





# **MODERN COLLEGE OF PHARMACY**

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044.

(Accredited by NBA & NAAC)

URL: www.mcop.org.in , Email - mcopnigdi44@gmail.com



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### **PREAMBLE**

## 1.2.2 & 1.2.3 Number of Add on/Certificate programs offered during the last five years.

- The institute has always prioritized students' overall growth based on their feedback and suggestions from both teachers and business experts. In the areas of Regulatory Affairs, Pharmacovigilance, Clinical Research, Medical Coding, Medical Writing, Clinical Data Management, Hands-on Trainings, etc., this institute is hosting a variety of advanced addon/certificate courses.
- Circular/Brochure, List of Students, Notices, Attendance, Summary Reports, and Certificate are included as Documented Evidence for the Add/Certificate Courses Conducted.
- The table below provides a summary of the additional certificate programs offered, together with the number of students that benefited.

Academic Year	2023-24
No of Add on/Certificate programs	21
offered	
Total no of students enrolled in the	498
certificate courses	
Total no of students Completed the	498
programs	
1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 10 10

Average percent of students enrolled in the Add on/Certificate program as against the total number of students during the last five years: 63.08%



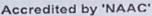


# **Guidelines for the implementation of Add on Courses**

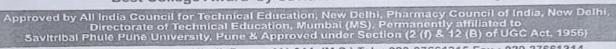


# Progressive Education Society's

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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S., M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

## Guidelines for the implementation of Add on courses

Purpose

This document's main purpose is to outline the institute's entire process for designing and implementing value-added courses, add-on courses, and certificate courses.

Scope

The value added/Add on courses, as well as the implementation and conducts of the course in the institute, is all described in this document.

### Process of conduct Add on Courses

- The following steps were taken in the design and implementation of these courses: Identification of Courses needed with Curriculum.
- Design of curriculum by HOD's, Course coordinators, Faculty members, and Industrial/subject experts.
- 3. Approval from Head of Institution
- 4. Design of brochure
- 5. Notice/Display/ Advertisement/ of the Value added courses brochure
- 6. Enrolment process
- 7. Value added courses curricular delivery by subject experts.
- 8. Maintenance of Attendance record.
- 9. Assessment/Evaluation
- 10. Display of results
- 11. Certification to qualified students.

### Impact

- The overall growth or progress of students throughout their undergraduate or graduate studies.
- · Instrumentation training that is sophisticated or advanced.
- · Career guidance/support.
- Soft skill development.

College of Aire

Dr P. D. Chaudhari Principal P. E. S. Modern College of Pharmacy Sector No.21, Yamunanagar, Nigdi, Pune - 411 044.









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# **Assessment Process for Add on/Certificate Programs**

- 1.2.2 Number of Add on/Certificate programs offered during the year.
- 1.2.3 Number of students enrolled in Certificate/Add-on programs as against the total number of students during the year.

	2023-24							
Sr.	Name of Add on/Certificate programs offered	Assessment process						
No								
01	Clinical Data Management	Oral Test						
02	Health Economics and Pharmacoeconomics	Discussion + Interview						
03	Clinical Research	Interview						
04	Generative AI in Pharmacovigilance	Interview						
05	Communication Skills for Pharmacists	Mock Interview						
06	Medical Writing for Healthcare Professionals	Oral Test						
07	The Complete Healthcare Artificial Intelligence Course	Interview						
08	PGM GPAT Course	Examination						
09	HPLC	Examination						
10	Enhancing Soft Skills and Personality	Examination						
11	Research Methodology	Examination						
12	Medicinal Chemistry	Examination						
13	Intellectual Property	Examination						
14	German - I	Examination						
15	One Health	Examination						
16	Intellectual Property Rights And Competition Law	Examination						
17	German - I	Examination						
18	Principles Of Organic Synthesis	Examination						
19	Reagents In Organic Synthesis	Examination						
20	Current Regulatory Requirements for Conducting	Examination						
	Clinical Trials in India for Investigational New							
	Drugs/New Drug (Version 3.0)							
21	Health Research Fundamentals	Examination						

Dr. A. R. Kumbhar Course Co-ordinator Dr. P. D. Chaudhari Principal







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# 1.2.2 & 1.2.3 Details of add on/Certificate programs offered in Academic Year 2023-24.

Sr. No	Names of the Add on /Certificate Course Offered	Circular /Brochure	List of students enrolled	Curriculum	Summary	Attendance	Assessment	Certificates
01	Clinical Data Management	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
02	Health Economics and Pharmacoeconomics	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Docume</u> nt	View Document	<u>View</u> <u>Document</u>
03	Clinical Research	<u>View</u> <u>Document</u>	<u>View</u> <u>Documen</u> t	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document
04	Generative AI in Pharmacovigilance	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
05	Communication Skills for Pharmacists	<u>View</u> <u>Document</u>	<u>View</u> <u>Documen</u> t	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
06	Medical Writing for Healthcare Professionals	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
07	The Complete Healthcare Artificial Intelligence Course	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Documen</u> t
08	PGM GPAT Course	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
09	HPLC	View Document	View Document	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document
10	Enhancing Soft Skills and Personality	<u>View</u> <u>Docume</u> nt	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>
11	Research Methodology	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document
12	Medicinal Chemistry	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
13	Intellectual Property	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
14	German - I	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>
15	One Health	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Documen</u> t
16	Intellectual Property Rights And Competition Law	View Document	View Document	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>	<u>View</u> <u>Document</u>





Sr. No	Names of the Add on /Certificate Course Offered	Circular /Brochure	List of students	Curriculum	Summary	Attendance	Assessment	Certificates
			enrolled					
17	German - I	View	View	View	View	<u>View</u>	<u>View</u>	<u>View</u>
		Document	Document	Document	Document	Document	Document	Document
18	Principles Of Organic	<u>View</u>	View	View	<u>View</u>	View	View	<u>View</u>
	Synthesis	<u>Document</u>	<u>Documen</u> t	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>
19	Reagents In Organic	<u>View</u>	View	<u>View</u>	View	View	<u>View</u>	<u>View</u>
	Synthesis	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Documen</u> t	<u>Document</u>	<u>Document</u>	<u>Document</u>
20	Current Regulatory	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>
	Requirements for	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>
	Conducting Clinical Trials							
	in India for Investigational							
	New Drugs/New Drug							
	(Version 3.0)							
21	Health Research	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u>
	Fundamentals	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>	<u>Document</u>







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# **Summary of Add on/Certificate Courses Academic Year 2023-24**

