

**University Department of Interdisciplinary Research & Technology**  
**M.Sc. Pharmaceutical Medicine Course**

**Advertisement for Website :-**



**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES,  
MHASRUL, VANI ROAD, NASHIK- 422 004**

***Admissions open for Two Years Post Graduate Degree Course In  
M.Sc. Pharmaceutical Medicine  
A challenging course to reach International Platform***

- Name :-** Post Graduate Degree Course in Pharmaceutical Medicine  
(M. Sc. Pharmaceutical Medicine)
- Duration :-** Two Years  
Course shall be conducted by University Dept. of Interdisciplinary Research & Technology, MUHS collaboration with Seth G. S. Medical College & KEM Hospital, Mumbai (Student shall be posted for 2 terms at Nashik & for 2 terms at Mumbai)  
**Students will have to make their own residential arrangements.**
- Language of Course :-** English
- Eligibility :-** MBBS, BDS, BAMS, BUMS, BHMS, B.Sc. Life Sciences  
(Bio-Chemistry, Microbiology, Botany, Zoology,  
Chemistry, Physiology, Pharmacology, Biotechnology)  
Pharmacy Graduates or higher (B. Pharm or M.Pharm)
- Last date :-** Last date of Submission of application form - **31<sup>st</sup> August, 2015**

- Degree shall be awarded by Maharashtra University of Health Sciences, Nashik
- **Brochure is available on the University website.([www.muhs.ac.in](http://www.muhs.ac.in))**

SD/-  
**Dr. K.D. Garkal**  
Registrar

## “PHARMACEUTICAL MEDICINE”

The only Masters course in Maharashtra for Pharmaceutical Medicine which covers all spheres of Pharmaceutical industry

**Are You a Medical / Pharmacy /  
life Sciences graduate?**

**Have minimal options in hand!!**

Then **JOIN** the aspiring Pharmaceutical  
industry and be a part of the spectacular  
growth in coming years.



### FUTURE OF INDIAN PHARMACEUTICAL MARKET

- India's pharmaceutical market will be more than double from the current year's \$18 billion to over\$ 45 billion by the year 2020. India will be a top 3 pharma market by incremental growth by 2020 and in absolute size the country will become the 6th largest market globally by 2020 -----a major study by global consultants McKinsey & Company
- Indian pharmaceutical industry may be among top-10 by 2020 -----CII-PwC
- The projected human resource requirement in India in the pharma sector is expected to reach 21,50,000 by 2020 -----Brand India Pharma (October 11, 2013 Press release)
- Pharma sector human resource requirement expected to top21 lakh by 2020 -----Pharmabiz (Friday, October 18, 2013)

#### Course Advantages:

- 1) Provides insights of all sections of Pharmaceutical industry -
  - Medical Writing
  - Regulatory Affairs
  - Pharmacovigilance
  - Medico-marketing/Affairs
  - Clinical Research
  - Data management
  - Medical Coding
- 2) Provides facility to pursue Phd program
- 3) Opens up doors for higher education in abroad
- 4) UGC approved Course with Scholarship available as per government rules

#### Opportunities:

Almost 400 students successfully passed the Course and functional in various pharmaceutical, CRO, IT and related organisations including -

##### INDUSTRIAL

- Novartis
- Cipla
- Emcure
- RPG life sciences
- Sero clinpharm
- TCS
- Sciformix
- Cognizant
- NACO

##### GOVT :-

- WHO
- ICMR
- Ministry of health & family welfare india
- NACO
- ACTREC
- TMH

**“Students working in abroad also”**

#### Course Contents:

- General Pharmacology & Clinical Pharmacology
- Medical Department
- Pharmaceutical Development of Drug
- Legal Ethical & Regulatory Issues
- Drug Safety, Epidemiology
- Pharmacoeconomics & Healthcare
- Information, Promotion of Drugs
- Herbal Drugs Standardization

#### Course Highlights:

- Hands on training for clinical projects
- Guidance by renowned industry experts
- Industrial internship program in pipeline
- Participation of students in national & international conferences

#### Eligibility:

Graduates of Health Sciences –MBBS, BDS,BAMS,BUMS,BHMS  
Pharmacy Graduates –B pharm or Higher  
M Sc & B.sc Life Sciences

### OPINION OF GUEST FACULTY & INDUSTRY EXPERTS ABOUT THE COURSE:



**“A professional course prepared for career in health care industry” -**

Dr. Anish Desai M.D.,  
FCP,  
Director Medical Affairs,  
Clinical Operations &  
Medical Safety  
Johnson & Johnson Medical India



