauni.ac.in

NON-ACADEMIC STAFF CONTACT DETAILS

No	Name	Extension	Email ID
ADMINISTRATIVE STAFF			
1	Ms. Telgy James Jr. Office Superintendent	714	os.ip@nirmauni.ac.in
2	Mr. Nityanandan Mudaliar Personal Assistant to Director	713	nityanandan@nirmauni.ac.in
3	Mr. Devendra J. Vaghela Sr. Assistant	715	devenvaghela@nirmauni.ac.in
4	Mr. Hasmukh B. Rathod Sr. Assistant	715	hasmukh.rathod@nirmauni.ac.in
5	Ms. Pooja P. Pandey Sr. Assistant	715	ppooja@nirmauni.ac.in
6	Ms. Jigisha D. Patel Sr. Assistant	715	jigisha.patel@nirmauni.ac.in
7	Ms. Dharmi M. Shah Computer Operator	-	dharmi.shah@nirmauni.ac.in
9	Ms. Mrugani Surati Manager Corporate Relations	730	mrugani.surati@nirmauni.ac.in
LABORATORY STAFF			
12	Mr. Rohit Patel	-	rohitpatel@nirmauni.ac.in
13	Mr. Shailesh Patel	-	shaileshpatel@nirmauni.ac.in
14	Mr. Mukesh Patel	-	mukeshpatel@nirmauni.ac.in
15	Mr. Jignesh H. Patel	-	jigneshpatel@nirmauni.ac.in
16	Ms. Dhartiben M. Patel	-	dhartipatel@nirmauni.ac.in
17	Ms. Drashti Patel	-	drashti.patel@nirmauni.ac.in
18	Mr. Chetan Patel	-	chetan.patel@nirmauni.ac.in
19	Ms. Hiral Patel	-	hiral.patel@nirmauni.ac.in
20	Ms. Kalpana C. Patel	-	patel.kalpana@nirmauni.ac.in
21	Mr Sujitkumar	-	sujeet.kumar@nirmauni.ac.in

STUDENT ACTIVITIES

Orientation Programme

The Institute organizes a unique orientation programme of about one week for all new entrants in order to enhance familiarity, and to acclimatize the freshers to the academic and social environment of the campus. Various lectures on Prospects of Pharmacy Education, Time Management, Stress Management, Human Relations, Positive Attitude, Communication Skills, etc. are delivered by eminent speakers to the students. This programme enables the students and faculty to interact and understand each other. It also provides smooth transition from school life to a new environment of professional studies.

Co-curricular Activities

The Institute gives due importance to projects, industrial visits and training during academic breaks to support curricular work of the students. The students are motivated to present seminars on latest developments in the field of pharmaceutical sciences, which helps to enhance their library reading, scientific writing and presentation skills. The students have participated at various National and State Level competitions and have also won awards. The Institute also regularly organizes a National level Quiz "NIRMAQUEST". Extensive participation is received from institutions of the state as such a competition provides the students a platform to bring out their communication skills and general, factual and scientific knowledge. The Various carrier guidance seminars been regularly been organized for the students through the series of seminars. The students were encouraged to participate in the various co-curricular activities outside the campus also. Various industry visits used to be planned for the students for exploring them in the industry world.



Extra-Curricular Activities

The Institute organizes every year cultural festival "ROSTRUM", which are competitions of various events like drama, skits, dances, songs & pinnacle, where the students demonstrate their skills and the budding artists show their talents. "EUPHORIA" is a dedicated program conducted for first year students to provide a platform to new students for participation in various extra-curricular activities. Sports events are also regularly organized every year. Celebrations of Independence Day and Republic Day are also organized. Pharmacist day Celebration, Foundation Day & Teachers Day celebration are other events which are routinely planned at the institute level. Inter-institute competitions are also being organized and students of Institute of Pharmacy participate in NUZEAL and one act play competition at University level. Students are also participating in various competitions outside Nirma University such as the west zone level youth festival organized by AIU in drama, music, art and craft and literary events.

Sports

At the Institute of Pharmacy, Nirma University, we prioritize the all-round development of students by promoting physical fitness and fostering qualities such as leadership, teamwork, and sportsmanship through a variety of athletic and non-athletic activities. Throughout the year, students have the opportunity to participate in numerous sports competitions, which include:

- Running Events: 100m, 200m, 400m, 800m, and 1500m races.
- Throwing Events: Shotput, discus throw, and javelin throw.
- Jumping Events: Long jump and triple jump.
- Indoor Games: Chess, carrom, and table tennis.
- Racquet Sports: Lawn tennis and badminton.
- Traditional Indian Sports: Kabaddi and kho-kho.
- Team Sports: Cricket, basketball, football, and volleyball.



These activities are designed not only to enhance physical fitness but also to inculcate a sense of camaraderie and competitive spirit among students. By participating in these diverse sports, students develop essential life skills that complement their academic achievements, contributing to their holistic growth and preparation for future challenges. Student Welfare Board of Nirma University organises annual sports competition and Winners are encouraged to participate in Inter-University sports tournaments and youth festivals. Additionally, some adventure activities like mountaineering camps at Himalaya, Desert Adventure Camp, etc. are also organised.

Extension Activities

Institute of Pharmacy, Nirma University aims at developing not only good professionals but also making socially responsible individuals. The social extension activities make the students aware of societal needs and through this the students are actively involved in different activities such as cleanliness drive, plantation drive, old age home visit, etc. To create awareness among the students, the Institute also organises expert lectures and field visits related to this area.

The National Service Scheme (NSS) is an Indian government-sponsored public service programme conducted by the Ministry of Youth Affairs and Sports. Institute of Pharmacy has vibrant NSS team members who regularly contribute to the well-being of Jaspur village, adopted by the institute. There are two types of activities: Regular Activities [running throughout the year] and Annual Special Camp [one-week residential camp]. All the NSS volunteers who have served NSS for at least two years and performed 240 hours of work under the NSS programme are entitled to a certificate from the university.



Alumni Activities

Institute fosters robust networking with alumni through a diverse array of initiatives. These include engaging alumni as guest speakers, visiting faculty, members of the Institutional Quality Assurance Cell (IQAC-I), and members in the Board of Studies. Moreover, alumni are invited to share their expertise and insights with current students through technical talks and career guidance sessions, enhancing the students' access to valuable knowledge and professional connections. Our alumni members residing abroad actively contribute by conducting online webinars. Additionally, Institute hosts regular events such as the annual alumni meet and sector-specific networking gatherings. These occasions provide an invaluable platform for final year students to interact with alumni, facilitating meaningful connections and enhancing career prospects.

NIRMA INSTITUTE OF PHARMACY STUDENTS' ASSOCIATION (NIPSA)

Nirma Institute of Pharmacy Students' Association (NIPSA) empower students to organize co-curricular & extra-curricular programmes, guest lectures, and talent events independently which develops team work, managerial and leadership skills in the students. Various Clubs like Entrepreneurship Club, Design Club, Literature Club, Drama Club, Photography Club, etc. provide overall development of the students of the Institute.



OTHER ACTIVITIES

Nirma Quest

Nirma Quest, an annual state-level quiz competition for pharmacy and other disciplines is organized by the Institute of Pharmacy at Nirma University. The competition features various rounds, including passable questions, non-passable questions, and rapid-fire questions, culminating in buzzer rounds for audio, video, pictogram, and mega memory in the final round. This results in a captivating competition, with winners receiving certificates and cash prizes.

Ramzat

Ras-Garba is organized after Navratri festival. All students, staff members, faculty members, HODs and HOIs of constituent institutes of Nirma University and officers of the University join this festival. The winners in different categories are awarded trophies.

Celebration of National Days

On the occasion of Independence Day, the University organises the flag hoisting ceremony at its campus. Renowned dignitaries from the various walks of life are invited as the Chief Guest for the occasion. A patriotic song competition is conducted on this occasion as a mark of respect for our freedom fighters. On the occasion of the Republic Day, the University conducts an array of events, including the flag hoisting ceremony where dignitaries are invited as the Chief Guest, plus an exhibition of photographs shot by university students is opened for all, to name a few.

International Day of Yoga

The United Nations General Assembly declared 21st June as International Day of Yoga. To mark the occasion, the Government of India celebrates this day in a befitting manner all over the country. In the same vein, the University celebrates International Day of Yoga in its campus every year. All University officers, teaching and non-teaching staff, perform yoga under a trainer in the morning.



STUDENTS' WELFARE BOARD AT NIRMA UNIVERSITY

At the Nirma University, the Students' Welfare Board (SWB) is dedicated to fostering the social, cultural, and spiritual growth of students through a variety of activities throughout the year. These initiatives are designed to promote holistic development and ensure a vibrant campus life.

The annual sports competitions include a wide range of events such as cricket, football, volleyball, basketball, kho-kho, kabaddi, lawn tennis, badminton, table tennis, carom, chess, and athletics. These competitions are held at both the institute and inter-institute levels, encouraging students to engage in physical activities and develop team spirit. Additionally, adventure activities like mountaineering camps in the Himalayas and desert adventure camps are organized periodically to instill a sense of adventure and resilience among students.

Cultural activities play a pivotal role in the overall development of students, helping them acquire essential soft skills such as resource management, public speaking, teamwork, leadership, and ethics. The university is equipped with state-of-the-art infrastructure to support a variety of cultural activities, including musical performances, dance, theatre, painting, and fashion shows. The most anticipated cultural event, NUZEAL, is organized annually, showcasing the diverse talents of students.

The Students' Welfare Board also addresses important social issues through cultural events, covering topics such as gender equality, exploitation in education, the importance of morals and ethics, patriotism, communal harmony, global citizenship, and environmental issues. Moreover, the university actively encourages student participation in various state and national level cultural activities held at different institutions and universities across the country.

A highlight of the cultural calendar is the annual Ras-Garba Mahotsav (RAMZAT), celebrated on the first Saturday after Navratri. This event brings together students and faculty to enjoy Garba, the traditional dance form of Gujarat, fostering a sense of community and cultural pride.

Overall, the Students' Welfare Board ensures a well-rounded and enriching experience for all students, contributing significantly to their personal and professional development.



GUIDELINES FOR SHOWING THE ASSESSED ANSWER BOOKS

- The process of showing the assessed answer books after the declaration of results should be completed within the first week of commencement of the next semester as per the announcement of Academic Calendar or in the first week after the declaration of the result whichever is later.
- Examination Section will prepare a notice of showing the assessed answer books to the student and same notice will be put on notice board for the information of the students.
- HOI concerned will appoint the Convener from the Institute of Pharmacy Examination Committee.
- Until the said process gets over, the custody of the assessed answer books will remain with the Institute under the supervision of Coordinator of Examination department at the Institute.
- Modality of showing the assessed answer books in the classroom to the interested students should be decided by the concerned HOIs.
- The appointed Convener from the Examination Committee will take due care while showing the assessed answer books to the students to avoid any Unfair-means used or answer book does not lost for which the person who is assigned the job will take care with the help of Assistant / Laboratory Assistant as a supporting staff can be provided by HOI.
- There is no provision for revaluation of the answer books in any examination. However, the candidates can apply for retotalling by paying prescribed fees.
- According to the guidelines set by the Head of Institute (HOI), the Coordinator of the Examination Department, assisted by the supporting staff, will issue sealed packets of assessed answer books to the designated Convener. These individuals will show the assessed answer books to interested students. An issue register will be maintained, recording the number of assessed answer books distributed and received. Both the issuing and receiving authorities will sign the register to confirm the transaction.
- When showing assessed answer books to students, if any errors are found—such as mistakes in totalling marks, transferring marks from inside pages to the front page, or unassessed answers—the person responsible should report these issues using the prescribed format. The identified answer books, along with the remaining assessed answer books, should be returned in a sealed packet to the Coordinator of the Examination Department.
- All cases of correction should be sent to the Dy. Registrar (Examination) in University in sealed cover on the same day for further process.