Sr. No	Name of Add on /Certificate programs offered	Course Code (If any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
01	Clinical Data Management	NA	2023-24	1	42 Hrs	56	56
02	Health Economics and Pharmacoeconomics	NA	2023-24	1	40 Hrs	56	56
03	Clinical Research	NA	2023-24	1	38 Hrs	54	54
04	Generative AI in Pharmacovigilance	NA	2023-24	1	40 Hrs	55	55
05	Communication Skills for Pharmacists	NA	2023-24	1	35 Hrs	54	54
06	Medical Writing for Healthcare Professionals	NA	2023-24	1	42 Hrs	52	52
07	The Complete Healthcare Artificial Intelligence Course	NA	2023-24	1	40 Hrs	60	60
08	PGM GPAT Course	NA	2023-24	1	1 Year	17	17
09	HPLC	NA	2023-24	1	40 Hrs	26	26
10	Enhancing Soft Skills and Personality	noc24-hs26	2023-24	1	Jul-Sep 23 (8 week)	1	1
11	Research Methodology	noc24-ge21	2023-24	1	Aug-Oct 23 (8 week)	34	34





Sr. No	Name of Add on /Certificate programs offered	Course Code (If any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
12	Medicinal Chemistry	noc24-cy17	2023-24	1	Jan-Apr 23 (12 week)	2	2
13	Intellectual Property	noc24-hs38	2023-24	1	Jan-Apr 24 (12 week)	1	1
14	German - I	noc24-hs29	2023-24	1	Jan-Apr 24 (12 week)	1	1
15	One Health	noc24-ge25	2023-24	1	Jan-Apr 24 (12 week)	1	1
16	Intellectual Property Rights And Competition Law	noc23-mg68	2023-24	1	Aug-Oct 23 (8 week)	7	7
17	German - I	noc24-hs29	2023-24	1	Jul-Oct 23 (12 week)	1	1
18	Principles Of Organic Synthesis	noc23-cy47	2023-24	1	Jul-Oct 23 (12 week)	1	1
19	Reagents In Organic Synthesis	noc23-cy48	2023-24	1	Jul-Oct 23 (12 week)	1	1
20	Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)	NA	2023-24	1	Jul-Sep 23 (8 week)	17	17
21	Health Research Fundamentals	NA	2023-24	1	Jul-Sep 23 (8 week)	1	1





# **Brochure Clinical Data Management**



# PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI- 44



MODERN COLLEGE OF PHARMACY, NIGDI IN COLLABORATION WITH RACE ACADEMY

Certificate Course On

# **CLINICAL DATA MANAGEMENT**

11/09/2023 - 20/09/2023







modernpharmacynigdi









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## **List of Students**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Clinical Data Management

Course Code: NA

Date: 11/09/2023 - 20/09/2023

Course Duration: 42 hrs

### List of Students

Sr. No	Name of Student	Sign
1	KADAM SHIVAM SURESH	Shiram
2	KAMBLE RAHUL DHANRAJ	Damp 12
3	KATKADE SHRUSHTI ARUN	Sy propode
4	KEDAR RUTVIK PRAKASH	Rutin
5	KHANKARI VAISHNAVI YOGESH	Dauthnani.
6	KHAWALE YASHVARDHAN DINESH	y ash vordhao
7	DISALE ATHARV AUDUMBAR	ATHATY
8	GADE SOHAM VISHAL	Schamgade
9	GAJARE SAHIL SUNIL	salve
10	GEHLOT DURGA RAMESH	Durga
11	SHINDE DIVYANI SAHEBRAO	O shinde
12	SHINDE GANESH SANJAY	caneMilis unde
13	SHINDE VISHAL BALU	Perhal
14	SHIRSATH ATHARVA SHAM	Bunona
15	SHITOLE POOJA GAJANAN	P 0019
16	MANKAR MOHINI ISHWARDAS	Mohini - Mankar
17	MARNE PAYAL SUNIL	Payal
18	MASNE PRAJAKTA BHAGWAN	prouse
19	MHASKE RUTUJA TANAJI	Rhyberte
20	MORE BHAKTI RAJESH	Bhaklimore
21	VERULKAR SANCHAY SHALIGRAM	Sammers
22	WADHAI GAURANG ANANT	Crawseing
23	AUSEKAR NUPUR RAMESHRAO	Muers
24	BADHE SUMIT ARUN	Aryanbandh
25	BAVANE REKHA SANJAY	surgenthour
26	BHARAMBE BHAKTI CHANDRAKANT	Bhasty"
27	BHARAMBE MIHIR SHIVAJI	willing
28	BHATANE CHAITANYA GOVIND	Operatare.
29	BHOI NEERAJ KISHOR	Neigher Rhos
30	BHOPALE SANIKA RAJESH 90 07	zunkakhopali









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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Sign
31	LOKHANDE PRIYA NAVNATH	(quyliner
32	LONDHE NINAD RAJENDRA	Commbnies -
33	MADAKE NIKHIL BHAGWAN	At to
34	MAHAKE OMKESH VENKAT	( mondo
35	MAIND PRASAD PRAVIN	Maind BHessed.
36	ADHALRAO VAISHNAVI DNYANESHWAR	Vay fresherae
37	ADHAV ATHARV RAJU	By under
38	ADSUL JIVAN KANTILAL	Polisary.
39	AGLAVE AKANKSHA SANJAY	spryve sanjay
40	AKOLKAR SHRUTIKA BHIMRAJ	Shouls 10
41	GADADE VAISHNAVI SURESH	Carriet -
42	GADHAVE SHRUTI BHARAT	dem
43	GAIKWAD SUDHIR GIRIDHAR	Rudlhive
44	GANGAWANE VISHAL SACHIN	Doodhill.
45	BARANGULE SAKSHI ASHOK	souhab
46	BHAGAWAT SAYALI NARAYAN	Dagalir
47	BHANGARE TRUPTI SUDHIR	·Rhangelist
48	BHARAMBE SOHAN NARENDRA	Chayer
49	PACHPHULE ANUJA HARIDAS	Mnuia:
50	PANDIT AISHWARYA SUNIL	Carlyne
51	PHALAKE SATYAJIT RAM	Juhurel.
52	SALUNKE MUKUND APPASAHEB	Dohitulal
53	VALVI ROHIT VILAS	July 1
54	MADAR PRATIKSHA	Sorgtiff
55	MAKEY OMKAR DATTATRAY	Conswind
56	MALI VAIBHAV SHIVAJI	Mucibhaw