**“Msc Pharma course prepares you for the real challenges of the Pharma (medical) world”**

Dr. Qayum I. Mukaddam  
MD Medical Director,  
Merck India



**“The MUHS endeavors to offer a comprehensive course with practical utility that prepares the candidate to integrate seamlessly into the working environment”**

Dr. Gulrez Tyebkhan  
Lead consultant and  
Founder - Rayz healthcare consultancy  
Senior consultant Dermatologist - Kaya Skin



**“A step to join global clinical drug development and pharmacovigilance professionals”**

Dr. Ganesh H. Divekar  
DGM - Clinical Strategy  
Bharat Serums and  
Vaccines Ltd

#### From Former students Desk

A course which could develop all skills required to become an efficient candidate for medical dpt. of MNCs & Indian Pharma

**Dr. Mangesh Bhale Rao, Deputy Manager, Medico Marketing, RPG life sciences, Mumbai**

Great course for life time achievement in clinical and non clinical profession

**Dr. Mahesh Ghadge, Sr. Medical analyst, IKS mumbai**

A course which offers you pharmaceutical opportunities

**Dr. Pravin Bolshette Sr. Publication Writer, SIRO Clinpharm PVT LTD.**

#### Duration

2 years

1st year- UDIRT, MUHS campus, Nashik

2nd Year – IDD, KEM Hospital, Mumbai



**Maharashtra University of Health Sciences, Nashik.**  
**Vani Road, Mhasrul, Nashik - 422 004.**

**University Department of Interpathy Research & Technology**  
**(UDIRT)**

**Tel. No.** 0253 – 2539301,2539108,2539303, 2539298 **Fax No.** 0253 -2539298  
**Website:** <http://www.muhs.ac.in>, **Email:** [udirt@muhs.ac.in](mailto:udirt@muhs.ac.in)



## **INFORMATION BROCHURE**

**M. Sc. Pharmaceutical Medicine: 2015 - 2016**



The University reserves right to amend, alter or repeal any of the provision at any time by publishing it on the University website. The students / candidates are required to visit the University website interminably.





## **IMPORTANT INFORMATION AT A GLANCE**

1	Date of availability of Information Brochure & Application Form	15/04/2015
2	Last date of submission of Application Form	31/08/2015

**Note :** (1) Day, Date, Time & Name of the Centre of Entrance Examination.  
(2) Date of Declaration of Result / Merit list/Verification  
(3) Date & Venue of Selection Process (Counselling & Provisional Admissions etc. will be informed separately)

# **Application Form and Information Brochure for M.Sc. Pharmaceutical Medicine 2015-16**

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**Maharashtra University of Health Sciences, Nashik**  
**University Department of Interpathy Research and Technology (UDIRT)**

## Master of Science in Pharmaceutical Medicine

### 1. Introduction:-

Maharashtra University of Health Sciences, Nashik has started advanced **“Master of Science in Pharmaceutical Medicine”** in collaboration with tertiary care teaching medical institute Seth G.S. Medical College & KEM Hospital, Parel, Mumbai. Pharmaceutical medicine is the medical scientific discipline concerned with the discovery, development, evaluation, registration, monitoring and medical aspects of marketing of medicines for the benefit of patients and the health of the community. This course is a professional course, approved by the Govt. of Maharashtra and University Grants Commission (UGC), New Delhi. This will be a comprehensive training course in pharmaceutical medicine wherein, education will be provided by leading experienced Pharmaceutical Industry, Regulatory Authorities, Academic Researchers and Research Organizations. This would help students to expand, understand and able to participate in development of drug with efficacy & safety profile for marketing. Further, this course would provide education in health care sector, regulatory national and international affair, legal, ethical and scientific aspects of clinical trial.



Core Curriculum for Education in Pharmaceutical Medicine: Based on International Federation of Association of Pharmaceutical Physicians (IFAPP), this programme consists of 12 modules, the nucleus of an appropriate postgraduate course in Pharmaceutical Medicine. In present curriculum there are five additional modules, comprising 2 modules on Development of The Drug From Herbal Source, one module each on Basic Allopathic Sciences, Genomics-Biotechnology & New Drug Delivery System.