SECTION C

Teaching and Examination Scheme

MASTER OF PHARMACY (PHARMACEUTICS)

SEMESTER I

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPH101T	Modern Pharmaceutical Analytical Techniques	4	-	4	10	15	75
2	MPH102T	Drug Delivery Systems	4	-	4	10	15	75
3	MPH103T	Modern Pharmaceutics	4	-	4	10	15	75
4	MPH104T	Regulatory Affairs	4	-	4	10	15	75
5	MPH105P	Pharmaceutics Practical I	-	12	6	20	30	100
6	MPH106S	Seminar / Assignment - I	-	7	4	-	-	100
		Total	16	19	26			

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER II

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPH201T	Molecular Pharmaceutics (NanoTech and Targeted DDS)	4	-	4	10	15	75
2	MPH202T	Advanced Biopharmaceutics and Pharmacokinetics	4	-	4	10	15	75
3	MPH203T	Computer Aided Drug Delivery System	4	-	4	10	15	75
4	MPH204T	Cosmetic and Cosmeceuticals	4	-	4	10	15	75
5	MPH205P	Pharmaceutics Practical II	-	12	6	20	30	100
6	MPH206S	Seminar / Assignment – II	-	7	4	-	-	100
	MPHVA 207T	Soft Skills and Professional Development*	2	-	-	100	-	-
		Total	18	19	26			

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER III

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRM301T	Research Methodology and Biostatistics*	4	-	4	10	15	75
2	MPH302T	Journal Club -I	1	-	1	25	-	-
3	MPH303T	Discussion/Presentation (Proposal Presentation)	2	-	2	50	-	-
4	MPH304P	Research Work	-	28	14	-	-	350
		Total	7	28	21			

* Non-University Examination (NUE)

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

SEMESTER IV

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPH401T	Journal Club-II	1		1	25	-	-
2	MPH402P	Research work and Colloquium*	-	31	16	-	-	400
3	MPH403T	Discussion/Final Presentation (Proposal Presentation)	3	-	3	75	-	-
		Total	4	31	20			

* Duration of Research Work Evaluation and Colloquium for SEE is 1 hr.

Co-curricular Activities Minimum 02 Credits, Maximum 07 Credits	
<i>Guidelines on Awarding Credit Points for Co-curricular Activities</i>	
Name of the Activity	Maximum Credit Points
Participation in National Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	01
Participation in international Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	02
Academic Award / Research Award from State Level / National Agencies	01
Academic Award / Research Award from International Agencies	02
Research / Review Publication in National Journals (Indexed in Scopus / Web of Science)	01
Research / Review Publication in International Journals (Indexed in Scopus / Web of Science)	02

Note:

International Conference: Held Outside India

International Journal: The Editorial Board Outside India

MASTER OF PHARMACY (PHARMACOLOGY)

SEMESTER I

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPL101T	Modern Pharmaceutical Analytical Techniques	4	-	4	10	15	75
2	MPL102T	Advanced Pharmacology-I	4	-	4	10	15	75
3	MPL103T	Pharmacological and Toxicological Screening Methods-I	4	-	4	10	15	75
4	MPL104T	Cellular and Molecular Pharmacology	4	-	4	10	15	75
5	MPL105P	Pharmacological Practical I	-	12	6	20	30	100
6	MPL106S	Seminar / Assignment - I	-	7	4	-	-	100
		Total	16	19	26			

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER II

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPL201T	Advanced Pharmacology-II	4	-	4	10	15	75
2	MPL202T	Pharmacological and Toxicological Screening Methods-II	4	-	4	10	15	75
3	MPL203T	Principles of Drug Discovery	4	-	4	10	15	75
4	MPL204T	Clinical research and Pharmacovigilance	4	-	4	10	15	75
5	MPL205P	Pharmacological Practical- II	-	12	6	20	30	100
6	MPL206S	Seminar / Assignment	-	7	4	-	-	100
7	MPHVA 207T	Soft Skills and Professional Development**	2	-	-	100	-	-
		Total	18	19	26			

* Value added course

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER III

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRM301T	Research Methodology and Biostatistics*	4	-	4	10	15	75
2	MPL302T	Journal Club	1	-	1	-	-	25
3	MPL303T	Discussion/Presentation (Proposal Presentation)	2	-	2	-	-	50
4	MPL304P	Research Work	-	28	14	-	-	350
		Total	7	28	21			

* Non-University Examination (NUE)

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

SEMESTER IV

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPL401T	Journal Club	1		1	-	-	25
2	MPL402P	Research work and Colloquium*	-	31	16	-	-	400
3	MPL403T	Discussion/Final Presentation (Proposal Presentation)	3	-	3	-	-	75
		Total	4	31	20			

* Duration of Research Work Evaluation and Colloquium for SEE is 1 hr.

Co-curricular Activities Minimum 02 Credits, Maximum 07 Credits	
<i>Guidelines on Awarding Credit Points for Co-curricular Activities</i>	
Name of the Activity	Maximum Credit Points
Participation in National Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	01
Participation in international Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	02
Academic Award / Research Award from State Level / National Agencies	01
Academic Award / Research Award from International Agencies	02
Research / Review Publication in National Journals (Indexed in Scopus / Web of Science)	01
Research / Review Publication in International Journals (Indexed in Scopus / Web of Science)	02

Note:

International Conference: Held Outside India

International Journal: The Editorial Board Outside India

MASTER OF PHARMACY (PHARMACEUTICAL ANALYSIS)

SEMESTER I

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPA101T	Modern Pharmaceutical Analytical Techniques	4	-	4	10	15	75
2	MPA102T	Advanced Pharmaceutical Analysis	4	-	4	10	15	75
3	MPA103T	Pharmaceutical Validation	4	-	4	10	15	75
4	MPA104T	Food Analysis	4	-	4	10	15	75
5	MPA105P	Pharmaceutical Analysis Practical I	-	12	6	20	30	100
6	MPA106S	Seminar / Assignment - I	-	7	4	-	-	100
		Total	16	19	26			

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER II

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPA201T	Advanced Instrumental Analysis	4	-	4	10	15	75
2	MPA202T	Modern Bio-Analytical Techniques	4	-	4	10	15	75
3	MPA203T	Quality Control and Quality Assurance	4	-	4	10	15	75
4	MPA204T	Herbal and Cosmetic Analysis	4	-	4	10	15	75
5	MPA205P	Pharmaceutical Analysis Practical II	-	12	6	20	30	100
6	MPA206S	Seminar/Assignment-II	-	7	4	-	-	100
	MPHVA 207T	Soft Skills and Professional Development*	2	-	-	100	-	-
		Total	18	19	26			

* Value added course

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER III

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRM301T	Research Methodology and Biostatistics*	4	-	4	10	15	75
2	MPA302T	Journal Club -I	1	-	1	25	-	-
3	MPA303T	Discussion/Presentation (Proposal Presentation)	2	-	2	50	-	-
4	MPA304P	Research Work	-	28	14	-	-	350
		Total	7	28	21			

* Non-University Examination (NUE)

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

SEMESTER IV

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MPA401T	Journal Club-II	1		1	25	-	-
2	MPA402P	Research work and Colloquium*	-	31	16	-	-	400
3	MPA403T	Discussion/Final Presentation (Proposal Presentation)	3	-	3	75	-	-
		Total	4	31	20			

* Duration of Research Work Evaluation and Colloquium for SEE is 1 hr.

Co-curricular Activities Minimum 02 Credits, Maximum 07 Credits	
<i>Guidelines on Awarding Credit Points for Co-curricular Activities</i>	
Name of the Activity	Maximum Credit Points
Participation in National Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	01
Participation in international Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	02
Academic Award / Research Award from State Level / National Agencies	01
Academic Award / Research Award from International Agencies	02
Research / Review Publication in National Journals (Indexed in Scopus / Web of Science)	01
Research / Review Publication in International Journals (Indexed in Scopus / Web of Science)	02

Note:

International Conference: Held Outside India

International Journal: The Editorial Board Outside India

MASTER OF PHARMACY (REGULATORY AFFAIRS)

SEMESTER I

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRA101T	Good Regulatory Practices	4	-	4	10	15	75
2	MRA102T	Documentation and Regulatory Writing	4	-	4	10	15	75
3	MRA103T	Clinical Research Regulations	4	-	4	10	15	75
4	MRA104T	Regulations and Legislation for Drugs & Cosmetics, Medical Devices, Biologicals & Herbals, and Food & Nutraceuticals in India and Intellectual Property Rights	4	-	4	10	15	75
5	MRA105P	Regulatory Affairs Practical I	-	12	6	20	30	100
6	MRA106S	Seminar/Assignment-I	-	7	4	-	-	100
		Total	16	19	26			

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER II

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRA201T	Regulatory Aspects of Drugs & Cosmetics	4	-	4	10	15	75
2	MRA202T	Regulatory Aspects of Herbal & Biologicals	4	-	4	10	15	75
3	MRA203T	Regulatory Aspects of Medical Devices	4	-	4	10	15	75
4	MRA204T	Regulatory Aspects of Food & Nutraceuticals	4	-	4	10	15	75
5	MRA205P	Regulatory Affairs Practical II	-	12	6	20	30	100
6	MRA206S	Seminar/Assignment-II	-	7	4	-	-	100
	MRAVA 207T	Soft Skills and Professional Development**	2	-	-	100	-	-
		Total	18	19	26			

* Value added course

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

Duration of Sessional Exam 6 hrs. and Semester End Exam 6 hrs. (Practical)

SEMESTER III

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRM301T	Research Methodology and Biostatistics*	4	-	4	10	15	75
2	MRA302T	Journal Club-I	1	-	1	25	-	-
3	MRA303T	Discussion/Presentation (Proposal Presentation)	2	-	2	50	-	-
4	MRA304P	Research Work*	-	28	14	-	-	350
		Total	7	28	21			

* Non-University Examination (NUE)

Duration of Sessional exam 1 hr. and Semester End Examination 3 hrs. (Theory)

SEMESTER IV

Sr. No.	Course Code	Course Title	Teaching Scheme			Examination Scheme		
			No. of hours of Theory	No. of hours of Practical	Credit	CEE		Semester End Examination (SEE)
						CM	Sessional Exam	
1	MRA401T	Journal Club-II	1		1	25	-	-
2	MRA402P	Research work and Colloquium	-	31	16	-	-	400
3	MRA403T	Discussion/Final Presentation (Proposal Presentation)	3	-	3	75	-	-
		Total	4	31	20			

* Duration of Research Work Evaluation and Colloquium for SEE is 1 hr.

Co-curricular Activities Minimum 02 Credits, Maximum 07 Credits	
<i>Guidelines on Awarding Credit Points for Co-curricular Activities</i>	
Name of the Activity	Maximum Credit Points
Participation in National Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	01
Participation in international Level Seminar / Conference / Workshop / Symposium / Training Programs (related to the specialization of the student)	02
Academic Award / Research Award from State Level / National Agencies	01
Academic Award / Research Award from International Agencies	02
Research / Review Publication in National Journals (Indexed in Scopus / Web of Science)	01
Research / Review Publication in International Journals (Indexed in Scopus / Web of Science)	02

Note:

International Conference: Held Outside India

International Journal: The Editorial Board Outside India

SECTION D

Academic Rules and Examination Regualtions

ACADEMIC RULES AND REGULATIONS

ACADEMIC REGULATIONS FOR POST GRADUATE DEGREE PROGRAMMES (M. Pharm) UNDER FACULTY OF PHARMACY

DEFINITIONS: IN THESE REGULATIONS, UNLESS THE CONTEXT OTHERWISE REQUIRES:

Programme	- It is a postgraduate degree programme
Course	- A constituent subject of the programme
Semester/Term	- Duration for studying a course/s i.e. a portion of an academic year. The word "Term" is generally used synonymously with "Semester".
Registration	- Procedure to register a course/s in a semester for the purpose of study or appearance in examination.
Letter Grade	- A letter associated with a particular performance level of a student in a course. A qualitative meaning and numerical figures are attached to each grade.
Credit	- A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. On passing a course, a student will earn this "credit".
Appeal Committee	- A Committee consisting of Director, Head of the Department and two senior faculty members nominated by the Director.

SHORT FORMS:

The Institute	- The Institute of Pharmacy
The Director	- The Director, Institute of Pharmacy
Faculty	- Faculty of Pharmacy
The Dean	- The Dean, Faculty of Pharmacy
CEE/CM	- Continuous Evaluation Examination/Continuous Mode
PWE	- Practical Work Examination
SEE	- Semester End Examination
SPE	- Supplementary Examination
IR	- Initial Registration
RR	- Repeat Registration
RS	- Repeat Registration for Studying all components of a course
RRE	- Repeat Registration Examination
RRC	- Repeat Registration for Examination of continuous evaluation component of a course
RRP	Repeat Registration for Examination of Practical/Lab work of a course
RRS	- Repeat Registration for Semester End Examination of a course
GPA	- Grade Point Average
SGPA	- Semester Grade Point Average
PGPA	- Programme Grade Point Average
CGPA	- Cumulative Grade Point Average

CATEGORIES OF COURSES

The following categories of courses are offered in the programme.

Core Courses:

The courses to be compulsorily studied by the students as a core requirement to complete the academic requirement of a programme as prescribed by the Course Regulation prescribed by the Pharmacy Council of India.

Elective courses:

Elective course is a course which can be chosen from a pool of Courses. It may be:

- Supportive to the discipline of study
- Providing an expanded scope
- Enabling an exposure to some other discipline/domain
- Nurturing student's proficiency/skill

An elective may be "Generic Elective" focusing on those courses which add generic proficiency to the students. An elective may be "Discipline centric" which may include the elective offered for major and minor or may be chosen from another discipline.

Dissertation:

A candidate studies such a course with an advisory support by a teacher/expert in the concerned field is called dissertation it may be offered as a core course or elective course depending based upon the Teaching and Examination scheme as per the Pharmacy Council of India and approved by Academic Council from time to time.