Course Co-ordinator Dr. A. R. Kumbhar



Principal Dr. P. D. Chaudhari





### Curriculum



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#### 2023-24

Name of Course: Clinical Data Management

Course Code: NA

Date: 11/09/2023 - 20/09/2023 Course Duration: 42 hrs

### **Syllabus**

### Module 1: Introduction of Clinical Data Management

The Clinical Data Management Process
Objectives of CDM
Roles involved in CDM
Introduction to CDM Tools/Softwares

### Module 2: Basics of Clinical Trials (Its Stakeholders: Roles and Responsibilities)

Investigator and Sponsor Contract Research Organization (CRO) Clinical Research Coordinator (CRC) Clinical Research Associate (CRA) Institutional Ethics Committee/IRB

### Module 3: Guidelines for Clinical Data Management

Documentation Scenario for Data Collection and Management International studies and data privacy Electronic source data in Clinical Investigations Guidance for Industry- ISO, ICH, HL7, CDISC, CDASH

### Module 4: Data Management Plan (DMP)

Introduction and Need of DMP in Clinical Research Framework for creating a DMP Purpose of DMP

### Module 5: Review and Finalization of study document

Essential Documents before, during and after the trial ICH GCP Protocol
Informed Consent Documents
Investigator's Brochure
Case Report Form
Clinical Study Report



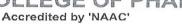
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### Module 6: Electronic Data Capture

The Electronic Data Capture (EDC) system Verification of EDC setup and implementation User Acceptance Testing (UAT)

### Module 7: Database designing (CRF and IXRS)

Purpose of CRF/IXRS
Regulatory requirements in designing the CRF
Techniques for Designing CRF/IXRS
Paper CRF vs. Electronic CRF

### Module 8: Data Entry, Data collection & CRF Tracking

Data entry systems and Data entry methods Data Entry Guidelines, Data Entry Errors Remote Data Entry and its benefits

### Module 9: CRF Processing & Inventory from site

CRF Development Process
Component of CRF, Data Entry Status
Discrepancy Status
Colour coded response fields

### Module 10: Data Validation

CDM requirement in GCP
Data Validation Process during the conduct of a clinical trial
Validation steps performed by stakeholders (Investigator, Sponsor, Monitor, CDM team)

### Module 11: Discrepancy Management

Tools for configuring discrepancy management Reasons of discrepancies Review status of discrepancies Configuring the access status for discrepancies

### Module 12: Database locking and Unlocking

Data management Procedure for database lock Database lock process Unlocking the database lock Soft lock/Data cleaning Hard lock









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Module 13: QA/QC checks in CDM
Quality Control as per GCP
Quality Assurance as per GCP
Audit
The Quality assurance Group
Source data Review
Source data Verification
Module 14: Data storage and Archival
What is data archiving
The benefit of data archival
Data archiving and data lifecycle management
Archiving for regulatory compliance

Module 15: Tools for CDM
CDMS- Clinical Data Management Systems
EDC- Electronic Data Capture
CTMS- Clinical Trial Management System
ePRO- Electronic Patient Reported Outcomes
RTSM- Randomization and Trial Supply Management

Module 16: Virtual Clinical Trial (Role of Artificial Intelligence (AI) and Machine Learning (ML))

E-Consent (Audio visual consent)
E-Patient Reported Outcomes (e-PRO)
IWRS
Telemedicine
Patient e Diaries
Remote Patient Monitoring

Module 17: Industry Based Case Studies

Course Co-ordinator Dr. A. R. Kumbhar College of Orthogram

Principal Dr. P. D. Chaudhari

Page 3 of 3





# **Summary**



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Clinical Data Management Course Code: NA Date: 11/09/2023 - 20/09/2023 Course Duration: 42 hrs

### **Summary Report**

Summary Report							
Type of Program	Certificate Course on Clinical Data Management						
Period	11 <sup>th</sup> September 2023 - 20 <sup>th</sup> September 2023 (42 hrs)						
Brief Report	A certificate course in Clinical Data Management was conducted at the institute in Collaboration with Elite institute of Pharma skills, Pune. The course was held between 11th September 2023 - 20th September 2023 (42 hrs). The course covered varied topics like in Module I The curriculum introduces CDM as a critical function in clinical trials, outlining its processes, objectives, and roles. It highlights key software tools used to ensure data quality and compliance. It covers the roles and responsibilities of essential stakeholders like investigators, sponsors, Contract Research Organizations. The syllabus emphasizes international guidelines for clinical data management. The importance and framework of DMP in clinical research are explained. EDC systems are explored in The syllabus outlines data entry methods, guidelines, and error management. The database lock process, including soft and hard locks, and procedures for unlocking. This module focuses on QA/QC standards per GCP, audits, and source data verification, reinforcing the importance of maintaining quality in clinical data management. Real-world case studies provide practical insights into CDM applications, bridging theoretical knowledge with industry practices. 56 students at the institute enrolled for this course. The chief course conductors were Elite institute of Pharma skills.						
	Overall, the Clinical Data Management course provided participants with a comprehensive understanding of the clinical data management lifecycle, from						
	planning and execution to compliance and quality assurance, fostering competence in both traditional and emerging aspects of clinical trials. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of Pharm D and well supported by the administrative and non –teaching staff.						
POs attained	PO1 –PO11						

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal

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### **Attendance**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Clinical Data Management

Course Code: NA

Date: 11/09/2023 - 20/09/2023

Course Duration: 42 hrs

#### Attendance

or.	Name of Students	11/09/23	12/09/23	13/09/23	14/09/23	15/09/23	16/09/23	18/09/23	20/09/23
1	KADAM SHIVAM SURESH	P	A	P	P	D	P	P	P.
2	KAMBLE RAHUL DHANRAJ	P	P	P	P	A	P	P	P
3	KATKADE SHRUSHTI ARUN	P	P	A	P	P	P	P	A
4	KEDAR RUTVIK PRAKASH	A	P	P	P	A	P	P	P
5	KHANKARI VAISHNAVI YOGESH	P	A	P	A	P	P	P	P
6	KHAWALE YASHVARDHAN DINESH	P	P	P	P	P	P	P	P
7	DISALE ATHARV AUDUMBAR	P	P	P	A	P	P	P	P
8	GADE SOHAM VISHAL	P	A	P	P	P	P	P	P
9	GAJARE SAHIL SUNIL	P	D.	P	P	P	P	P	P
. )	GEHLOT DURGA RAMESH	P	P	P	A	P	P	P	P
11	SHINDE DIVYANI SAHEBRAO	P	P	P	P	P	A	P	P
12	SHINDE GANESH SANJAY	A	P	P	P	A	P	P	P
13	SHINDE VISHAL BALU	D	P	P	D	A	P	A	P
14	SHIRSATH ATHARVA SHAM	P	D	P	P	P	A	P	A
15	SHITOLE POOJA GAJANAN	P	A	P	P	P	A	P	P
16	MANKAR MOHINI ISHWARDAS	A	P	P		P	P	P	P
17	MARNE PAYAL SUNIL	P	A	P	P	P	A	P	P
18	MASNE PRAJAKTA BHAGWAN	b	P	P	P	A	P	A	P
19	MHASKE RUTUJA TANAJI	P	P	A	A	P	P	P	P
20	MORE BHAKTI RAJESH	A	P	P	Par	P	P		P