### Modules:-

SN	Modules
1	Allopathic Subjects - Orientation of Pre, Para & Clinical Subjects
2	Preclinical (animal) Studies , Safety and Toxicity Testing
3	General and Clinical Pharmacology
4	Development of Medicines & Clinical Trials
5	Bio-Statistics & Data Management
6	Development of Drug from Herbal Source
7	Analytical Methods & QC & QA
8	Pharmaceutical Medicine ( Pharmac, Perspective )
9	Discovery of New Drug (Medicine)
10	Medical Department
11	Pharmaceutical Development of Drugs
12	Legal, Ethical and Regulatory Issues
13	Safety of Medicines and Epidemiology
14	Genomics & Biotechnology
15	Economics of Healthcare
16	Information, Promotion and Education
17	New Drug Delivery System & Other Technologies





## 2. Aims & Objectives:-

1. To strengthen various health science disciplines concerned with the discovery, development, evaluation, registration monitoring, medical aspects and marketing of Medicines for benefit of the individual patients and public health.
2. To familiarize students with Research Methodology (in animal and human) & develop research aptitude by encouraging them to undertake research projects (**basic** : laboratory based, **clinical** : often human research, **Epidemiological** : population based – survey and case control studies, **social or behavioral** : component of epidemiological research and **interventional studies** : to evaluate the impact of specific intervention on prevention / management of disease)
3. To provide a complete understanding of drug development from pre clinical to clinical stage.
4. To provide broad background knowledge in Regulatory, Legal & Ethical issues
5. To train in Biostatistics, Data Management, Monitoring and Health Economics
6. To sharpen practical skills by training and by performing biochemical, analytical and microbiological experiments using modern instruments.
7. To develop ability to work independently or work in industry, research oriented institute or in office of regulatory authorities.
8. To create awareness about promotion of product & marketing of drugs in National / International market
9. To develop scientific temper and interest by exposure through Internet, Computers, Various databases and Pharmaceutical Visits.



## 3. Eligibility:-

This course shall be open to students as follows:

### a) Graduates of the following systems of Health Sciences:-

MBBS, BDS, BAMS, BUMS, BHMS

(**Note:** Students shall have to produce University Internship Completion Certificate along with other documents, at the time of Counseling / Provisional admission)

### b) B.Sc & M.Sc. : - Bio-Chemistry, Microbiology, Botany, Zoology, Physiology, Pharmacology , and Biotechnology

### c) Pharmacy Graduates or higher (B. Pharm or M.Pharm)

(**Note (for item b and c given above):** Students appeared / appearing for final year examination may be permitted to appear for entrance examination (screening test) subject to passing of the said examination successfully and obtaining degree before / at the time of First Counseling / Provisional admission)



#### 4. Duration:-

Two Years

Course shall be conducted by University Dept. of Interpathy Research & Technology, MUHS in collaboration with Seth G. S. Medical College & KEM Hospital, Mumbai (Student shall be posted for first year at Nashik & for second year at Mumbai). Students will have to make their own residential arrangements.



#### 5. Language of Course: English

**6. Total number of Seats:** Sixty (60) Reservations as per State Govt. rules

**7. Nature of Course:** Interdisciplinary, full time course.

#### 8. Fee structure:-

Sr No.	Particulars of Fees	For Ist.Year in UDIRT Nashik	For IInd Year in KEM Mumbai	Remarks
(A) Non Refundable amount subject to admission cancelled based on M C Resolution No 94/2007 Dt.6/10/07				Revised fee structure proposed with effect from 1/8/2010 for Ist Year students and from 1/8/2011 from both batches i.e. from first year and second year students until further modification, considering the actual expenses and amenities provided / to be provided to students
1	Tuition Fee	45000.00	45000.00	
2	Library Fee	1000.00	3000.00	
3	Computer Laboratory Fee	2000.00	0.00	
4	Workshop Fee	2000.00	2000.00	
5	Eligibility Fee	5500.00	0.00	
6	Laboratory Fee	5000.00	10000.00	
Total No 1		60500.00	60000.00	
(B) Refundable Amount after completion of Course, subject to following conditions (1) Cost of Loss / Breakage / Damage of Instruments /Books /Journals etc will be deducted as per No Dues Certificate, (2) If cost of Instruments /Books /Journals is more than deposit/Caution Money, then entire remaining amount will be recovered in lump sum from Student. (3) Degree/Transfer Certificate will be issued to the student, only after recovery of Instruments /Books /Journals etc.				
7	Library Deposit	5000.00	--	
8	Caution Money	5000.00	--	
Total No 2		10000.00	--	
(C) Cost of Log Book/I.Card recoverable from student, based on the rates obtained from Market for one time				
9	Cost of Identity Card	Actual cost of I.Card and Log Book based on the rates obtained from market, will be recovered equally from admitted students during first year		
10	Cost of Log Book			

- ❖ Students will have to pay examination fees and any other fees as and when made applicable.
- ❖ All fee concessions given by government, such as free ship / scholarship / PTC etc. are admissible subject to receipt of grants from concerned departments / authorities, if applicable.
- ❖ Student will have to pay total amount of fee (as mentioned above) for both the years before commencement of the academic year. (Procedure regarding mode of payment etc. will be intimated in Screening test letter.)
- ❖ Part payments of the fee are not acceptable.