Project(s)/Internship(s):

All students will have to complete project(s)/internship(s) with a social or an industrial or business or service or a foreign organization for a duration as prescribed in the Teaching and Examination Scheme with an objective to provide professional learning experience that offers meaningful practical work related to a student's field of study or career interest or any field.

Value Added Courses:

They are offered to the students to provide an additional exposure to certain skills/knowledge. This is a Non-credit course. The Dean of the Faculty is empowered to decide these courses, their

curriculum, teaching and examination schemes, passing standards, etc. in accordance with the value-added course policy approved by the Academic Council and from the list of courses approved by the Academic Council.

Audit Courses:

These are optional courses. Audit courses are not evaluated for the purpose of assessing the academic performance of the students and no grade will be awarded for these courses.

Vocational Course:

Vocational courses are career/job-oriented courses prepares learners for jobs that are based in manual or practical activities. These courses are traditionally non-academic and totally related to a specific trade, occupation or vocation

Minimum Credit Requirements:

The minimum credit points required for the award of M. Pharm. degree is 95. However, based on the credit points earned by the students under the head of co-curricular activities, a student shall earn a maximum of 100 credit points. These credits are divided into Theory courses, Practical, Seminars, Assignments, Research work, Discussions with the supervisor, Journal club and Co-Curricular activities over the duration of four semesters. The credits are distributed semester-wise as shown in Table given below:

Semester Wise Credits Distribution

Semester	Credit Points
Semester I	26
Semester II	26
Semester III	21
Semester IV	20
Co-curricular Activities (Attending Conference, Scientific Presentations and Other Scholarly Activities)	Minimum = 02 Maximum = 07*
Total Credit Points	Minimum = 95 Maximum – 100*

* Credit points for Co-curricular Activities

COMPONENTS OF A COURSE

The academic schedule of the courses may consist of one or more of the following components with their respective scope as described.

Lecture

Teaching learning sessions conducted through real and virtual classrooms with various multimedia aids and other forms of students learning engagements as per requirement of the course and approved by the Dean.

Tutorials

Supplementary to classroom teaching tutorials are conducted as per Nirma University Tutorial Policy and as amended from time to time.

Project Work / Practical Work/ Studio/Workshop/Field work

The students will be engaged in research or Practical Work pertaining to a course.

EXAMINATION SCHEME

For assessment of a course, a student is assessed on following components:

- Continuous Evaluation Examination (CEE) / Continuous Mode (CM) – is an integral part of Internal Assessment as prescribed by the Pharmacy Council of India that includes several sub-components such as Sessional Exam, Quizzes/ Test, Assignment, comprehensive Viva, and Project (Group/ individual), etc. All exercise in CEE will be continuously assessed during the semester and given marks.
- Practical Work Examination (PWE) – that includes several subcomponents as per the practical work policy of Institute of Pharmacy. All assignments in practical work will be continuously/ periodically assessed (as applicable) during the semester.
- Semester End Examination (SEE) which will be conducted at the end of the semester/term. The SEE covers the entire syllabus of the course

The course in each programme (semester-wise) and their examination scheme along with the teaching scheme are given in the Semester Schedules approved by the Academic Council from time to time on recommendation of Faculty of Pharmacy.

The assessment of sub-components of courses for CEE & PWE differ depending upon the nature and the teaching scheme of the concerned course. The detailed assessment scheme of the CEE, PWE and SEE for each course will be finalized and notified in form of course outline by the Dean in accordance with the assessment policy approved by the Academic Council.

Registration

There are two categories of registration, Initial Registration (IR) and Repeat Registration (RR). All categories of registration will collectively be referred to simply as Registration. Registration will be done for each course. All Registration, wherever applicable, will be subject to the availability of courses. Students' registration in a Semester will be in chronological order.

Categories of Registration

Initial Registration (IR)

In order to study a course for the first time, the student will register under the IR category. This will imply regular attendance for study of all components of that course and appearing at all examinations thereof. IR registration for courses of a Semester are to be done for all courses of that Semester as shown in the Teaching Scheme. Generally, IR registration will not be permitted for lesser number of courses. The student who so registers (IR) for all courses of a Semester will be considered as having been registered in that Semester.

Repeat Registration (RR)

Repeat registration is consisting of following categories of registrations.

Repeat Registration for Study of a course (RS)

This category will imply regular attendance (as per R. PHARMACY(PG) 8) to study all components (i.e. LT, CE, PW as applicable) and appearing at all examinations thereof. The student has to seek fresh registration for this category and will be subject to the availability of the course/s.

Repeat Registration for Examination (RRE)

This registration is necessary for appearing again in a particular examination of a course. It will not involve regular attendance for studying the course.

Repeat Registration for Examination will be in the following categories:

- Repeat Registration for the Examinations of Continuous Evaluation component of a course (RRC)
- Repeat Registration for the Examination of Practical /Lab Work (RRP)
- Repeat Registration for Semester End Examination of a course (RRS).

Approval of Registration

Every student must apply in the prescribed format for registrations, as applicable. The decision on the student's request will be based on the availability of courses and applicable Regulations. The

Dean will issue appropriate orders for processing the application, including scrutiny, verification and final orders.

ATTENDANCE REQUIREMENT FOR APPEARANCE AT SEMESTER END EXAMINATION

A student has to comply with the following condition course wise to be eligible to admit for SEE.

Attendance

Students under category of (IR, RS) should have at least 80% attendance, including Academic Leave in all teaching components of the course (as applicable).

Appeal Committee

A student who has not met with attendance requirement of any course may appeal to the Appeal Committee giving full reasons for his/her default. The decision of the Committee in all such cases will be final. The student will be allowed to appear in the examination of the course only if the appeal committee condones the deficiency.

If the committee rejects the appeal of the student, then the student will not be permitted to appear in SEE of the concerned course. Accordingly, S/he will also be given grade F in that course and S/he will have to seek RS category registration.

Notwithstanding anything contained in these regulations, if a student is unable to meet the attendance requirement for certain courses due to a serious medical condition the student may submit an appeal to the Director General through the Director of the concerned institute with his/her recommendation.

The Director General may consider such appeal based on the recommendation of the concerned Director, provided that the student has attended a minimum of 50% of the total contact hours conducted for the respective courses.

The Director General, upon receiving the appeal with the recommendation of the Director and being satisfied with the merits of the case, may allow the student to appear in a supplementary/special examination for the affected course(s), provided:

- The student shall have to attend supplementary teaching sessions specifically conducted to address the academic shortfall arise from the attendance deficiency, upon payment of the prescribed fee.

The student scores the minimum prescribed marks in Continuous Evaluation (CE). The marks secured by the student in the continuous evaluation during the regular semester shall be retained. However, in cases where specific components of continuous assessment were missed due to the

exceptional circumstance (with the prior approval of the Director) the concerned course faculty may provide an alternative assessment opportunity.

Scope of Examinations and Assessment

The scope of examinations and the method of assessment are as follows:

Continuous Evaluation Examination (IR & RR Registration)

The learning of the students will be continuously assessed during the Semester and given marks. The total marks of components of continuous evaluation will be aggregated based on their inter se weights to give the overall percentage of marks in the CEE examination.

A student shall have the opportunity to improve his/her performance only once in the sessional exam component of the internal assessment. The re-conduct of the sessional exam shall be completed before the commencement of next end semester theory examinations.

PW Examination (IR and RR Registration)

All assignments of a course in Practical Work will be continuously / periodically assessed (as applicable) during a semester. Each assessment will be given marks. The total marks of all Units of PW will be aggregated based on their inter se weights to give the overall percentage of marks in the PW examination. The course coordinator will notify the procedure for assessment, review, viva voce, etc. to the students in advance.

A student shall have the opportunity to improve his/her performance only once in the sessional exam component of the Continuous Evaluation / Continuous Mode Examination (CEE /CM). The re-conduct of the sessional exam shall be completed before the commencement of next end semester theory examination.

Semester End Examination (IR & RR Registration)

The expression 'Semester End Examination' refers to the Hall Examination of a course taken at the end of a Semester. The SEE of a course will cover the entire syllabus of the course. The assessment will be mark based.

If the course coordinator desires that there should be an open book examination in a course in any SEE, S/he may make a suitable recommendation to the Department/Programme Head. Final approval of the Dean will be necessary before the scheme is implemented. This method of examination must be announced to the students through the Course Outline before the commencement of the respective course.

Special Supplementary Examination

If a student fails to appear in SEE of any course due to extra ordinary reasons/circumstances such as self-hospitalisation, complete physical immobility or death of immediate family members (parents or siblings only) may be permitted to take up special supplementary examination subject to submission of an application along with relevant valid documents and approval from the Dean, Faculty of Pharmacy, on the recommendation of the appeal committee.

Schedules of SEE and SPE

SEEs of all courses of the programme, as per the teaching scheme, will be held at the end of each semester. The date of the Supplementary Examinations (SPE) will be held generally after 15 days from the date of result declaration of SEE and will be for only those courses that are offered in that semester.

Absence in SE examination with or without Regular Approval will be assigned Zero [0] marks and appropriate grade will be given to the student. However, they will be permitted to appear in the Supplementary Examination.

GRADE AND PERFORMANCE LEVELS

The overall Academic Performance level of a student in any course will be adjudged in terms of the letter grades, and grade points. Table-1 provides significance of letter grades along with its equivalent grade points

Table No. 1 Conversion of Marks into Course Grades

Overall Percentage (%) of Marks obtained	Letter Grade	Performance	Grade Point
90 to 100	O	Outstanding	10
80 to 89.99	A	Excellent	9
70 to 79.99	B	Good	8
60 to 69.99	C	Fair	7
50 to 59.99	D	Average	6
Less than 50	F	Fail	0
Absent	AB	Fail	0

Declaration of Class

The Class shall be awarded on the basis of CGPA as follows:

First Class with Distinction = CGPA of 7.50 and above

First Class = CGPA of 6.00 to 7.49

Second Class = CGPA of 5.00 to 5.99

Passing Standards**Component-Wise Minimum Passing**

A Student is required to meet component-wise minimum marks for passing a course. The requirement of minimum marks in Continuous Assessment (CE & PW) as well as End Semester Examination is 50%.

The standard for passing a course

The minimum standard for passing a course as whole is "Grade D".

Academic Standard for Successful Completion of a Semester

For successful completion of a semester a student is required to earn a minimum SGPA of 6.00 besides he/she is required to pass all courses of semester.

Failure**Failure of components of course:**

A student not satisfying the academic standard for Passing any of the course components shall be awarded course Grade 'F'.

Scope for improvement:

Student fails in a component of a course is permitted to register (RR) for improvement during end of the following semester besides the opportunity to improve the SEE component by taking supplementary examination at the end of the same semester.

Academic Break

A student will be allowed to take the break up to one academic year during the programme due to medical reason or any other justifiable reason subject to approval of the Director General on the recommendation of the Dean. The decision of Director General for consideration or rejection of such request shall be final. If the student considered for Academic break then following conditions shall apply:

- The student shall not be entitled for award of Medal,
- The student has to complete the study within the admissible duration to complete the programme
- Payment of all applicable fees.

ACADEMIC PROGRESSION RULE

In order to successfully complete a semester a student is required to meet the academic standard as per Regulation R. PHARMACY(PG) 13.3. However, a student be allowed to promote to the next higher semester even if he/she has not met with the all requirements except in cases where the student has failed in more than three credit based courses of that semester on account of attendance requirements under R. PHARMACY(PG) 8, subject to the following conditions:

Failure in Course

A student shall be eligible to carry forward all the courses of I and II semester till the III semester examinations. However, he/she shall not be eligible to attend the courses of IV semester until all the courses of I , II and III semesters are successfully completed.

Note: Grade AB should be considered as failed and treated as one head for deciding backlog (ATKT). Such rules are also applicable for those students who fail to register for examinations (s) of any course in any semester.

Failure to meet the Academic requirement of the Semester

If a student fails to meet with the above condition will not be permitted to register for respective higher semester. Such students will repeat sufficient number of courses as ex-student and meet with the requirement of the promotion criteria. Such students can also appeal to the Appeal Committee for grant of opportunity to be promoted to the next higher semester, provided that the student gives a viable assurance to make-up the short fall within a semester. The decision of the Appeal Committee will be final in this regard.

AWARD OF DEGREE

To qualify for the award of Master of Pharmacy degree a student requires:

- CGPA 6.0 along with requirements mentioned in R.13.3 - of Academic Standard for Successful Completion of a Semester
- successfully complete the prescribed credits of the programme as specified in the Teaching and Examination Scheme

- successfully complete Value-added courses(s) as notified by the Dean in the Teaching and Examination Scheme with a minimum grade 'satisfactory, failing to which, s/he is required to improve the Value-added courses(s) grade in the scheme as prescribed by the Dean, Faculty of Pharmacy.