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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Students	11/09/23	12/09/23	13/09/23	14/09/23	15/09/23	16/09/23	18/09/23	20/09/23
	VER ULKAR SANCHAY	P			_	6	P	-	0
$\frac{21}{22}$	SHALIGRAM		A	P	P	A		P	P
-	WADHAI GAURANG ANANT AUSEKAR NUPUR	P	P	P	P	12	A	A	P
23	RAMESHRAO	D	A	P	A	A	P	P	P
24	BADHE SUMIT ARUN	P	P	P	P	P	P	P	Ð
25	BAV ANE REKHA SANJAY	P	P	P	A	P	P	P	A
26	BHARAMBE BHAKTI CHANDRAKANT	P	A	A	P	P	P	P	P
27	BHA RAMBE MIHIR SHIVAJI	P	Ð	P	P	P	P	P	P
28	BHATANE CHAITANYA GOVIND	A	P	P	P	P	P	P	P
29	BHOI NEERAJ KISHOR	P	P	P	P	A	P	P	P
30	BHOPALE SANIKA RAJESH	P	A	P	P	P	P	P	P
31	LOKHANDE PRIYA NAVNATH	P	P	P	P	P	P	A	P
32	LONDHE NINAD RAJENDRA	P	P	P	P	P	P	P	P
33	MADAKE NIKHIL BHAGWAN	P	P	P	P	A	P	P	P
34	MAHAKE OMKESH VENKAT	D	P	P	P	P	P	P	P
35	MAIND PRASAD PRAVIN	D	P	A	P	P	P	A	P
36	ADHALRAO VAISHNAVI DNYANESHWAR	P	P	A	A	P	P	P	P
37	ADHAV ATHARV RAJU	B	P	P	P	P	P	P	f)
38	ADSUL JIVAN KANTILAL	P	A	A	P	P	P	P	P
39	AGLAVE AKANKSHA SANJAY	P	P	P	P	P	P	A	A
40	AKOLKAR SHRUTIKA BHIMRAJ	A	A	P	P	P	P	P	P
41	GADADE VAISHNAVI SURESH	A	P	P	P	P	A	P	P
42	GADHAVE SHRUTI BHARAT	P	P	P	A	P	P	P	P
43	GAIKWAD SUDHIR GIRIDHAR	P	P	P	P	P	A	P	P
44	GANGAWANE VISHAL SACHIN	P	P	P	P	A	P	A	P
45	BARANGULE SAKSHI ASHOK	P	Ð	P	A	P	A	P	P.









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Sr. No	Name of Students	11/09/23	12/09/23	13/09/23	14/09/23	15/09/23	16/09/23	18/09/23	20/09/23
46	BHAGAWAT SAYALI NARAYAN	p	P	P	A	P	P	A	P
4,	BHANGARE TRUPTI SUDHIR	A	p	P	P	A	P	p	P
48	BHARAMBE SOHAN NARENDRA	A	P	P	P	P	P	P	P
49	PACHPHULE ANUJA HARIDAS	P	P	A	P	P	P	P	A
50	PANDIT AISHWARYA SUNIL	P	P	P	A	P	A	P	P
51	PHALAKE SATYAJIT RAM	A	A	P	P	P	P	P	P
52	SALUNKE MUKUND APPASAHEB	P	P	A	P	P	A	P	P
53	VALVI ROHIT VILAS	P	P	P	A	P	P	P	A
54	MADAR PRATIKSHA	A	P	A	P	P	P	P	P
55	MAKEY OMKAR DATTATRAY	P	P	A	A	P	P	P	P
56	MALI VAIBHAV SHIVAJI	P	P	P	A	P	P	ρ	P

Dr. A. R. Kumbhar Course Co-ordinator College of Charles and Charles

Page 3 of 3

P. D. Chaudhari Principal





### **Assessment**



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2023-24

Name of Course: Clinical Data Management

Course Code: NA

Date: 11/09/2023 - 20/09/2023

Course Duration: 42 hrs

### Assessment

Sr. No	Name of Students	Marks 20
1	KADAM SHIVAM SURESH	17
2	KAMBLE RAHUL DHANRAJ	15
3	KATKADE SHRUSHTI ARUN	16
4	KEDAR RUTVIK PRAKASH	18
5	KHANKARI VAISHNAVI YOGESH	19
6	KHAWALE YASHVARDHAN DINESH	19
7	DISALE ATHARV AUDUMBAR	17
8	GADE SOHAM VISHAL	18
9	GAJARE SAHIL SUNIL	19
10	GEHLOT DURGA RAMESH	17
11	SHINDE DIVYANI SAHEBRAO	19
12	SHINDE GANESH SANJAY	18
13	SHINDE VISHAL BALU	19
14	SHIRSATH ATHARVA SHAM	19
15	SHITOLE POOJA GAJANAN	17
16	MANKAR MOHINI ISHWARDAS	19
17	MARNE PAYAL SUNIL	19
18	MASNE PRAJAKTA BHAGWAN	18
19	MHASKE RUTUJA TANAJI	19
20	MORE BHAKTI RAJESH	17
21	VERULKAR SANCHAY SHALIGRAM	18
22	WADHAI GAURANG ANANT	19
23	AUSEKAR NUPUR RAMESHRAO	19
24	BADHE SUMIT ARUN	17
25	BAVANE REKHA SANJAY	18
26	BHARAMBE BHAKTI CHANDRAKANT	19
27	BHARAMBE MIHIR SHIVAJI	17
28	BHATANE CHAITANYA GOVIND	19
29	BHOI NEERAJ KISHOR	18
30	BHOPALE SANIKA RAJESH	19