### 9. Refund of the Fees:-

- The candidate who has confirmed his / her admission may cancel admission by submitting an application and may request for the refund of fees. The refund of fees to candidates admitted for the M.Sc. (Pharma. Med.) Course shall be made after deduction as under.

SN	Period of Cancellation	Permissible Deductions
1.	Within 15 days from the date of Admission	Rs. 10,000/-
2.	Within 30 days from the date of Admission	Rs. 20,000/-
3.	After 30 days from the date of Admission	No refund.

The amount of entire fees for the second year shall be recovered from a candidate who has passed / completed the first year of M.Sc. Pharmaceutical Medicine but does not take admission to the second year.

The library deposit and caution money shall be refunded after successful completion of the course. Any damage, breakage or loss during use or custody of student shall be recovered at the student's expense.

### 10. Application Form & Information Brochure:-

- Information Brochure along with blank Application form is available on the University website (<http://www.muhs.ac.in>). The candidates are requested to download the application form and send it along with a **D.D. of Rs. 600/- in favor of "Registrar, MUHS, Nashik"**. D.D. should be drawn on any branch of Nationalized Bank payable at Nashik. ***The envelope should be superscripted with "M.Sc. Pharmaceutical Medicine - Application form"***.
- The application form must be filled by the candidate in his / her own handwriting using black ball point pen and submit it on or before last date of submission of the application forms on the following address:

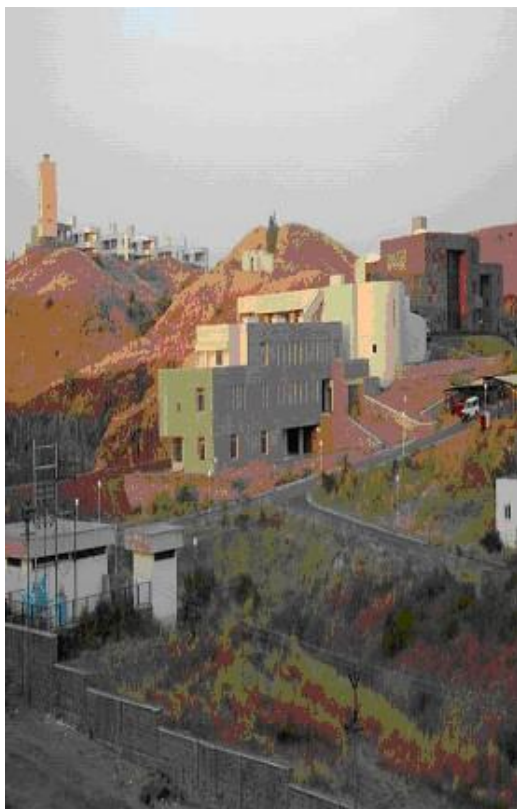
**The Registrar,  
Maharashtra University of Health Sciences,  
Vani-Dindori Road, Mhasrul, Nashik - 422 004.**

**An incomplete application form will be rejected.**

- Following attested photocopies are required to be submitted along with the application form strictly in given order:
  - Nationality Certificate OR Valid Passport
  - SSC Board Certificate or Birth Certificate (Certificate of age)
  - HSC Mark sheet
  - Equivalence Certificate from A.I.U. for NRI (if applicable)
  - Physical fitness Certificate
  - Bonafide Certificate from Dean / Principal of the college (if applicable) OR Gap affidavit on stamp paper of Rs. 20/-
  - College leaving Certificate (Transfer Certificate)

8. Internship Completion Certificate (if applicable)
  9. First to Final Year Degree Mark sheet & P.G. Degree Mark sheet (Mandatory) in case of candidates having P.G. Degree
  10. Degree Certificate / Passing Certificate.
  11. Registration Certificate from council (MMC, State Council, MCI, DCI, CCIM, CCH,PCI), (if applicable)
  12. Certificate of additional Qualifications.
  13. Affidavit for change of Name (Marriage Certificate/ Copy of Govt. Gazette.....if applicable)
  14. Caste Certificate (if applicable)
  15. Caste Validity Certificate (if applicable)
  16. Latest Non-Creamy layer certificate (if applicable)
  17. Migration certificate issued by respective Board / University (if applicable)
4. Scrutiny committee shall be appointed for scrutiny of application forms.