CANCELLATION OF ADMISSION

The admission of following categories of students is liable to be cancelled:

- Failure to meet the academic requirements for the award of post graduate degree within (2+1) years from the date of admission to the programme.
- The student, whose admission is so cancelled, can appeal to the Appeal Committee. The Committee may grant an extension up to the TWO additional Semester/s for the deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

NOTE

Notwithstanding anything contained above, if a student has cleared all the courses and have earned the requisite number of credits except one course, may appeal to the President. The President may consider such appeal on the recommendation of the appeal committee prescribed under the regulations for the purpose and after considering the genuineness of the case may give ONE more additional attempt to the student concerned to clear the remaining course.

REVALUATION / RETOTALING OF ANSWER BOOKS

There is no provision for revaluation of the answer books in any examination. However, the candidates can apply for retotaling by paying prescribed fees.

SECTION E

M. Pharm Course Details

M. PHARM COURSE DETAILS

Pharmaceutics

M. Pharm [Year 1 /Semester I]

Name of Course **Modern Pharmaceutical Analytical Techniques**

Course Code MPH101T

Scope This subject deals with various advanced analytical instrumental techniques for identification, characterization and quantification of drugs. Instruments dealt are NMR, Mass spectrometer, IR, HPLC, GC etc.

- References**
- Silverstein, R. M., Webster, F. X., Kiemle, D. J., & Bryce, D. L. Spectrometric Identification of Organic Compounds. Johnwiley & sons.
 - Skoog, D. A. H., James, F., & Nieman, T. A. Principles of Instrumental Analysis. Eastern press.
 - Hobart, W. H., Merritt LL, Dean John. A., Instrumental Methods of Analysis. CBS publishers.
 - Beckett, A. H., & Stenlake, J. B. (Eds.). Practical Pharmaceutical Chemistry: Part II Fourth Edition (Vol. 2). A&C Black.
 - Kemp, W. Organic Spectroscopy. ELBS.
 - Shethi, P. D. Quantitative Analysis of Drugs in Pharmaceutical Formulations. CBS Publishers.
 - Munson, J. W. Pharmaceutical Analysis: Modern Methods (Vol. 11). CRC Press.

Name of Course **Drug Delivery Systems**

Course Code MPH 102T

Scope This course is designed to impart knowledge on the area of advances in novel drug delivery systems.

- References**
- Chien, Y W. Novel Drug Delivery Systems, New York: Marcel Dekker, Inc.
 - Robinson, J. R., Lee V. H. L. Controlled Drug Delivery Systems, New York: Marcel Dekker, Inc.
 - Edith Mathiowitz, Encyclopedia of controlled delivery, New York: Wiley Interscience Publication, John Wiley and Sons, Inc.

- Jain, N.K. Controlled and Novel Drug Delivery, New Delhi: CBS Publishers & Distributors.
- Vyas, S. P. and Khar, R. K. Controlled Drug Delivery - concepts and advances, New Delhi: Vallabh Prakashan.

Name of Course Modern Pharmaceutics

Course Code MPH 103T

Scope Course designed to impart advanced knowledge and skills required to learn various aspects and concepts at pharmaceutical industries

References ▪ arbrick, J. Encyclopaedia of Pharmaceutical technology, Vol I – III, CRC press.

Name of Course Regulatory Affairs

Course Code MPH104T

Scope Course designed to impart advanced knowledge and skills required to learn the concept of generic drug and their development, various regulatory filings in different countries, different phases of clinical trials and submitting regulatory documents: filing process of IND, NDA and ANDA

References • Leon Shargel and Isader Kaufer, Generic Drug Product Development, Solid Oral Dosage forms, Marcel Dekker series.

• Berry, I. R. and Robert, P. M. The Pharmaceutical Regulatory Process, Drugs and the Pharmaceutical Sciences, Informa Health care Publishers.

• Richard, A. G., New Drug Approval Process: Accelerating Global Registrations, Drugs and the Pharmaceutical Sciences, Informa Healthcare.

• Sandy Weinberg. Guidebook for drug regulatory submissions, Wiley & Sons.Inc.

• Douglas J. P., David Mantus. FDA regulatory affairs: a guide for prescription drugs, medical devices, and biologics Informa Healthcare.

• Fay A. R. and Rodney K. A. Clinical Trials and Human Research: A Practical Guide to Regulatory Compliance, John Wiley & Sons.

Name of Course Pharmaceutics Practical I

Course Code MPH 105P

Scope This MPharm practical course is designed to equip students with advanced skills in drug formulation, analytical techniques, and regulatory documentation. It covers the development and evaluation of novel drug delivery systems such as sustained release, floating, mucoadhesive, and transdermal formulations. Students will also perform preformulation studies, optimize formulations using scientific models, and apply techniques to enhance drug solubility. In addition, the course offers hands-on training in instrumental analysis including UV, HPLC, GC, and TLC methods. Regulatory modules focus on GMP documentation, dossier preparation, and global filing requirements, bridging academic knowledge with pharmaceutical industry standards.

Name of Course Seminar / Assignment - I

Course Code MPH106S

Scope This course is designed to provide postgraduate pharmacy students with structured training in scientific literature review, academic writing, presentation, and research communication skills through Seminar/Assignment Courses. It enables students across all MPharm specializations to identify and analyze research topics, prepare critical reviews, develop manuscripts suitable for peer-reviewed publication, and present their work effectively through poster and oral presentations. The scope further ensures uniformity in conduct, mentoring, and assessment, thereby strengthening students' research aptitude, critical thinking, and scholarly dissemination in alignment with academic and professional standards.

M. Pharm [Year 1 /Semester 2]

Name of Course Molecular Pharmaceutics (NanoTech and Targeted DDS)

Course Code MPH201T

Scope This course is designed to impart knowledge on the area of advances in novel drug delivery systems.

References • Y W. Chien, Novel Drug Delivery Systems, 2nd edition, revised and expanded, Marcel Dekker, Inc., New York, 1992.

• S.P. Vyas and R.K.Khar, Controlled Drug Delivery - concepts and advances, Vallabh Prakashan, New Delhi, First edition 2002.

- N.K. Jain, Controlled and Novel Drug Delivery, CBS Publishers & Distributors, New Delhi, First edition 1997 (reprint in 2001).

Name of Course Advanced Biopharmaceutics and Pharmacokinetics

Course Code MPH202T

Scope This course is designed to impart knowledge and skills necessary for dose calculations, dose adjustments and to apply biopharmaceutics theories in practical problem solving. Basic theoretical discussions of the principles of biopharmaceutics and pharmacokinetics are provided to help the students' to clarify the concepts.

- References
- Gibaldi Milo. Biopharmaceutics and Clinical Pharmacokinetics, Philadelphia, Lea and Febiger.
 - Brahmanekar D. M., Jaiswal S. B. Biopharmaceutics and Pharmacokinetics: A Treatise, Delhi, Vallabh Prakashan.
 - Shargel, Applied Biopharmaceutics and Pharmacokinetics, Connecticut Appleton Century Crofts.
 - Gibaldi M., Perrier D. Pharmacokinetics, New York, Marcel Dekker Inc.
 - Swarbrick. J, Current Concepts in Pharmaceutical Sciences: Biopharmaceutics. Philadelphia, Lea and Febiger.
 - Wagner J. G., Pamarowski M. Biopharmaceutics and Relevant Pharmacokinetics, Hamilton, Illinois, Drug Intelligence Publications.

Name of Course Computer Aided Drug Delivery System

Course Code MPH203T

Scope This course is designed to impart knowledge and skills necessary for computer Applications in pharmaceutical research and development who want to understand the application of computers across the entire drug research and development process. Basic theoretical discussions of the principles of more integrated and coherent use of computerized information (informatics) in the drug development process are provided to help the students to clarify the concepts.

- References
- Ekins, S. Computer Applications in Pharmaceutical Research and Development. John Wiley & Sons..

- Djuris, J. Computer-Aided Applications in Pharmaceutical Technology. First Edition. Woodhead Publishing.
- Swarbrick, J. Boylan, J.G. Encyclopedia of Pharmaceutical Technology. (Volume 20) New York, Marcel Dekker Inc.

Name of Course Cosmetic and Cosmeceuticals

Course Code MPH204T

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

- References
- Rieger, M. (2009). Harry's Cosmeticology: 8th edition 2 volume Set.
 - Saraf, S., & Saraf, S. (2008). Cosmetics a practical manual. Hyderabad: PharmaMed Press.
 - Butler, H. (2000). Poucher's perfumes, cosmetics, and soaps (10th ed.). Dordrecht: Kluwer Academic .
 - Williams, D. F., & Schmitt, W. H. (1992). Chemistry and Technology of the Cosmetics and Toiletries Industry. Dordrecht: Springer Netherlands.
 - Barel, A. O., Paye, M., & Maibach, H. I. (2001). Handbook of cosmetic science and technology. New York: Marcel Dekker.

Name of Course Pharmaceutics Practical II

Course Code MPH205P

Scope This MPharm practical course offers hands-on training in advanced drug delivery systems, applications of Pharmacokinetics, as well as, formulation and characterisation of cosmetic formulation. Students will learn to develop and evaluate microspheres, liposomes, alginate beads, and solid dispersions to enhance drug performance. The course includes bioavailability studies, protein binding assessments, and in vitro cell studies to understand drug metabolism and permeability. It also introduces data analysis and optimization using Design Expert®, with a focus on Quality-by-Design principles. Additionally, students will formulate and assess cosmetic products like creams, shampoos, and toothpaste, incorporating both herbal and chemical actives for specific dermatological and oral conditions.

Name of Course Seminar / Assignment II

Course Code MPH206S

Scope This course is designed to provide postgraduate pharmacy students with structured training in scientific literature review, academic writing, presentation, and research communication skills through Seminar/Assignment Courses. It enables students across all MPharm specializations to identify and analyze research topics, prepare critical reviews, develop manuscripts suitable for peer-reviewed publication, and present their work effectively through poster and oral presentations. The scope further ensures uniformity in conduct, mentoring, and assessment, thereby strengthening students' research aptitude, critical thinking, and scholarly dissemination in alignment with academic and professional standards.

Name of Course Soft Skills and Professional Development

Course Code MPHVA207T

Scope The Soft Skills and Personality Development course is designed to equip MPharm students with essential professional competencies that complement their technical knowledge. The course focuses on building effective interpersonal, leadership, and communication skills that are vital for success in the pharmaceutical industry and allied sectors.

Through structured sessions and interactive activities, students will gain practical exposure to networking, team management, and conflict resolution, while also learning strategies for stress management and resilience in a competitive work environment. Special emphasis will be placed on developing professional documents such as CVs, mastering interview skills, and creating impactful digital profiles to enhance employability.

In addition, this course is specifically designed to prepare students to successfully crack interviews during the placement season, enabling them to present themselves confidently and professionally before recruiters. It will serve as a foundation for students to develop into well-rounded professionals who can adapt to dynamic organizational requirements, work effectively in teams, and pursue leadership roles with confidence.

M. Pharm [Year 2 /Semester 1]**Name of Course Research Methodology and Biostatistics**

Course Code MRM301T

Scope The subject Research Methodology and Biostatistics (MRM301T) equips students with the essential skills to design, conduct, and analyze scientific research systematically. It emphasizes principles of research design, data collection, statistical analysis, and interpretation, fostering evidence-based decision-making in pharmaceutical and healthcare sciences.

References • Best, J.W., Kahn, J.V., Research In Education. New Delhi, Prentice Hall of India Pvt. Ltd.

• Halton, M., Presentation Skills. Indian Society for Institute Education

• Mcfarlane, G., A Practical Introduction to Copyright. McGraw Hill

• Davis, R.M., Thesis Projects in Science and Engineering. St. Martin's Press.

• Anderson, J., Thesis and Assignment Writing. John Wiley & Sons.

Name of Course Journal Club - I

Course Code MPH302T

Scope Journal Club – I is designed to develop critical thinking, analytical, and presentation skills among M.Pharm. Pharmaceutics students. It provides a structured platform to review and discuss recently published research articles relevant to pharmaceutics. Students learn how to critically evaluate experimental design, methodology, data interpretation, and conclusions drawn in scientific literature. The activity also emphasizes improving literature-searching abilities, understanding current research trends, and fostering scientific communication skills. By engaging in group discussions and peer learning, students gain confidence in academic writing, referencing, and professional presentation, preparing them for research and dissertation work.

Name of Course Discussion/Presentation (Proposal Presentation)

Course Code MPH303T

Scope This course focuses on the identification of novel project ideas of formulation development and the effective preparation of project proposals. It emphasizes critical thinking and creativity, enabling students to recognize gaps in existing pharmaceutical research and formulate innovative solutions. Students are also

able to learn how to develop original research concepts that aim to improve current drug formulations or therapeutic practices. A significant component of the course is dedicated to conducting systematic literature reviews using books, journals, internet resources and databases in order to analyze, synthesize, and critically evaluate existing research to justify their proposed work.. The proposal preparation increases their creative thinking, writing and presentation which is essential for M.Pharm students.. Overall, the course develops independent research thinking, boosts confidence in scientific communication.