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Sr. No	Name of Students	Marks 20
31	LOKHANDE PRIYA NAVNATH	17
32	LONDHE NINAD RAJENDRA	19
33	MADAKE NIKHIL BHAGWAN	18
34	MAHAKE OMKESH VENKAT	19
35	MAIND PRASAD PRAVIN	. 19
36	ADHALRAO VAISHNAVI DNYANESHWAR	17
37	ADHAV ATHARV RAJU	19
38	ADSUL JIVAN KANTILAL	19
39	AGLAVE AKANKSHA SANJAY	18
40	AKOLKAR SHRUTIKA BHIMRAJ	19
41	GADADE VAISHNAVI SURESH	17
42	GADHAVE SHRUTI BHARAT	17
43	GAIKWAD SUDHIR GIRIDHAR	19
44	GANGAWANE VISHAL SACHIN	18
45	BARANGULE SAKSHI ASHOK	19
46	BHAGAWAT SAYALI NARAYAN	19
47	BHANGARE TRUPTI SUDHIR	17
48	BHARAMBE SOHAN NARENDRA	19
49	PACHPHULE ANUJA HARIDAS	19
50	PANDIT AISHWARYA SUNIL	18
51	PHALAKE SATYAJIT RAM	19
52	SALUNKE MUKUND APPASAHEB	17
53	VALVI ROHIT VILAS	18
54	MADAR PRATIKSHA	19
55	MAKEY OMKAR DATTATRAY	17
56	MALI VAIBHAV SHIVAJI	19

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





# **Certificate of Clinical Data Management**



# CERTIFICATE OF ACHIEVEMENT



# KAMBLE RAHUL D.

for Successfully completing the certificate course "Clinical Data Management" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 11/09/2023 to 20/09/2023. His/Her Participation is highly appreciated.



Mr. Meher R. Tundulwar

aliling

Dr. P. D. Chaudhari
Principal



# CERTIFICATE OF ACHIEVEMENT



# KADAM SHIVAM S.

for Successfully completing the certificate course **"Clinical Data Management"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 11/09/2023 to 20/09/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar

Mr. Meher R. Tundulwar

Dr. P. D. Chaudhari







# CERTIFICATE OF ACHIEVEMENT



# KEDAR RUTVIK P.

for Successfully completing the certificate course "Clinical Data Management" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 11/09/2023 to 20/09/2023. His/Her Participation is highly appreciated.





Dr. P. D. Chaudhari



# CERTIFICATE OF ACHIEVEMENT



# KHANKARI VAISHNAVI Y.

for Successfully completing the certificate course "Clinical Data Management" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 11/09/2023 to 20/09/2023. His/Her Participation is highly appreciated.

Dr. A. R. Kumbhar Co-ordinator Mr. Meher R. Tundulwar
Director RACE Institute

Dr. P. D. Chaudhari





## **Brochure Health Economics and Pharmacoeconomics**



# PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI- 44



MODERN COLLEGE OF PHARMACY, NIGDI IN COLLABORATION WITH **RACE ACADEMY** 

Certificate Course On

# **HEALTH ECONOMICS & PHARMACOECONOMICS**

29/09/2023 - 10/10/2023







modernpharmacynigdi















## **List of Students Health Economics and Pharmacoeconomics**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

### 2023-24

Name of Course: Health Economics and Pharmacoeconomics

Course Code: NA

Date: 29/09/2023-10/10/2023

Course Duration: 40 hrs

### List of Students

Sr. No	Name of Student	Sign
1	HOLE SANIKA VILAS	Bariles.
2	HUSE ATHARVA SACHIN	Athalian.
3	JADHAV VARDHINI DHANAJI	Varethine.
4	JAGTAP ANURAG SANTOSH	Anwage.
5	KALE ADITI APPA	Adiati.
6	GAIKWAD REVATI RAMESH	Shoutihate.
7	HATE SHRUTI VIKAS	Shapter.
8	INGLE SHRUTI RAJENDRA	That?
9	JADHAV KEREN WILSON	# Preifech
10	KALE AYUSH PRAFUL	M. Varanno 1.
11	RATHOD MONIKA VASANT	Barbbarg Ka
12	SHINDE SHUBHANGI NAVNATH	Sherballitanga
13	TIKATE SHARADHA SHIVAJI	Colved bd.
14	GAVHANE SHRAVANI BHAIRAVNATH	Chrownani.
15	GAWARI GAYATRI SHIVAJI	gayatri
16	GHODAKE SAVITRI VISHWANATH	L'amatei.
17	GHUGE POONAM SHARAD	( + Bonam +
18	AUTADE SAKSHI SEETARAM	Bakehi .
19	BAGUL GURUPRIT DEVGIR	Guruphit
20	BAMBALE ANKITA PANDURANG	Anot Handing.
21	BHAGAT PRAGATI DHANANJAY	Bagali.
22	GORE VIKAS MADHUKAR	Valor.
23	GOVARDHAN BHARGAVI GOVIND	Stranlani
24	GUNJAL DEEPTI MACHINDRA	Deepti.
25	GUTTE RAJESH MUNJA	Lageopio
26	HATKAR POOJA SHANKAR	POOTA.
27	DAGADE RANI DHONDIBA	Harris.
28	DEOSARKAR VASUNDHARA NAMDEVRAO	Vacanto
29	DHAWADE SIDDHI SANTOSH	ide in
30	DHEKANE SHARANYA CHANDRASHEKHAR	Greenya.



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Sign
31	GAIKWAD AADITYA VINAYAK	· Paslys.
32	GHUNDRE SAKSHI KISHOR	Ba,
33	JADHAV SAYALI PRAKASH	Rue.
34	JAGTAP PRATIK PARASRAM	PSIL.
35	JOSHI NIKHIL SUMANTRAO	DAL.
36	KENDRE SHAILESH HARISHCHANDRA	Q,
37	JADHAV PRAPTI SURYAKANT	Qu.
38	JAMADADE RANJIT ASHOK	(Q),
39	KHICHADE PRATIMA MAHADEV	Pin.
40	KORE ROHAN RAJKUMAR	Qu.
41	PHALKE PRATIK KIRAN	Odvian.
42	RAI SHREYA RAJKUMAR	Brown.
43	RAKSHASKAR BHAVESH VINAYAK	ale .
44	RANE MAYUR SANJAY	e.
45	JAGTAP PRAJAKTA BAJRANG	SDA.
46	KASTURE SNEHAL HANAMANT	Ann
47	PATIL ANIMESH RAMKRUSHNA	Exerciti.
48	PAWAR SADHANA SANDEEP	On.
49	BALURE SUKSHAMTA DIGAMBAR	(Sough,
50	BHOITE PRATIKSHA SURESH	(P)
51	CHAVAN VAISHNAVI VAIJNATH	WA.
52	DESHMUKH VAISHNAVEE GANESHRAO	
53	DEOKAR SAAKSHI SHRIKANT	611
54	DESAI SUMEDH SANJAY	Ge.
55	DHADGE SAVATA SANJAY	(Sas
56	DHAS VISHAL KHANDU	