## 11. Scheme of Entrance Examination (screening test):-

### Syllabus & Rules for Entrance Examination.

Multiple choice questions shall be based on **the General knowledge related to health sciences.**

- Students have to appear for objective type Entrance Examination.
- The examination will be conducted at Nashik.
- Date of Examination, Time & Venue shall be informed on University web site.
- Language of entrance examination shall be English.
- The examination shall consist of multiple choice question paper of 100 marks containing 50 questions, and duration of examination shall be one hour.
- The candidate will be required to mark the correct answer by black / blue ball point pen in the given objective question booklet.
- Each correct answer will be given two marks. There shall be no negative marking.
- Scratching, overwriting, multiple answers and hand written answer will be considered as wrong answer and no marks will be allotted to them.

## 12. Preparation of Merit list:-

Merit list shall be prepared of those candidates appearing for Entrance Examination (Screening Test). The said merit list shall be used for the process of provisional admission.

### Tie-Breaker

In case of equal marks in Common Entrance Test the following procedure shall be adopted for deciding the merit

### First level

The candidate with more aggregate marks (converted into percentage upto 2 decimal points) at HSC.

### Second Level

The candidate with more aggregate marks (converted into percentage upto 2 decimal points) at Final year examination of the respective course.

### Third Level

If the tie still persists then an older candidate will be preferred over the younger candidate.







### 13. Selection Process:-

- The eligible candidate will be called for interview as per category wise merit list.
- Date of counseling / Provisional admission will be informed on the web site.
- The allotment of seats shall be made to the successful candidate as per merit list. Merit list will be prepared in accordance with the State Govt. rules / norms.
- The candidate, who will not appear for the interview on the notified date in person, his/her selection shall be considered as cancelled and such candidate shall lose his/her seat.
- Eligibility of candidate will be finalized after verification of all original documents submitted by the student.
- The candidate is required to take provisional admission on the date of counseling and he/she has to pay the fees as mentioned in point no.8.
- Seats that have been fallen vacant; shall be filled in subsequent rounds and will be displayed on the Notice board of UDIRT and the official website.
- Decision of selection committee and conditions mentioned in this brochure shall be final and will be binding on the candidates.

### 14. Disqualification for Admission:-

- A candidate who has already taken admission in to P.G. course in other subject or faculty will not be eligible for admission.
- Selected candidates who have cancelled their admission or do not take admission within stipulated period they shall not be eligible for admission in future.
- A candidate who has failed to submit above mentioned documents (Point No. 10(3)) will not be eligible for admission.
- Failure of the candidate in making full and correct statements in the application form and / or suppression of any information would lead to disqualification of the candidate. Such a candidate will be debarred from the entire selection process.
- The dispute arising out of the selection procedure and admission shall be subject to the jurisdiction of Hon'ble Mumbai High Court.

### 15. Attendance:-

80% attendance is compulsory failing which students will not be allowed to appear for the examinations. Doctor's certificate is necessary if absence is due to illness.

### 16. Accommodation:-

Students have to make their own residential arrangements when they are posted in Nashik & Mumbai.

<http://www.muhs.ac.in>

### 17. Conduct of Course:-

- The Candidate admitted in this fulltime course shall have to remain present in institute for full day.
- The candidate admitted in this course will not be allowed to work in any other institute or will not be allowed to work as a medical practitioner part / full time.
- The student while studying in this PG course, if found indulging in antinational activities, unlawful activities or ragging in any form, will be liable to be expelled from the department by the competent authority.
- It is responsibility of each student to have proper documents.



### 18. Certificate:-

After successful completion of the course, the candidate shall be awarded the Degree of **"M.Sc. Pharmaceutical Medicine"** by Maharashtra University of Health Sciences, Nashik.



### 19. Teaching Schedule and Evaluation:-

First Year examination shall be Internal Examination, conducted by the University Department of Interpathy Research & Technology at Nashik. Final university examination shall be conducted at the end of second year at Mumbai. Both examinations will be consisting of Theory, Practical & Viva Voce.

#### i) Study Period :

- Two years .
- This course will run in rotation - First year at MUHS, Nashik  
-Second year at K.E.M. Hospital, Mumbai

#### ii) Lectures & Seminars :

- Lectures on course orientation and basic training in allopathic Pre, Para and Clinical subjects.
- Lectures in modular form
- Seminar presentation: - Individual and in a group.