Name of Course Research Work

Course Code MPH304P

Scope The course provides foundation during the earlier stages of literature review and project proposal development. It gives students ideas for transition from theoretical planning to practical implementation by conducting preliminary trials based on their proposed research project. It also helps in validation of feasibility of the project, planning work of the project and the selection of critical factors to be optimized for the formulation or process and thereby provides realistic roadmap for final product development. This course also improves student understanding of the project and shape the project for successful execution in the final research phase.

M. Pharm [Year 2 /Semester 2]

Name of Course Journal Club-II

Course Code MPH401T

Scope Journal Club – II extends the learning from Semester III and focuses on higher-order critical appraisal of advanced research in pharmaceuticals, novel drug delivery systems, and nanotechnology-based therapeutics. Students are encouraged to present in-depth reviews and emphasis is given to identifying research gaps and exploring innovative approaches to formulation and drug development. This activity strengthens scientific debate, teamwork, and independent thinking while enhancing problem-solving and decision-making skills. Ultimately, Journal Club – II prepares students to connect academic knowledge with practical research applications, fostering readiness for professional careers in academia, industry, and research organizations.

Name of Course Research work and Colloquium

Course Code MPH402P

Scope This course focus on the development and final optimization by students for their proposed formulation. This gives students the way to carry out systematic experiments using trial-and-error methods as well as advanced optimization tools such as Quality by Design QbD-Design of Experiments (DoE) to refine their formulation and process parameters based on the results of preliminary trials, . This phase involves comprehensive characterization and evaluation of the final product, including physicochemical, stability, and performance-related testing, depending on the nature of the formulation. Students improves their ability to critically analyze the data, draw logical conclusions, and provide scientific justification for their results. They will also able to interpret findings in the context of their initial objectives, ensuring that the formulation meets desired specifications and regulatory requirements. The students concludes with the preparation of a detailed thesis that documents the entire research pathway from problem identification, rationale, objective and literature review to final product development. Overall, this course improve their capability to conduct independent, scientific research project and critically finding pathway to resolve the formulation issues

Name of Course Discussion/Final Presentation (Proposal Presentation)

Course Code MPH403T

Scope The final presentation of the project proposal gives students opportunities to analyze the experimental data generated from their initial and final trials and assess aligning of the project outcomes with their original research plan. This enhances their ability to critically evaluate experimental results, interpret data and draw suitable conclusions. This significantly improves their understanding of formulation parameters, selection of excipients and techniques, process optimization, and risk assessment with strategies to overcome. . It also sharpens their ability to correlate formulation variables with product performance and thereby check its industrial scalability and marketability, Overall, students improve analytical ability, confidence in scientific presentation, critical assessment, and practical problem-solving abilities which is essential for robust pharmaceutical formulation product development.

Pharmacology

M. Pharm [Year 1 /Semester I]

Name of Course Modern Pharmaceutical Analytical Techniques

Course Code MPL101T

Scope This subject deals with various advanced analytical instrumental techniques for identification, characterization and quantification of drugs. Instruments dealt are NMR, Mass spectrometer, IR, HPLC, GC etc

- References
- Silverstein, R. M., Webster, F. X., Kiemle, D. J., Bryce, D. L. Spectrometric Identification of Organic Compounds. USA: John Wiley & Sons.
 - Skoog, D. A. H., James, F., & Nieman, T. A. Principles of Instrumental Analysis. Eastern Press.
 - Hobart, W. H., Merritt LL, Dean John. A., Instrumental Methods of Analysis. CBS Publishers.
 - Beckett, A. H., Stenlake, J. B. (Eds.). Practical Pharmaceutical Chemistry (Vol. 1 & 2). A&C Black.

Name of Course Advanced Pharmacology-I

Course Code MPL102T

Scope The subject is designed to strengthen the basic knowledge in the field of pharmacology and to impart recent advances in the drugs used for the treatment of various diseases. In addition, this subject helps the students to understand the concepts of drug action and mechanisms involved

- References
- Goodman Gilman A., Rall T.W., Nies A.I.S. and Taylor, P. Goodman and Gilman's The Pharmacological Basis of Therapeutics, New York: Mc Graw Hill, Pergamon Press.
 - Katzung, B.G. Basic and Clinical Pharmacology, New York: McGraw Hill.
 - Gibaldi, M., Prescott, L. Hand book of Clinical Pharmacokinetics. ADIS Health Science Press.
 - Dipiro, J.T., Talbert, R.L., Yee, G.C., Matzke, G.R. Wells, B.G., Posey, M.L. Pharmacotherapy: A Pathophysiologic approach. New York: Mc Graw Hills Publishers.

Name of Course Pharmacological and Toxicological Screening Methods- I

Course Code MPL103T

Scope This subject is designed to impart the knowledge on preclinical evaluation of drugs and recent experimental techniques in the drug discovery and development. The subject content helps the student to understand the maintenance of laboratory animals as per the guidelines, basic knowledge of various in-vitro and in-vivo preclinical evaluation processes

- References
- Turner, R. A., Hebborn, P. Screening Methods in Pharmacology. New York: Academic Press
 - Laurence, D. R., Bacharach, A. L. Evaluation of Drug Activities: Pharmacometrics. London: Academic Press.
 - Schwartz A. Methods in Pharmacology. Plenum New York.
 - Vogel, H.G. Drug Discovery and Evaluation: Pharmacological Assays. Berlin Heidelberg, Germany: Springer-Verlag.

Name of Course Cellular and Molecular Pharmacology

Course Code MPL104T

Scope The subject imparts a fundamental knowledge on the structure and functions of cellular components and help to understand the interaction of these components with drugs. This information will further help the student to apply the knowledge in drug discovery process.

- References
- Cooper, G. M. Hausman, R.E. The Cell: A Molecular Approach. Sinauer Associates
 - Bradshaw, R.A. Handbook of Cell Signaling. Amsterdam: Elsevier.
 - Dickenson, J. Molecular Pharmacology. Chichester: Wiley-Blackwell.
 - Davis, J. M. Basic Cell Culture. London, UK: Oxford University Press.

Name of Course Pharmacological Practical I

Course Code MPL105P

Scope The scope of pharmacological practicals, focusing on equipping them with advanced skills in drug discovery, development, and evaluation. These practicals delve into advanced experimental pharmacology, encompassing

both in-vivo and in-vitro techniques for screening drugs across various physiological systems like the nervous, cardiovascular, gastrointestinal, and endocrine systems. Students gain hands-on experience in animal handling and ethical considerations (as per CPCSEA guidelines), drug administration routes, and sample collection.

- References
- CPCSEA, OECD, ICH, USFDA, Schedule Y, EPA guidelines.
 - Ghosh, M. N. Fundamentals of Experimental Pharmacology. Kolkata: Hilton & Company.
 - Kulkarni, S. K. Hand book of Experimental Pharmacology. Delhi: Vallabh Prakashan.
 - Vogel, H. G. Drug Discovery and Evaluation: Pharmacological Assays. Berlin: Springer

M. Pharm [Year 1 /Semester II]

Name of Course	Advanced Pharmacology-II
Course Code	MPL201T
Scope	The subject is designed to strengthen the basic knowledge in the field of pharmacology and to impart recent advances in the drugs used for the treatment of various diseases. In addition, this subject helps the students to understand the concepts of drug action and mechanisms involved.
References	• Goodman Gilman A., Rall T.W., Nies A.I.S. and Taylor, P. Goodman and Gilman's The Pharmacological Basis of Therapeutics, New York: Mc Graw Hill, Pergamon Press. • Katzung, B.G. Basic and Clinical Pharmacology, New York: McGraw Hill. • Herfindal, E.T., Gourley. Text book of Therapeutics, Drug and Disease Management. Williams and Wilkins Publication. • Kumar, V. Abbas, A.K., Aster, J.C. Robbins & Cortan Pathologic Basis of Disease. Elsevier Publishers.

Name of Course Pharmacological and Toxicological Screening Methods-II

Course Code MPL202T

Scope This subject imparts knowledge on the preclinical safety and toxicological evaluation of drug & new chemical entity. This knowledge will make the student competent in regulatory toxicological evaluation.

- References
- World Health Organization. Handbook: good laboratory practice (GLP): quality practices for regulated non-clinical research and development. World Health Organization.
 - Schedule Y Guideline: drugs and cosmetics (second amendment) rules, 2005, ministry of health and family welfare (department of health) New Delhi
 - Lower, G. M., & Bryan, G. T., Animal Models in Toxicology, 3rd Edition, OECD test guidelines.
 - Stine, K. E., & Brown, T. M. Principles of toxicology. CRC Press, United states.

Name of Course Principles of Drug Discovery

Course Code MPL203T

Scope The subject imparts basic knowledge of drug discovery process. This information will make the student competent in drug discovery process.

- References
- Sioud, M. Target Discovery and Validation Reviews and Protocols: Emerging Molecular Targets and Treatment Options, Volume 2. Totowa: Humana Press Inc., New Jersey.
 - León, D., & Markel, S. (Eds.). In Silico Technologies in Drug Target Identification and Validation. CRC Press, United States
 - Bures, M. G. Structure-based Ligand Design Edited by K. Gubernator and H.-J. Bohm. Wiley- VCH, Weinheim.
 - Turner R. J. New drug development design, methodology and, analysis. John Wiley & Sons, Inc., New Jersey.

Name of Course Clinical Research and Pharmacovigilance

Course Code MPL204T

Scope This subject will provide a value addition and current requirement for the students in clinical research and pharmacovigilance. It will teach the students on conceptualizing, designing, conducting, managing and reporting of clinical trials. This subject also focuses on global scenario of Pharmacovigilance in different methods that can be used to generate safety data. It will teach the students in developing drug safety data in Pre-clinical, Clinical phases of Drug development and post market surveillance

- References
- Machin, D., Simon D., and Sylvan G., eds. Textbook of Clinical Trials. USA. John Wiley & Sons.
 - Lloyd, J., & Raven, A. (Eds.). Handbook of Clinical Research. Churchill Livingstone.
 - Di Giovanna, I., & Hayes, G. Principles of Clinical Research. UK, Routledge
 - Arora, D. Pharmacovigilance: An Industry Perspective. Mumbai, Pharma Publishers.

Name of Course Pharmacological Practical-II

Course Code MPL205P

Scope The scope of pharmacological practicals, focusing on equipping them with advanced skills in drug discovery, development, and evaluation. These practicals delve into advanced experimental pharmacology, encompassing both in-vivo and in-vitro techniques for screening drugs across various physiological systems like the nervous, cardiovascular, gastrointestinal, and endocrine systems. Students gain hands-on experience in animal handling and ethical considerations (as per CPCSEA guidelines), drug administration routes, and sample collection.

- References
- Ghosh, M. N. Fundamentals of Experimental Pharmacology. Kolkatta: Hilton & Company
 - Kulkarni, S. K. Hand book of Experimental Pharmacology. Delhi: Vallabh Prakashan
 - Kitchen, Von Ian. Textbook of in Vitro Practical Pharmacology. Oxford: Blackwell Scientific Publications.
 - Shargel, L. Andrew B.C. Yu. Applied Biopharmaceutics and Pharmacokinetics. New York: Mc Graw Hills Publishers.

Name of Course Soft Skills and Professional Development

Course Code MPLVA207T

Scope The subject aims to equip students with essential interpersonal, communication skill, professional etiquette and critical thinking and problem-solving ability that complement their technical knowledge and prepare them for personal and career success.

- References • Resumes, Cover Letters, Networking & Interviewing by Clifford W. Eischen and Lynn A. Eischen
- You Can Win a Job Interview by Ranjeet Mehta
- How to win Friend and influence people, Dale Carnegie
- How to Deal with Stress by Stephen Palmer and Cary Cooper
- The professional, Subroto Bagchi
- Effective executive, Peter Drucker
- Jack Welch on Leadership, Robert Slater

M. Pharm [Year 2 /Semester I]**Name of Course Research Methodology & Biostatistics**

Course Code MRM301T

Scope The subject imparts scientific thinking and data-driven decision-making skills. It encompasses the principles of designing sound research studies, from formulating research questions and hypotheses to selecting appropriate study designs (e.g., experimental, observational, clinical trials) and ensuring ethical conduct. A significant part involves mastering biostatistical tools for analyzing and interpreting data, including parametric and non-parametric tests, hypothesis testing, sample size determination, and understanding concepts like p-values and confidence intervals. This subject ultimately equips M.Pharm graduates to critically evaluate scientific literature, design and execute their own research projects effectively, and contribute evidence-based knowledge to the pharmaceutical sciences.