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





## **Curriculum of Health Economics and Pharmacoeconomics**



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### 2023-24

Name of Course: Health Economics and Pharmacoeconomics
Course Code: NA

Course Duration: 40 hrs

### **Syllabus**

Module 1: Introduction Module 2: Economic Evaluation Introduction to economic evaluation Health utilities Quality of life Quality Adjusted Life Years (QALY) In-Depth Resources

Module 3: Technology Assessment Health technology assessment (HTA) In-Depth Resources

Module 4: Drug Management in Healthcare System The Micro-Management Perspective In-Depth Resources

Module 5: Patents and policies to promote competition in Pharmaceutical Market Patents and policies to promote competition In-Depth Resources

Module 6: Major Healthcare Reforms in History: Impact and Evaluation Introduction and UK case study
A Landmark US Healthcare Reform
The Health Transformation Program in Turkey: A Case Study
Universal Health Coverage in Thailand: A Landmark Reform
Germany's Social Health Insurance

Module 7: Health Economics: A Demand Perspective Health Economics from a Demand Perspective



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

### Module 8: Health Economic from supply Perspective

Economics and Its Applicability to Health The Health Production Function and Health Expenditure Analysis Markets for Health Goods and Services Costs, Payment Systems, and Incentives in Health Services

### Module 9: Real World Evidence (RWE)

Real World Evidence (RWE) Fundamentals Delving Deeper into Real-World Evidence (RWE)

### Module 10: Behavioral Economics and Health

Behavioral Economics and Health: Shaping Better Decisions

### Module 11: Advance Topic in Health Economics

Global health economics, pandemics and cooperation The Economics of Antimicrobial Resistance

### Module 12: Modelling in Health Care

Introduction to Modelling in Health Care I Introduction to Modelling in Health Care II Example of Full Cost-effectiveness Model

Course Co-ordinator



Chaudhart Principal





# **Summary Health Economics and Pharmacoeconomics**



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2023-24

Name of Course: Health Economics and Pharmacoeconomics

Date: 29/09/2023-10/10/2023 Course Duration: 40 hrs Course Code: NA

**Summary Report** 

Type of Program	Certificate Course on Health Economics and Pharmacoeconomics
Period	29th September 2023 – 10th October 2023 (40 hrs)
Brief Report	A certificate course in Health Economics and Pharmacoeconomics was conducted at the institute in Collaboration with Elite institute of Pharma skills, Pune. The course was held between 29 <sup>th</sup> September 2023 – 10 <sup>th</sup> October 2023 (40 hrs). The introductory module provides an overview of health economics and pharmacoeconomics, focusing on their role in optimizing healthcare systems. It highlights the principles of resource allocation, cost analysis, and economic decision-making in health interventions. Analyzes healthcare from the demand side, focusing on patient behaviors, access, and the factors influencing healthcare consumption. Explores how behavioral economics principles can be applied to healthcare to encourage better decision-making by patients, providers, and policymakers. This includes nudging healthier behaviors and optimizing healthcare delivery systems. 56 students at the institute enrolled for this course. The chief course conductors were Elite institute of Pharma skills.
	Overall, the Health Economics and Pharmacoeconomics course curriculum equips students with the foundational knowledge and practical tools needed to navigate the complexities of health economics and pharmacoeconomics. By integrating theoretical insights with real-world applications, it prepares students to contribute to the optimization of healthcare systems, policy-making, and pharmaceutical innovation. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of Pharm D and well supported by the administrative and non—teaching staff.
POs attained	PO1 –PO11

Dr. A. Ř. Kumbhar Course Co-ordinator Principal





## **Attendance of Health Economics and Pharmacoeconomics**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2022-23

Name of Course: Health Economics and PharmacoeconomicsDate: 29/09/2023-10/10/2023 Course Code: NA Course Duration: 40 hrs

#### Attendance

Sr.	Name of Students	29/09/23	30/09/23	03/09/23	04/09/23	05/09/23	06/09/23	07/10/23	10/10/23
1	HOLE SANIKA VILAS	P	P	A	P	P	P	A	P
2	HUS E ATHARVA SACHIN	P	A	P	P	P	A	P	P
3	JADHAV VARDHINI DHANAJI	P	A	P	A	P	P	P	P
4	JAGTAP ANURAG SANTOSH	A	P	A	P	P	P	P	P
5	KALE ADITI APPA	P	Α	P	P	A	P	P	P
6	GAIKWAD REVATI RAMESH	P	A	A	P	P	P	P	P
7	HATE SHRUTI VIKAS	A	A	P	P	P	P	P	P
8	INGLE SHRUTI RAJENDRA	P	P	A	P	P	A	A	P
9	JADHAV KEREN WILSON	p	A	P	P	A	P	P	P
10	KALE AYUSH PRAFUL	P	P	P	A	P	P	P	P
11	RATHOD MONIKA VASANT	A	P	A	P	P	A	P	P
12	SHINDE SHUBHANGI NAVNATH	P	P	A	P	P	P	A	P
13	TIKATE SHARADHA SHIVAJI	P	P	P	P	P	P	P	A
14	GAVHANE SHRAVANI BHAIRAVNATH	Δ	P	P	P	Α	P	P	P
15	GAWARI GAYATRI SHIVAJI	P	P	A	P	P	P	A	P
	GHODAKE SAVITRI VISHWANATH	P	A	P	P	A	P	P	P
17	GHUGE POONAM SHARAD	A	P	P	P	A	P	P	P
18	AUTADE SAKSHI SEETARAM	P	P	P	A	P	P	P	A
19	BAGUL GURUPRIT DEVGIR	A	P	P	P	A	P	P	P
20	BAMBALE ANKITA PANDURANG	P	P	A	P	P	P	A	P
21	BHAGAT PRAGATI DHANANJAY	P	A	P	P	A	P	P	P
22	GORE VIKAS MADHUKAR	P	P	A	P	P	P	P	A
23	GOVARDHAN BHARGAVI GOVIND	P	A	P	P	P	A	P	P
24	GUNJAL DEEPTI MACHINDRA	P	P	P	A	P	P	P	A
25	GUTTE RAJESH MUNJA	P	P	A	P	P	A	P	P
26	HATKAR POOJA SHANKAR	P	A	P	P	P	P	P	A
27	DAGADE RANI DHONDIBA	A	P	P	P	P	P	A	P
28	DEOSARKAR VASUNDHARA NAMDEVRAO	A	Α	P	Nege	Р	P	P	P
29	DHAWADE SIDDHI SANTOSH	A	P	P	PR	P	P	P	A
30	DHEKANE SHARANYA CHANDRASHEKHAR	P	A	P Wode	THE STATE OF THE S	12	P	A	P