### iii) Practical & Syllabus:

- A : Case studies**  
**B : Shorts Projects**  
**C : Demonstrations**  
**D : Exercises**

**A : Case Studies: At least 20 Cases.**

SN	CLINICAL CONDITIONS
1	Acid peptic disease
2	Hepatitis
3	Cirrhosis of Liver
4	Bronchial asthma
5	Ischemic heart disease
6	Hypertension
7	Congestive cardiac failure
8	Nephritis
9	Enteric Infections
10	Rheumatoid Arthritis & Gout
11	Epilepsy
12	Parkinson Disease
13	Sleep Disorders
14	Malaria
15	Tuberculosis
16	MDR Tuberculosis
17	Urinary tract Infection
18	Hyper/Hypo Thyroidism/ Goitre
19	Diabetes
20	Osteoporosis
21	Piles/Fissures/Fistula
22	Hernia
23	Anemia: iron deficiency, hemolytic& megaloblastic
24	Skin conditions Acne, Psoriasis/ Dermatitis
25	O.P.C Poisoning / Alcoholic Intoxication
26	Viral diseases ( measles,chicken pox,polio etc)
27	Malnutrition
28	Dehydration
29	Meningitis
30	Rickets



**B : SHORT PROJECTS : Group of 5 students**

SN	TOPIC
1	Drug Utilization Study
2	Prescription Audit
3	Cost of Therapy
4	Rational use of drugs
5	Assessment of QOL
6	ADR Monitoring
7	Survey
8	Assessment of package insert
9	Pros & Cons of Fixed dose combination
10	Clinical Project





### C : Demonstrations: BATCH OF 15 STUDENTS

SN	TOPIC
<b>I<sup>st</sup> Year</b>	
1	Disintegration time
2	Dissolution Time
3	Demonstration of drug contamination by TLC
4	Chemical tests :a)Limit tests for As, Pb ,Iron, Silver, Chloride.
5	For identification of metals b) Tests for heavy metals, mercury
6	Extraction of drug from herbal source(Soxhlet apparatus)
7	Plant raw material standardization
8	Demonstration of Phk data analysis manual method
9	Qualitative assays : Colorimeter Estimation
10	Quantitative assays: Glucose Estimation
11	Dosage forms
<b>II<sup>nd</sup> Year</b>	
1	Pharmacodynamic effect of drugs: B blocker, Diuretics
2	Animal Studies: Biological and toxicological screening for extracts and formulations.
3	Estimation of Antiepileptic Drugs
4	Estimation of Lithium
5	Finger printing herbal extract
6	Pkt analysis by computer



**D : EXERCISES**

SN	TOPICS
1	Preparation of protocol for animal studies
2	Calculation of Human Dose from animal data
3	Writing Protocol for Phase I Study
4	Preparation of Case Record Form
5	Preparation of Patient Information Sheet
6	Preparation of Consent form
7	Calculation of Sample Size
8	Selection of Statistical tests for given data & calculation
9	Preparation of SAE form
10	Exercises on Ethical Issues
11	Analysis of Phk data (Trapezoidal Method)
12	Preparation of Package Insert
13	Report writing
14	Comments on combination preparation
15	Critical evaluation of a published paper



- ❖ Each student shall maintain a log book
- ❖ Case studies, Short projects and Exercises will be conducted in Civil Hospital, Nashik, in morning session between 10.00 am to 12.00 noon every day.

**20. Scheme of Examination:-**

Degree of M.Sc Pharmaceutical medicine will be conferred to a student who succeeds in University examination by obtaining 50% marks in each heading.

- a) Written examination : Eight papers, 75 Marks for each paper---- **(600 Marks)**  
Eight papers at the end of second year.
- b) Practical examination+ Log book + Attendance..... **(150 + 50 = 200 Marks)**  
At the end of second year
- c) An oral Examination: ..... **(100 Marks)**  
At the end of second year
- d) Project work : Short Project during first year **(40 Marks)**  
Project work : Long Project during second year **(60 Marks)**  
Long Project work will start from second term & should be submitted 6 weeks prior to final examination. Project work shall be evaluated by internal examiner & external examiner at the time of viva examination.
- e) Student should carry a copy of project work and Log Book at the time of practical examination.
- f) There will be two heads of passing i.e. theory papers and practical (practical includes practical examination, log book, attendance, oral & project) separately 50 % passing under each theory paper and practical.