- References • Halton, M., Presentation Skills. Indian Society for Institute Education
- Mcfarlane, G., A Practical Introduction to Copyright. McGraw Hill
- Davis, R.M., Thesis Projects in Science and Engineering. St. Martin's Press.
- Anderson, J., Thesis and Assignment Writing. John Wiley & Sons.

Name of Course Journal Club-I

Course Code MPL302T

Scope Trains students in critical appraisal of published literature and improves analytical and presentation skills.

Name of Course Discussion/Presentation (proposal presentation)

Course Code MPL303T

Scope Encourages scientific reasoning and effective planning of research through proposal defence and peer interaction.

Name of Course Research Work

Course Code MPL304P

Scope Involves hands-on research to develop independent thinking, problem-solving, and innovation in pharmaceutical sciences.

M. Pharm [Year 2 /Semester II]**Name of Course Journal Club – II**

Course Code MPH401T

Scope Continuation of Journal Club I; deepens understanding of advanced research and current scientific trends.

Name of Course Research Work and Colloquium

Course Code MPH402P

Scope Involves systematic presentation of research progress and findings, promoting academic dialogue and feedback integration.

Name of Course Discussion/Final Presentation (Thesis Presentation)

Course Code MPH403T

Scope Focuses on effective presentation and defense of final research outcomes, preparing students for academic, industrial, or doctoral pursuits.

Pharmaceutical Analysis

M. Pharm [Year 1 /Semester I]

Name of Course	Modern Pharmaceutical Analytical Techniques
Course Code	MPA101T
Scope	This subject deals with various advanced analytical instrumental techniques for identification, characterization and quantification of drugs. Instruments dealt are NMR, Mass spectrometer, IR, HPLC, GC etc.
References	▪ Silverstein, R. M., Webster, F. X., Kiemle, D. J., & Bryce, D. L. Spectrometric Identification of Organic Compounds. Johnwiley & sons. ▪ Skoog, D. A. H., James, F., & Nieman, T. A. Principles of Instrumental Analysis. Eastern press. ▪ Hobart, W. H., Merritt LL, Dean John. A., Instrumental Methods of Analysis. CBS publishers. ▪ Beckett, A. H., & Stenlake, J. B. (Eds.). Practical Pharmaceutical Chemistry: Part II Fourth Edition (Vol. 2). A&C Black. ▪ Shethi, P. D. Quantitative Analysis of Drugs in Pharmaceutical Formulations. CBS Publishers.

Name of Course Advanced Pharmaceutical Analysis

Course Code	MPA102T
Scope	This subject deals with the various aspects of Impurity, Impurities in new drug products, in residual solvents, Elemental impurities, Impurity profiling and characterization of degradants, Stability testing of phytopharmaceuticals and their protocol preparation. It also covers the biological testing of various vaccines and their principle and procedure.
References	• Mendham, J. Vogels Textbook of Quantitative Chemical Analysis. Pearson Education India. • Beckett, A. H., & Stenlake, J. B. (Eds.). Practical Pharmaceutical Chemistry: Part II Fourth Edition (Vol. 2). A&C Black. • Connors, K. A. A Textbook of Pharmaceutical Analysis. NJ: Johnwiley and sons. • ICH Guidelines for impurity profiles and stability studies • Indian Pharmacopoeia, Volume III, Indian Pharmacopoeial commission, Ghaziabad, New Delhi

Name of Course Pharmaceutical Validation

Course Code MPA103T

Scope The main purpose of the subject is to understand about validation and how it can be applied to industry and thus to improve the quality of the products. The subject covers the complete information about validation, types, methodology and application.

- References
- Loftus, B. T., & Nash, R. A. Pharmaceutical Process Validation. Drugs and Pharm Sci. Series (Vol. 129) M. Dekker.
 - Lachman, L., Lieberman, H. A., & Kanig, J. L. The Theory and Practice of Industrial Pharmacy. Philadelphia: Lea & Febiger. Varghese Publishing House.
 - Validation Standard Operating Procedures, Step by step guide for achieving compliance in the pharmaceutical, Medical device and biotech industries. Syed Imtiaz Haider. CRC Press.
 - Cloud, P. Pharmaceutical Equipment Validation: The Ultimate Qualification Guidebook. CRC Press.
 - Chan, C. C., Lee, Y. C., Lam, H., & Zhang, X. M. (Eds.). Analytical Method Validation and Instrument Performance Verification. John Wiley & Sons.

Name of Course Food Analysis

Course Code MPA104T

Scope This course is designed to impart knowledge on analysis of food constituents and finished food products. The course includes application of instrumental analysis in the determination of pesticides in variety of food products.

- References
- Pearson, D. The Chemical Analysis of Foods Longman Group Ltd.
 - Nielsen, S. S. (Ed.). Introduction to the Chemical Analysis of Foods. Sudbury, MA: Jones and Bartlett.
 - Cuniff, P. Official Methods of Analysis of AOAC International. AOAC International.
 - Multon, J. L. Analysis of Food Constituents. John Wiley & Sons.
 - Horwitz, W. Official Methods of Analysis of the AOAC International. The Association.

Name of Course Pharmaceutical Analysis Practical I

Course Code MPA 105P

Scope This M.Pharm practical course is designed to impart advanced skills in pharmaceutical analysis through hands-on training in spectrophotometric, chromatographic, titrimetric and colorimetric techniques. Students will gain expertise in method development, validation, impurity profiling, stability studies, and food/drug quality assessment using modern analytical instruments such as UV-Vis, HPLC, GC, FTIR, and HPTLC. The course also emphasizes calibration of analytical instruments, preparation of SOPs, cleaning validation, and patent searches, thereby integrating technical competence with regulatory and industrial requirements.

Name of Course Seminar / Assignment - I

Course Code MPA106S

Scope This course enables M.Pharm students to critically review current literature in pharmaceutical analysis, select a focused topic with mentor guidance and prepare structured progress reports. It aims to develop research skills, scientific writing, and effective communication through periodic reviews and presentations.

M. Pharm [Year 1 /Semester 2]**Name of Course Advanced Instrumental Analysis**

Course Code MPA201T

Scope This subject deals with various hyphenated analytical instrumental techniques for identification, characterization and quantification of drugs. Instruments dealt are LC-MS, GC-MS, and hyphenated techniques.

- References
- Silverstein, R. M., Webster, F. X., Kiemle, D. J., & Bryce, D. L.. Spectrometric Identification of Organic Compounds. Johnwiley & sons.
 - Skoog, D. A. H., James, F., & Nieman, T. A. Principles of Instrumental Analysis. Eastern press.
 - Hobart, W. H., Merritt LL, Dean John. A., Instrumental Methods of Analysis. CBS publishers.
 - Sethi, P. D. Quantitative Analysis of Drugs in Pharmaceutical Formulations. CBS Publishers.

- Munson, J. W. Pharmaceutical Analysis: Modern Methods (Vol. 11). CRC Press.

Name of Course Modern Bio-Analytical Techniques

Course Code MPA202T

Scope This subject is designed to provide detailed knowledge about the importance of analysis of drugs in biological matrices.

- References
- Chamberlain, J. The Analysis of Drugs in Biological Fluids. CRC press.
 - Skoog, D. A., Holler, F. J., & Crouch, S. R. Principles of instrumental analysis. Cengage learning.
 - Higuchi, T., Bodin, J. I., & Brochmann-Hanssen, E. Pharmaceutical analysis. Interscience Publishers.
 - Munson, J. W. Pharmaceutical analysis: modern methods (Vol. 11). CRC Press.
 - Bertholf, R., & Winecker, R. Chromatographic methods in clinical chemistry and toxicology. John Wiley & Sons.

Name of Course Quality Control and Quality Assurance

Course Code MPA203T

Scope This course deals with the various aspects of quality control and quality assurance aspects of pharmaceutical industries. It covers the important aspects like cGMP, QC tests, documentation, quality certifications, GLP and regulatory affairs.

- References
- Quality Assurance Guide by organization of Pharmaceutical Procedures of India, Volume I & II, Mumbai.
 - Weinberg, S. Good laboratory practice regulations. CRC Press.
 - World Health Organization. Quality assurance of pharmaceuticals: a compendium of guidelines and related materials. Good manufacturing practices and inspection (Vol. 1 & 2). World Health Organization.
 - Steinborn, L. GMP/ISO Quality Audit Manual for Healthcare Manufacturers and Their Suppliers, (Volume 1- With Checklists and Software Package). Taylor & Francis.

- Sarker, D. K. Quality Systems and Controls for Pharmaceuticals. John Wiley & Sons.

Name of Course Herbal and Cosmetic Analysis

Course Code MPA204T

Scope This course is designed to impart knowledge on analysis of herbal products. Regulatory requirements, herbal drug interaction with monographs. Performance evaluation of cosmetic products is included for the better understanding of the equipments used in cosmetic industries for the purpose.

- References
- Evans, W. C. Trease and Evans' Pharmacognosy. Elsevier Health Sciences.
 - World Health Organization. Quality control methods for medicinal plant materials. Geneva.
 - Sharma, P. P. Cosmetics: Formulation, Manufacturing and Quality Control. Vandana Publications Pvt Ltd. Delhi.
 - Barel, A. O., Paye, M., & Maibach, H. I. Handbook of cosmetic science and technology. CRC Press.
 - www.ayush.gov.in

Name of Course Pharmaceutical Analysis Practical II

Course Code MPA205P

Scope This M.Pharm practical course provides students with advanced exposure to pharmaceutical and bioanalytical techniques, including spectral interpretation (UV, FTIR, NMR, MS), thermal analysis, and biomolecular characterization. It equips learners with skills in bio-sample preparation, drug extraction, dissolution and permeability testing, and in-vitro assays for pharmacological evaluation. The course further emphasizes pharmaceutical quality control, regulatory documentation, monograph studies, impurity profiling, and cosmetic product analysis, integrating laboratory practice with industry-oriented applications.

Name of Course Seminar / Assignment II

Course Code MPA206S

Scope This course in Pharmaceutical Analysis focuses on manuscript drafting, refinement, and submission derived from the literature review and work done

in Semester I. Under faculty mentorship, students strengthen their analytical interpretation, research methodology and scientific writing. Oral presentations and viva-voce further enhance communication skills, fostering competency in presenting and publishing research in pharmaceutical analysis.

Name of Course Soft Skills and Professional Development

Course Code MPHVA207T

Scope This course aims to enhance students' communication, interpersonal, and professional skills required for career growth in the pharmaceutical industry. It focuses on personality development, teamwork, leadership, ethical conduct, and effective workplace behavior to prepare students for professional challenges and opportunities.

References

- Resumes, Cover Letters, Networking & Interviewing by Clifford W. Eischen and Lynn A. Eischen
- You Can Win a Job Interview by Ranjeet Mehta
- How to win Friend and influence people, Dale Carnegie
- How to Deal with Stress by Stephen Palmer and Cary Cooper

M. Pharm [Year 2 /Semester 1]

Name of Course Research Methodology and Biostatistics

Course Code MRM301T

Scope This course equips M.Pharm students with principles of research design, methodology, and biostatistical analysis. It develops skills in data collection, interpretation, and scientific reporting to support evidence-based research and decision-making across all pharmaceutical disciplines.

References

- Best, J.W., Kahn, J.V., Research In Education. New Delhi, Prentice Hall of India Pvt. Ltd.
- Halton, M., Presentation Skills. Indian Society for Institute Education
- Mcfarlane, G., A Practical Introduction to Copyright. McGraw Hill
- Davis, R.M., Thesis Projects in Science and Engineering. St. Martin's Press.
- Anderson, J., Thesis and Assignment Writing. John Wiley & Sons.

Name of Course Journal Club - I

Course Code MPA302T

Scope This course enables students to critically review, analyze, and present current research in pharmaceutical analysis. It strengthens literature evaluation, analytical reasoning, and scientific communication skills, fostering evidence-based understanding of modern analytical techniques and their applications.

Name of Course Discussion/Presentation (Proposal Presentation)

Course Code MPA303T

Scope This course enables students to develop and present a research proposal in pharmaceutical analysis by critically reviewing literature, identifying research gaps, and formulating clear objectives and methodology under mentor guidance. It further enhances analytical thinking, scientific communication, and effective presentation skills in the field of pharmaceutical analysis.

Name of Course Research Work

Course Code MPA304P

Scope This course involves execution of the approved research proposal in pharmaceutical analysis, including data collection, analysis, and interpretation. It helps in developing competencies in research methodology, analytical problem-solving and scientific reporting.

M. Pharm [Year 2 /Semester 2]**Name of Course Journal Club-II**

Course Code MPA401T

Scope This course continues the development of critical appraisal and presentation skills in pharmaceutical analysis. Students engage in advanced discussions of recent publications of analytical methods thereby strengthening analytical thinking, scientific communication, and professional competence in the domain of pharmaceutical analysis.