Page 1 of 2

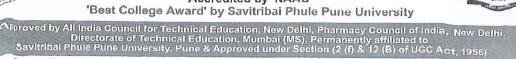






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Sr. No	Name of Students	29/09/23	30/09/23	03/09/23	04/09/23	05/09/23	06/09/23	07/10/23	10/10/23
31	GAIKWAD AADITYA VINAYAK	P	P	P	P	Р	A	P	P
32	GHUNDRE SAKSHI KISHOR	P	P	A	P	P	P	P	P
33	JADHAV SAYALI PRAKASH	P	P	P	P	P	A	P	P
34	JAGTAP PRATIK PARASRAM	P	P	P	P	Р	P	P	A
35	JOSHI NIKHIL SUMANTRAO	P	A	P	Р	P	P	P	P
36	KE NDRE SHAILESH HARISHCHANDRA	P	P	P	P	A	P	P	A
37	JADHAV PRAPTI SURYAKANT	P	P	P	P	P	P	P	A
38	JAMADADE RANJIT ASHOK	P	A	P	Р	P	P	A	P
39	KHICHADE PRATIMA MAHADEV	P	P	P	P	P	P	P	P
40	KORE ROHAN RAJKUMAR	P	P	P	P	A	þ	P	P
41	PHALKE PRATIK KIRAN	P	P	P	P	P -	P	A	ρ
42	RAI SHREYA RAJKUMAR	P	A	P	P	P	P	P	P
43	RAKSHASKAR BHAVESH VINAYAK	P	P	A	P	P	P	A	P
44	RANE MAYUR SANJAY	P	P	P	A	P	P	P	P
45	JAGTAP PRAJAKTA BAJRANG	P	P	P	P	A	P	P	P
46	KASTURE SNEHAL HANAMANT	P	P	P	P	P	A	P	P
47	PATIL ANIMESH RAMKRUSHNA	P	P	P	P	A	P	P	P
48	PAWAR SADHANA SANDEEP	P	P	P	P	P	P	P	A
49	BALURE SUKSHAMTA DIGAMBAR	P	A	P	P	P	Þ	P	P
50	BHOITE PRATIKSHA SURESH	P	A	P	P	P	P	P	P
51	CHAVAN VAISHNAVI VAIJNATH	P	P	A	P	P	P	P	P
52	DESHMUKH VAISHNAVEE GANESHRAO	P	P	P	A	P	P	P	P
53	DEOKAR SAAKSHI SHRIKANT	P	P	p	P	P	P	A	P
54	DESAI SUMEDH SANJAY	P	P	À	P	P	P	P	P
55	DHADGE SAVATA SANJAY	P	P	P	ρ	P	A	P	P
56	DHAS VISHAL KHANDU	P	P	٨	P	P	P	P	P

Dr. A. R. Kumbhar Course Co-ordinator







## **Assessment of Health Economics and Pharmacoeconomics**



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### 2023-24

Name of Course: Health Economics and Pharmacoeconomics

Course Code: NA

Course Duration: 40 hrs

### Assessment

Sr. No	Name of Student	Discussion 15 Marks	Interview 15 Marks	Total 30 Marks
1	HOLE SANIKA VILAS	08	10	18
2	HUSE ATHARVA SACHIN	09	11	20
3	JADHAV VARDHINI DHANAJI	12	09	21
4	JAGTAP ANURAG SANTOSH	10	12	22
5	KALE ADITI APPA	11	08	19
6	GAIKWAD REVATI RAMESH	09	09	18
7	HATE SHRUTI VIKAS	12	10	22
8	INGLE SHRUTI RAJENDRA	08	09	17
9	JADHAV KEREN WILSON	09	13	22
10	KALE AYUSH PRAFUL	10	10	20
11	RATHOD MONIKA VASANT	09	13	22
12	SHINDE SHUBHANGI NAVNATH	13	09	22
13	TIKATE SHARADHA SHIVAJI	09	10	19
14	GAVHANE SHRAVANI BHAIRAVNATH	13	09	22
15	GAWARI GAYATRI SHIVAJI	10	13	23
16	GHODAKE SAVITRI VISHWANATH	13	09	22
17	GHUGE POONAM SHARAD	09	13	22
18	AUTADE SAKSHI SEETARAM	10	10	20
19	BAGUL GURUPRIT DEVGIR	13	13	26
20	BAMBALE ANKITA PANDURANG	12	09	21
21	BHAGAT PRAGATI DHANANJAY	10	12	22
22	GORE VIKAS MADHUKAR	13	08	21
23	GOVARDHAN BHARGAVI GOVIND	13	09	22
24	GUNJAL DEEPTI MACHINDRA	10	10	20
25	GUTTE RAJESH MUNJA	10	12	22
26	HATKAR POOJA SHANKAR	12	09	21
27	DAGADE RANI DHONDIBA	10	12	22
28	DEOSARKAR VASUNDHARA NAMDEVRAO	11	08	19
29	DHAWADE SIDDHI SANTOSH	09 ollege or	09	18
30	DHEKANE SHARANYA CHANDRASHEKHAR	(\$12	10	22