**Nomenclature of Papers & Marks:-**

Year	Paper	Nomenclature	Marks per Paper
<b>M.Sc. I<sup>st</sup> Year</b>	<b>I</b>	<b>BASICS OF ALLOPATHIC SUBJECTS, DRUG DEVELOPMENT : PRECLINICAL</b>  1. Allopathic Subjects-orientation of pre, Para & clinical 2. Preclinical (animal) studies, safety and Toxicity Testing 3. General Pharmacology	<b>75</b>
	<b>II</b>	<b>CLINICAL PHARMACOLOGY &amp; DRUG DEVELOPMENT : CLINICAL</b>  4. Development of Medicines, Clinical Trials & Clinical Pharmacology	<b>75</b>
	<b>III</b>	<b>BIOSTATISTICS &amp; DATA MANAGEMENT</b>  5. Bio-Statistics & Data Management	<b>75</b>
	<b>IV</b>	<b>APPLIED ASPECTS OF DRUG DEVELOPMENT</b>  6. Development of drug from Herbal Source 7. Analytical Methods & QC & QA	<b>75</b>
<b>M.Sc. II<sup>nd</sup> Year</b>	<b>V</b>	<b>DRUG DISCOVERY, MEDICAL DEPARTMENT AND PRE CLINICAL PHARMACEUTICAL DEVELOPMENT</b>  8. Pharmaceutical Medicine (Pharmac. Perspective) 9. Discovery of New Drug (Medicine) 10. Medical Department	<b>75</b>
	<b>VI</b>	<b>LEGAL, ETHICAL &amp; REGULATORY ISSUES</b>  11. Pharmaceutical Development of drugs 12. Legal, Ethical & Regulatory issues	<b>75</b>
	<b>VII</b>	<b>DRUG SAFETY, EPIDEMIOLOGY &amp; GENOMICS</b>  13. Safety of Medicines and Epidemiology	<b>75</b>
	<b>VIII</b>	<b>DRUG DEVELOPMENT , HEALTH ECONOMICS AND MARKETING</b>  14. Genomics & Biotechnology 15. Economics of Health Care 16. Information, Promotion & Education 17. New Drug Delivery System & other Technologies	<b>75</b>

## 21. Project Work:-

Clinical Project, Laboratory, Animal, Epidemiological Project (Students has to submit the long project report six weeks prior to second year theory examination)



### **GUIDELINES TO CARRYOUT PROJECT WORK**

- 1) The main purpose of introducing Long Project work at 2<sup>nd</sup> year of M.Sc Pharmaceutical Medicine is to make the students familiar with Research Methodology i.e. reference work, experimental work, designing of protocol, randomization, consideration of risk benefit ratio, subjects rights & confidentiality, ethical & legal issues, statistical analysis, RF preparation, correct data entry, interpretation of results, and writing project report with bibliography. Each student shall complete a small research project during 2<sup>nd</sup> year.
- 2) The project should contain about 75 to 100 pages and should be divided into following parts:-
  - A) Certificate of completion of project work from the HOD
  - B) Acknowledgement if any
  - C) Introduction
  - D) Review of literature
  - E) Aims & Objectives
  - F) Rationale of the study
  - G) Plan of work
  - H) Material & Method
  - I) Results
  - J) Discussion
  - K) Bibliography
- 3) The project should be submitted 6 weeks prior to 2<sup>nd</sup> year theory examination, as same will be assessed by both Internal and External Examiners at the time of viva examination.
- 4) The project may be based on the collection of data by clinical study, laboratory study, animal study, epidemiological study.
- 5) All source documents, rough drafts, original data entry papers etc should be preserved till declaration of final university results.



## 22. Course Advantages:

Provides insights of all sections of pharmaceutical industry-

- Medical Writing
- Medical Coding
- Pharmacovigilance
- Regulatory Affairs
- Medico-Marketing/ Affairs
- Clinical Research
- Clinical Data Management

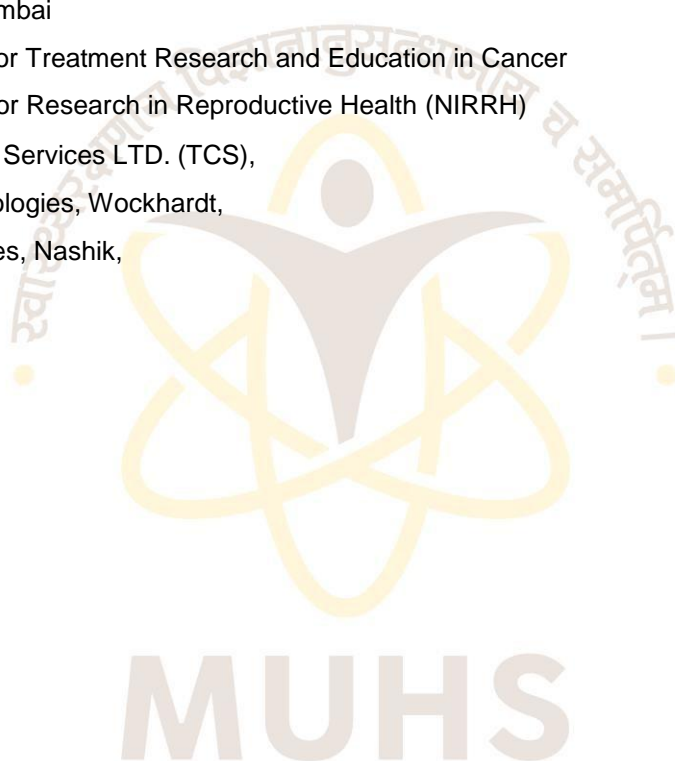
### 23. Future Prospects:-

This course will help the candidate to develop career & choice in future in the sphere of pharmaceutical companies, regulatory bodies, research organizations. Further, this course will also be useful in starting an independent contractual research unit.