Name of Course Research work and Colloquium

Course Code MPA402P

Scope This course involves the continuation and completion of the research project in pharmaceutical analysis, encompassing carrying out research work, its data analysis and interpretation as well as documentation. It emphasizes scientific discussion through colloquium sessions, fostering critical thinking, problem-solving and effective research communication skills in the field of pharmaceutical analysis.

Name of Course Discussion/Final Presentation (Proposal Presentation)

Course Code MPA403T

Scope This course enables students to present the final outcomes of their research work in pharmaceutical analysis, demonstrating mastery of analytical concepts, experimental methodology, and scientific reporting. It strengthens critical evaluation, oral presentation, and professional communication skills for effective dissemination of research findings.

Regulatory Affairs

M. Pharm [Year 1 /Semester I]

Name of Course Good Regulatory Practices

Course Code MRA101T

Scope This course is designed to impart fundamental knowledge on various Good Regulatory Practices viz., cGMP, GLP, GALP and GDP for Pharmaceuticals, Cosmetics, Food & Nutraceuticals, Medical devices, In-vitro Diagnostic Medical Devices (IVDs) and biological products and understand the rationale behind these requirements and will propose ways and means of complying with them.

References • Weinberg, S. Good Laboratory Practice Regulations. Informa Healthcare.

• Robinson, D. Good Pharmaceutical Manufacturing Practice: Rationale and Compliance by John Sharp. CRC Press.

• Sharma, P. P. How to Practice GLP Good Laboratory Practice. Vandana Publications.

• Drugs & Cosmetics Act, Rules & Amendments.

Name of Course Documentation and Regulatory Writing

Course Code MRA102T

Scope This course is designed to impart fundamental knowledge on documentation and general principles involved in regulatory writing and submission to agencies.

- References
- Ginsbury, K., & Bismuth, G. Compliance Auditing for Pharmaceutical Manufacturers: A Practical Guide to In-Depth Systems Auditing. CRC Press.
 - Baird, R. M., Hodges, N. A., & Denyer, S. P. (Eds.). Handbook of Microbiological Quality Control in Pharmaceuticals and Medical Devices. CRC Press.
 - Joseph, M., Feo, J. Juran's Quality Handbook. ASQ Publications.
 - International Medical Device Regulators Forum (IMDRF) Medical Device Single Audit Program (MDSAP).

Name of Course Clinical Research Regulations

Course Code MRA103T

Scope This course is designed to impart the fundamental knowledge on the clinical development process of drugs, pharmaceuticals and Medical Devices, phases and conduct of clinical trials and research, regulations and guidance governing the conduct of clinical research in India, USA and EU. It prepares the students to learn in detail on various laws, legislations and guidance related to safety, efficacy, ethical conduct and regulatory approval of clinical research.

- References
- Rozovsky, F. A., & Adams, R. K. Clinical Trials and Human Research: A Practical Guide to Regulatory Compliance.
 - Gallin, J. I., & Ognibene, F. P. (Eds.). Principles and Practice of Clinical Research. Academic Press.
 - Pisano, D. J., & Mantus, D. FDA Regulatory Affairs. CRC Press.
 - Country Specific Guidelines from Official Websites.

Name of Course **Regulations and Legislation for Drugs & Cosmetics, Medical Devices, Biologicals & Herbals, and Food & Nutraceuticals In India and Intellectual Property Rights**

Course Code MRA104T

Scope This course is designed to impart fundamental knowledge on regulations and legislation in India with respect to Drugs & Cosmetics, Medical Devices, Biologicals & Herbals, and Food & Nutraceuticals. It prepares the students for basic regulatory requirements in India of Drugs & Cosmetics, Medical Devices, Biologicals & Herbals, and Food & Nutraceuticals. for manufacture, import & registration, export, sale, marketing authorization, clinical trials and intellectual property rights.

References

- Manual of Patent Practice & Procedure, 3rd Edition, by The Patent Office of India.
- Ethical Guidelines for Biomedical Research on Human Participants by Indian Council of Medical Research New Delhi 2006.
- CPCSEA Guidelines for Laboratory Animal Facility by Committee for the purpose of control and supervision on experiments on animals (CPCSEA).
- Guidelines from official website of CDSCO.

Name of Course **Regulatory Affairs Practical I**

Course Code MRA105P

Scope M.Pharm. RA practical course is to provide students with comprehensive knowledge and practical skills in pharmaceutical regulatory affairs, documentation practices, quality systems, clinical trial submissions, and intellectual property rights. It covers preparation of SOPs, protocols, validation reports, checklists, regulatory dossiers, case studies, and comparative global requirements, enabling learners to gain hands-on experience in GMP, GLP, GCP, GAMP, GDP, QC documentation, CTD/eCTD submissions, clinical trial applications, and pharmacopeial monographs. The course also emphasizes ethical compliance, audit readiness, drug product handling, stability and validation reporting, BA/BE studies, IPR filing, and global regulatory harmonization. Overall, it prepares students with industry-ready competencies in regulatory documentation, quality assurance, and compliance with national and international pharmaceutical standards.

Name of Course Seminar/Assignment-I

Course Code MRA106S

Scope This course enables students to critically review literature in regulatory affairs, select a relevant topic with mentor guidance, and prepare a structured progress report. It emphasizes periodic reviews, written submissions, and poster presentations to develop research understanding and scientific communication skills in regulatory affairs.

M. Pharm [Year 1 /Semester 2]**Name of Course Regulatory Aspects of Drugs and Cosmetics**

Course Code MRA201T

Scope This course is designed to impart the fundamental knowledge on the drug development process, regulatory requirements for approval of new drugs, drug products and cosmetics in regulated and semi-regulated countries. It prepares the students to learn in detail on the regulatory requirements, documentation requirements, and registration procedures for marketing the drug products and cosmetics in regulated and semi-regulated countries.

References • Shargel, L., & Kanfer, I. Generic drug product development: solid oral dosage forms. CRC Press.

• Mathieu, M. P., Keeney, R., & Milne, C. P. New drug development: a regulatory overview. Parexel International Corp.

• William, K. Preparation and Maintenance of the IND Application in eCTD Format.

• Country Specific Guidelines from official websites

Name of Course Regulatory Aspects of Herbal and Biologicals

Course Code MRA202T

Scope This course is designed to impart fundamental knowledge on regulatory requirements, licensing and registration, regulation on labelling of biologics in India, USA and Europe. It prepares the students to learn in detail on regulatory requirements for biologics, vaccines and blood products.

References • Pisano, D. J., & Mantus, D. S. FDA regulatory affairs: a guide for prescription drugs, medical devices, and biologics. Taylor & Francis US.

- www.fda.gov/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/
- Country Specific Guidelines from official websites
- Guidelines on Similar Biologics: Regulatory Requirements for Marketing Authorization in India.

Name of Course Regulatory Aspects of Medical Devices

Course Code MRA203T

Scope This course is designed to impart the fundamental knowledge on the medical devices and in vitro diagnostics, basis of classification and product life cycle of medical devices, regulatory requirements for approval of medical devices in regulated countries like US, EU and Asian countries along with WHO regulations. It prepares the students to learn in detail on the harmonization initiatives, quality and ethical considerations, regulatory and documentation requirements for marketing medical devices and IVDs in regulated countries.

- References
- Pisano, D. J., & Mantus, D. S. FDA regulatory affairs: a guide for prescription drugs, medical devices, and biologics. Taylor & Francis US.
 - Tobin, J. J., & Walsh, G. Medical product regulatory affairs: pharmaceuticals, diagnostics, medical devices. John Wiley & Sons.
 - Country Specific Guidelines from official websites.
 - www.iso.org

Name of Course Regulatory Aspects of Food & Nutraceuticals

Course Code MRA204T

Scope This course is designed to impart the fundamental knowledge on regulatory requirements, registration and labeling regulations of nutraceuticals in India, USA and Europe. It prepares the students to learn in detail on regulatory aspects for nutraceuticals and food supplements.

- References
- Hasler, C. M. Regulation of functional foods and nutraceuticals: a global perspective (Vol. 5). John Wiley & Sons.
 - Bagchi, D. Nutraceutical and functional food regulations in the United States and around the world. Academic press.

- Pathak, Y. V. Handbook of Nutraceuticals Volume II: Scale-Up, Processing and Automation (Vol. 2). CRC Press.
- Country Specific Guidelines from official websites

Name of Course **Regulatory Affairs Practical II**

Course Code MRA205P

Scope M.Pharm. RA practical course is to impart comprehensive knowledge and hands-on skills in global regulatory affairs related to pharmaceuticals, biologics, medical devices, herbal products, and food supplements. It covers regulatory filing processes including IND, NDA, ANDA, BLA, orphan drug submissions, r-DNA products, vaccines, and Ayush/herbal products, along with dossier preparation and electronic submissions (eCTD) for USFDA, EMA, MHRA, and emerging markets (WHO, BRICS, ASEAN, GCC, CIS, China, South Korea, Brazil). The curriculum emphasizes audit checklist preparation, comparison of global registration requirements, and case studies on change management, CAPA, and clinical trial applications. Students gain exposure to regulatory pathways for medical devices and IVDs through 510(k), PMA, CE certification, STED applications, and clinical investigation plans across US, EU, ASEAN, China, Japan, and India. Additionally, it integrates regulatory requirements for food and dietary supplements across major global markets. Overall, the course equips learners with industry-ready competencies in preparing regulatory dossiers, handling global submissions, managing compliance, and harmonizing diverse international regulations.

Name of Course **Seminar/Assignment-II**

Course Code MRA206S

Scope This course focuses on manuscript completion and submission based on the literature review and research initiated in Semester I. Students refine their work under mentor guidance, present findings orally, and undergo viva voce to enhance research competency, analytical skills, and scientific communication in the field of regulatory affairs.

Name of Course Soft Skills and Professional Development

Course Code MRAVA207T

Scope This course aims to enhance students' communication, interpersonal, and professional skills required for career growth in the pharmaceutical industry. It

focuses on personality development, teamwork, leadership, ethical conduct, and effective workplace behavior to prepare students for professional challenges and opportunities.

- | | |
|------------|--|
| References | <ul style="list-style-type: none"> • Resumes, Cover Letters, Networking & Interviewing by Clifford W. Eischen and Lynn A. Eischen • You Can Win a Job Interview by Ranjeet Mehta • How to win Friend and influence people, Dale Carnegie • How to Deal with Stress by Stephen Palmer and Cary Cooper |
|------------|--|

M. Pharm [Year 2 /Semester 1]

Name of Course	Research Methodology & Biostatistics
----------------	--------------------------------------

Course Code	MRM301T
-------------	---------

Scope	This course equips M.Pharm students with principles of research design, methodology, and biostatistical analysis. It develops skills in data collection, interpretation, and scientific reporting to support evidence-based research and decision-making across all pharmaceutical disciplines.
-------	---

- | | |
|------------|--|
| References | <ul style="list-style-type: none"> • Best, J.W., Kahn, J.V., Research in Education. New Delhi, Prentice Hall of India Pvt. Ltd. • Halton, M., Presentation Skills. Indian Society for Institute Education • Mcfarlane, G., A Practical Introduction to Copyright. McGraw Hill • Davis, R.M., Thesis Projects in Science and Engineering. St. Martin's Press. |
|------------|--|

Name of Course	Journal Club-I
-----------------------	-----------------------

Course Code	MRA302T
-------------	---------

Scope	This course develops students' ability to critically review, analyze, and discuss current research articles in regulatory affairs. It enhances literature evaluation skills, scientific reasoning, and oral communication, fostering evidence-based understanding of regulatory guidelines, drug development, and compliance issues.
-------	--

Name of Course Discussion/Presentation (Proposal Presentation)

Course Code MRA303T

Scope This course enables students to develop and present a research proposal in regulatory affairs, demonstrating the ability to critically review literature, identify research gaps, and formulate objectives and methodology under mentor guidance. It enhances skills in scientific communication, analytical thinking, and effective presentation of regulatory topics.

Name of Course Research Work

Course Code MRA304P

Scope This course involves execution of the approved research proposal, including data collection, analysis, and interpretation in regulatory affairs. Students prepare a manuscript suitable for publication and develop competencies in research methodology, regulatory documentation, problem-solving, and scientific reporting.

M. Pharm [Year 2 /Semester 2]**Name of Course Journal Club-II**

Course Code MRA401T

Scope This course continues the development of critical appraisal and presentation skills, focusing on advanced topics in regulatory affairs. Students engage in in-depth discussions of recent publications, regulatory updates, and case studies, strengthening their analytical thinking, scientific communication, and professional competence in the regulatory domain.

Name of Course Research work and Colloquium

Course Code MRA402P

Scope This course involves the continuation and completion of the research project, including data analysis, interpretation, and documentation. It emphasizes scientific discussion through colloquium sessions, fostering critical thinking, problem-solving, and research communication skills in regulatory affairs.

Name of Course **Discussion/Final Presentation (Proposal Presentation)**

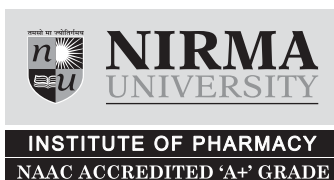
Course Code MRA403T

Scope This course enables students to present the final outcomes of their research work, demonstrating mastery of regulatory affairs concepts, methodology, and scientific reporting. It strengthens abilities in critical evaluation, oral presentation, and professional communication of research findings.

SECTION F

**FORMS &
DECLARATION**

(For reference purpose only)



Declaration to be submitted by the Students Admitted to Different Programmes of the University (Code of Conduct)

DECLARATION

I, _____ admitted in _____
(programme) of the Institute of _____, Nirma University do hereby declare and undertake that I will abide by the Code of Conduct, Procedure to inquire and decide with misconduct/indiscipline by students Rules 2020 and other related provisions like dress code on the campus, rules for maintaining vehicles on the campus, and public display of affection (PDA) and etiquette on the campus etc.

I will abide by all the rules and regulations and if I am found violating any rules then, I shall be subjected to the major/minor penalties as per the provision of aforesaid rules.

In case any legal issue arises, the jurisdiction shall be Ahmedabad, Gujarat only.

Date:

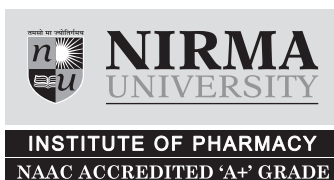
Place:

Signature of the student

Name of the student: _____

Signature of the Parent/ Local Guardian _____

Name of the Parent/ Local Guardian: _____



Undertaking for Rules & Regulations of the Examination

I, _____ Roll No. _____
studying in First year of _____ programme at Institute of _____,
Nirma University, Ahmedabad do hereby undertake that I have read and understood all the Rules & Regulations
related to Academic Dishonesty at examinations/tests/assignments and punishment in case of using unfair means, I
have also gone through the Academic Regulations related to Granting of Term and Cancellation of admission, and I
shall observe, follow and abide by all these rules and regulations.

I shall abide by all the rules and regulations and if I am found violating any rules then, I shall be subjected to the
necessary action/penalties as per provision of rules/regulations.

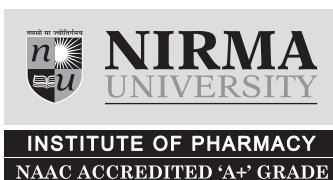
In case any legal issue arises, the jurisdiction shall be Ahmedabad, Gujarat only.

Signature _____

Name _____

Address _____

Signature of Parents _____



UNDERTAKING

(To refrain from consumption of Drugs and Alcohol)

I, _____ bearing Roll No. _____
admitted in _____ (programme) of Institute of _____,
Nirma University, do hereby declare and undertake that I will refrain myself from consumption of Drugs and Alcohol.

I have read the relevant instruction with regard to ban on consumption of drugs and alcohol. I am aware that the use/possession of narcotics drugs and alcohol is a punishable offence under the law of the Government of Gujarat and if I am found guilty of using such thing/s, then it will amount to a criminal offence and I am liable for the appropriate penalty as per laws.

I hereby give an undertaking to the Institute that I will refrain myself from consumption of Drugs and Alcohol.

Date _____

Place _____

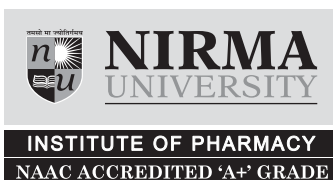
Signature of Student

I undertake that I will take utmost care to see that my ward does not get involved in any such incident.

Name of Parent/Guardian _____

Signature of Parent/Guardian _____

Address of Parent/Guardian with contact nos. _____



FORM OF MEDICAL FITNESS CERTIFICATE

(To be produced at the time of reporting at the institute)

I / Dr. _____ (Name & Designation) posted in _____ (Name of Hospital & Place) certify that I have carefully examined _____ (Name of Candidate) S/o. D/o. Shri _____ and according to his/her medical examination, I have diagnosed nothing that may prevent him/her pursuing under graduate/post graduate degree courses.

He/She has no disease or mental or bodily infirmity making him/her unfit or likely to make him/her unfit in the near future for visits / training / internships / projects etc. at industries, and active out door duty, as a student.

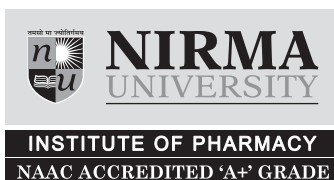
Mark of identification: _____

Signature of Medical Officer

Seal of Designation and Hospital

Dated:

Photograph of
candidate duly
attested by the
Medical Officer



UNDERTAKING FOR CONDUCT AND DISCIPLINE RULES FOR THE STUDENTS

I,.....IT,NU Merit No. / Roll No.
admitted in (programme) of the Institute of Technology, Nirma University do
hereby declare and undertake that I shall comply with followings:

1. I always carry the identity card while I remain in the campus and produce if required by the competent authorities.
2. I attend all the scheduled classes from the beginning to the end of the term/semester. I am aware that absence due to illness or any unavoidable circumstances shall be considered only if the application is supported by medical certificates and/or if the leave application is submitted to the Director through the parents.
3. I shall be polite individually or in groups and show respect to the faculty (teachers) as well as to the staff of the Institute. I shall follow the Instructions in connection with academic or other matters as instructed by the teachers from time to time. I shall not participate in activities that may cause harm to the academic environment or teacher-student relation.
4. I am aware that the action of any individual, group or wing which amounts to interference in the regular administration of the Institute/University is prohibited.
5. I am aware that Causing disfiguration or damage to the property of the Institute/University or belongings of staff members or students is forbidden.
6. I am aware that No student shall indulge in any activity in the college campus that might be illegal or may lead to disorderliness.
7. I am aware that I should not be in possession of any intoxicant or intoxicating materials and should not consume such things.
8. I am aware that use of any kind of mobile phones; whether ordinary, camera phone or smart phone in the academic areas during academic activities, is prohibited. However, for academic purpose or in exceptional cases, the students can be allowed to use mobile with prior permission. Unauthorized use of mobile phone in the academic area specifically in the classrooms is prohibited failing to which the fine of Rs. 5000/- can be imposed.

During the examinations; specified rules for the same shall be followed.

9. I shall abide by the Code of Conduct, Procedure to inquire and decide with misconduct/indiscipline by students Rules 2020 and other related provisions like dress code on the campus, rules for maintaining vehicles on the campus, and public display of affection (PDA) and etiquette on the campus etc.

Signature of Student _____

Date : _____

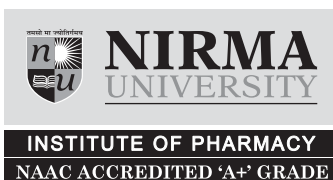
Declaration

I,.....,solemnly affirm, declare and undertake that I shall abide by all the rules and regulations and if I found violating any rules then, I shall be subjected to the necessary action/penalties as per provision of rules/regulations. In case of any legal issue arises, the jurisdiction shall be Ahmedabad, Gujarat only.

Sign

Date:

Place: Ahmadabad



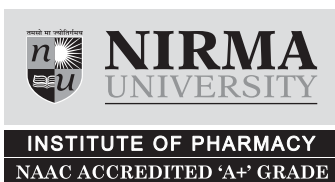
UNDERTAKING FOR ACADEMIC RULES AND REGULATIONS

Registration No./Merit No. _____

I, Mr./Ms. _____ son/daughter of
_____ have secured admission at the
Institute of Technology, Nirma University in the year _____ for the Two Year MPharm . I hereby confirm that I
have gone through the academic rules and regulations of the programme/Institute very carefully and I assure you
that I will abide by the same.

Name & signature of student

Endorsement by parent/guardian



UNDERTAKING FOR NOT INVOLVING HIMSELF/ HERSELF FOR RAGGING

I, _____ admitted in the First Year of the Two Year MPharm Programme at the Institute of Pharmacy, Nirma University, do hereby declare and undertake that I am fully aware of the rules and regulations regarding ragging and aware of the University's policy towards zero tolerance on ragging which are in line with the Directives of the Hon'ble Supreme Court of India. I am also aware about the punishment, if I found guilty of ragging or violating the rules.

Date:

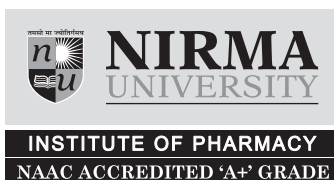
Place:

Signature of the student

Name of the student: _____

Signature of the Parent/ Local Guardian _____

Name of the Parent/ Local Guardian: _____



INSTITUTE OF PHARMACY ATTENDANCE POLICY

1.0 Purpose

The purpose of this policy is to establish clear and consistent attendance guidelines for students, ensuring that they understand the importance of regular and punctual attendance in achieving academic success.

2.0 Scope

This is applicable to all students registered at Institute of Pharmacy, Nirma University.

3.0 Definition

Course	It is a series of lessons or lectures on a particular subject in any programme in Institute of Pharmacy, Nirma University.
Course Coordinator	Faculty in charge for course any programme at Institute of Pharmacy, Nirma University.
Events	It is organized gatherings such as academic conferences, workshops, social activities, sports and cultural performances, aimed at enhancing the educational experience, fostering community engagement, and promoting professional and personal development among students and faculty.
Assessment	Assessment refers to a systematic process of evaluating, measuring, and documenting the knowledge, skills, attitudes, and beliefs of learners (Formative and Summative Assessment).

4.0 Policy Statement

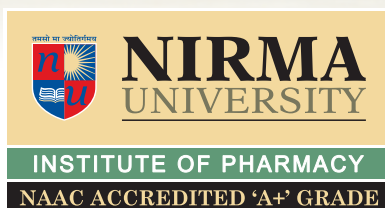
- 4.1 Students are required to attend all classes, practical work, and tutorials conducted throughout the day.
- 4.2 Attendance will be taken by the course coordinator or faculty in charge of each class. The objective is not mere attendance but fostering a positive interaction and learning environment.
- 4.3 Attendance will be taken within the first 5 minutes of the class. Students must be present before the faculty enters. Students entering after 5 minutes will not be granted attendance under any circumstances.

- 4.4 Students must seek prior permission from the Director to be absent from any theory, practical, or tutorial sessions by submitting a leave application form available with the Personal Assistant (PA) to the Director. Absence without prior permission will be treated as an act of indiscipline and processed accordingly.
- 4.5 In case of emergencies or medical reasons, students may take medical leave. Upon returning, they must submit the required documents (medical certificate, prescription) along with the official leave form to Personal Assistant (PA) to the Director, covering the period they could not attend the Institute.
- 4.6 As per University regulations, students are required to attend 85% of the classes conducted in each course. However, the Director may consider up to 75% attendance with valid reasons for absence, if the appeal committee is convinced by the reasons provided by the student.
- 4.7 Students with less than 75% attendance will not be allowed to sit for the final semester or year-end examinations (theory and practical).
- 4.8 Students who are barred from taking the final semester or year-end examination due to insufficient attendance (in either theory or practical classes, or both) must retake the semester with mandatory attendance. They are required to attend all theory and/or practical classes again, participate in all continuous assessments, and meet the attendance requirements before they are eligible to sit for the final semester or year-end examination.
- 4.9 Attendance will be reviewed three times in a semester, and the report will be sent to parents. The dates of the attendance review committee meetings will be provided in the academic calendar.
- 4.10 Students with attendance shortfalls will be called before the appeal committee. The committee will hear the cases on an individual basis and decide accordingly.
- 4.11 Students wishing to participate in internal or external academic, sports, or cultural events must seek approval seven (7) days before the event. They must write a letter, get an endorsement signature from the respective event coordinator, and obtain approval from the Director, Institute of Pharmacy.
- 4.12 The approved letter must be submitted with the leave form and other necessary documents to Personal Assistant (PA) to the Director, at least three (3) days before the commencement of the event.
- 4.13 Post-event approval is not accepted, and attendance will not be granted for the day or for lectures/tutorials/practicals missed.
- 4.14 Attendance for practicing any type of event will not be considered without prior approval from the respective event coordinator and the Director, Institute of Pharmacy, Nirma University.
- 4.15 Every student is allowed to participate in a maximum of 3 internal events (at the institute or University level) and 2 external events (outside Nirma University) per semester/year.
- 4.16 The Institute will not be responsible for students missing any component of examination due to their leave.

5.0 Related Policies, legislations, rules or regulations

- 5.1 Examination Regulation, IPNU
- 5.2 Academic Regulation, IPNU





Institute of Pharmacy
Nirma University
Sarkhej-Gandhinagar Highway,
Ahmedabad – 382481, Gujarat, India
Phone: +917971652714/15
Fax: 02717-241916
Website: <https://pharmacy.nirmauni.ac.in/>