Candidates will have an excellent opportunity to acquire a University degree, which will provide a platform to step into the pharmaceutical world or enter into the field of national or international research.

**24. Placement Performance :** Many of our students of passed out batches have been successfully placed in renowned Government institutions and Private companies like-

- Ministry of Health and Family welfare
- Indian Council of Medical Research
- National AIDS Research Institute, Pune (NARI),
- Tata Memorial Hospital (TMH),
- Maharashtra University of Health Sciences
- KEM Hospital Mumbai
- Advance Center for Treatment Research and Education in Cancer
- National Institute for Research in Reproductive Health (NIRRH)
- Tata Consultancy Services LTD. (TCS),
- Cognizant Technologies, Wockhardt,
- Excel Life Sciences, Nashik,
- Novartis
- Cipla
- Emcure
- RPG life sciences
- Sciformix
- Seroclinpharm



#### Note:

1. Tentative Schedule of admission process will be made available on University website after the last date of receipt of applications to the University.
2. During first term, admitted student has to under go Medical fitness test carried out by the UDIRT department.





# MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

University Department of Interpathy Research & Technology

Registration No

(For Office Use Only)

Category	SC	ST	VJ	NT1	NT2	NT3	OBC	SBC	OPEN	PH
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## Application Form

Post Graduate Course in Pharmaceutical Medicine  
(M. Sc. Pharmaceutical Medicine)

Please affix your  
recent Photograph

I confirm my intention to attend the Study Course in Pharmaceutical Medicine. I accept the University's admission procedures and understand that the processing of personal information and documents is subject to the requirements of the data protection act.

1) Name: \_\_\_\_\_  
In Capital letters Surname First name Father's/Husband's Name

2) Name in Devnagari Script: \_\_\_\_\_  
Surname First name Father's/Husband's Name

3) Address for Correspondence: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Pin Code: \_\_\_\_\_

4) Contact: Tel. No with STD: \_\_\_\_\_ Mobile: \_\_\_\_\_ Email: \_\_\_\_\_

5) Date of Birth: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ (in Words): \_\_\_\_\_

6) Age (as on 15/07/2015) Year/s: \_\_\_\_ Month/s: \_\_\_\_ Day/s: \_\_\_\_

08) Nationality: \_\_\_\_\_ 09) Religion: \_\_\_\_\_

10) Whether belong to SC/ST/VJ/NT/OBC/SBC/Open: \_\_\_\_\_ 11) Caste: \_\_\_\_\_

12) Sex: 

Male	Female
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 13) Marital Status: 

Married	Unmarried
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(Please strike √ mark)

(Please strike √ mark)

14) Application Fee: RS.600 DD. No.: \_\_\_\_\_ Date of DD: \_\_\_\_\_

Name of the Bank: \_\_\_\_\_

(DD should be drawn on any Nationalised Bank in favor of "Registrar, MUHS, Nashik" and should be payable at Nashik only. Kindly write your name and address at the back side of DD)

**15) Educational Qualification:** (Mandatory to attach all necessary copies of attested mark sheets)

No.	Exam Passe	Yr. of Passing	Name of Board/ University	Name of Inst./ College	Attempts	Total Marks	Percentage

**16) Presently Secured admission for any PG/Diploma Course (Write Yes/No):**

**17) Discontinued any PG admission in past: (Write Yes/No)**

**18) Passport No. (Non India):** \_\_\_\_\_

**19) Language Known:**

**Read**

**Write**

**Speak**

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**20) Any other information, which you would like to provide:** \_\_\_\_\_

(Please attach separate sheet, if necessary) \_\_\_\_\_

\_\_\_\_\_

**DECLARATION**

I hereby declare that I have not taken admission in any other Post Graduate Degree / Diploma course during this year & not in previous year in MUHS or in any other University. I further declare that, if it is proved that I have secured admission for any of the PG course presently and / or discontinued admission in past, MUHS has full right to cancel my current year's admission without refund.

The information furnished by me is correct and true. If any information submitted here is incorrect, untrue or fraudulent, I understand that I am liable for Civil / Criminal action by the Authority.

**Place:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature of Applicant**

**Note:**

1) Please attach all **attested Photocopies** of the documents along with the application form.

2) Incomplete application will be rejected immediately and no correspondence will be entertained on this behalf.