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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Discussion 10 Marks	Interview 20 Marks	Total 30 Marks
31	GAIKWAD AADITYA VINAYAK	13	09	22
32	GHUNDRE SAKSHI KISHOR	10	13	23
33	JADHAV SAYALI PRAKASH	13	09	22
34	JAGTAP PRATIK PARASRAM	09	13	22
35	JOSHI NIKHIL SUMANTRAO	10	10	20
36	KENDRE SHAILESH HARISHCHANDRA	13	13	26
37	JADHAV PRAPTI SURYAKANT	12	09	21
38	JAMADADE RANJIT ASHOK	10	12	22
39	KHICHADE PRATIMA MAHADEV	13	08	21
40	KORE ROHAN RAJKUMAR	10	12	22
41	PHALKE PRATIK KIRAN	11	08	19
42	rai shreya rajkumar	09	09	18
43	RAKSHASKAR BHAVESH VINAYAK	12	10	22
44	RANE MAYUR SANJAY	08	09	17
45	JAGTAP PRAJAKTA BAJRANG	09	13	22
46	KASTURE SNEHAL HANAMANT	10	10	20
47	PATIL ANIMESH RAMKRUSHNA	09	13	22
48	PAWAR SADHANA SANDEEP	10	10	20
49	BALURE SUKSHAMTA DIGAMBAR	13	13	26
50	BHOITE PRATIKSHA SURESH	12	09	21
51	CHAVAN VAISHNAVI VAIJNATH	10	12	22
52	DESHMUKH VAISHNAVEE GANESHRAO	13	08	21
53	DEOKAR SAAKSHI SHRIKANT	10	12	22
54	DESAI SUMEDH SANJAY	12	10	22
55	DHADGE SAVATA SANJAY	08	09	17
56	DHAS VISHAL KHANDU	09	13	22

Dr. A. R. Kumbhar Course Co-ordinator

Dr. P. D. Chaudhari Principal





## **Certificate of Health Economics and Pharmacoeconomics**



# CERTIFICATE



OF APPRECIATION

This certificate is presented to

# HOLE SANJKA V.

for Successfully completing the certificate course "Health Economics and Pharmacoeconomics" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 29/09/2023 to 10/10/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



**Director RACE Institute** 

Dr. P. D. Chaudhari Principal



# **CERTIFICATE**



OF APPRECIATION

This certificate is presented to

# HUSE ATHARVA S.

for Successfully completing the certificate course "Health Economics and Pharmacoeconomics" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 29/09/2023 to 10/10/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



Mr. Meher R. Tundulwar Director RACE Institute

Dr. P. D. Chaudhari Principal







# CERTIFICATE



OF APPRECIATION

This certificate is presented to

# JADHAV VARDHINI D.

for Successfully completing the certificate course "Health Economics and Pharmacoeconomics" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 29/09/2023 to 10/10/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar



Mr. Meher R. Tundulwar Director RACE Institute





# **CERTIFICATE**



OF APPRECIATION

This certificate is presented to

# JAGTAP ANURAG S.

for Successfully completing the certificate course "Health Economics and Pharmacoeconomics" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 29/09/2023 to 10/10/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator

Mr. Meher R. Tundulwar

**Director RACE Institute** 

Dr. P. D. Chaudhari Principal





## **Brochure of Clinical Research**



# PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI- 44



# MODERN COLLEGE OF PHARMACY, NIGDI IN COLLABORATION WITH RACE ACADEMY

Certificate Course On

**CLINICAL RESEARCH** 01/11/2023 - 08/11/2023





modernpharmacynigdi









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## **List of Student of Clinical Research**



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Sr. No	Name of Student	Sign
31	PATIL UTKARSHA CHAITANYA	Thakasha
32	THAKARE SAKSHI RAJENDRA	
33	VHANAMANE ADITYA BHIMASHANKAR	Ochy
34	BODKHE KEDAR KAILAS	Kedael:
35	GHOLAP NAMRATA AVINASH	Mamrata,
36	GORE AVINASH BHARAT	- Krone
37	GAIKWAD ANJALI SUNIL	striali
38	GANGURDE MADHURI ASHOK	Madhur
39	HAKE PALLAVI SUDHAKAR	(P. Hote
40	JADHAV MOHINI BHARAT	mohibit
41	MORE GEETANJALI PANDURANG	Landery
42	MORE VAISHNAVI SURESH	MTV Suss
43	PATHAN ADIL MUKHTAR	Mulhour
44	PATIL HARSHAL RAJESH	Dajens
45	NALE PRATHMESH ASHOK	Agriole
46	NAVGHARE PAVAN BABURAO	Buttingo
47	PATANGE AJAY PRAKASH	Denaykors
48	PATIL MEGHANA NITIN	MADI
49	BHATTACHARYA SHREEPARNA KAUSTAV	Meghaner
50	BHOSALE SHRUTI RAMCHANDRA	Perhichard
51	BHOYAR SHWETA SUKHDEO	Just aculled
52	PARKHE TEJAS SANTOSH	Tejassuns
53	PATIL NINAD BHARAT	Poblesina
54	PATIL PRADNYA PRAKASH	Dew Pranya

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





#### **Curriculum of Clinical Research**



Progressive Education Society's

## MODERN COLLEGE OF PHARMACY



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M.Pharm., Ph.D.

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Clinical Research

Course Code: NA

Syllabus

Date: 01/11/2023-08/11/2023 Course Duration: 38 hrs

**Module 1: Introduction** 

Historical background of US Drug Law and Regulations

Drug Approval Process

New Drug Development-Preclinical Steps

Investigational New Drug Application (INDA)

New Drug Application (NDA)

Abbreviated New Drug Application (ANDA)-1

Abbreviated New Drug Application (ANDA)-2

Abbreviated New Drug Application (ANDA)-3

Generic Products

Innovator-Generics-Common and Differentiating Points-1

Innovator-Generics-Common and Differentiating Points-2

NDA Vs ANDA

Clinical Research-Inclusion-Exclusion Criteria

Module 2: Definitions of key terms used in GCP

GCP and Clinical Study

Key stakeholders in a Clinical Study

Key Processes in a Clinical Study

Key Essential Documents

Investigational Products (IPs)

Definition

Module 3: Principles of ICH-GCP

Principles of GCPs and Practical Advices

Apply the GCP Principles

Apply the patient-centric Principles





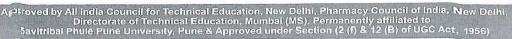




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#### Module 4: Institutional Review Board (IRB)/ Independent Ethics Committee (IEC)

Responsibilities of the Investigators towards the IRB/IEC Composition, Function and Operating Criteria of Ethics Committees Procedures and Records IRC / IEC Responsibilities

#### **Module 5: Practical Exercises**

CASE 1: GCP adherence from real site Inspection CASE 2: GCP adherence from real site Inspection

#### Module 6: Major Players in Clinical Research

Major Players in Clinical Research

Sponsor-1

Sponsor-2

Sponsor-3

Investigator-1

Investigator-2

Investigator-3

Clinical Research Associate (CRA) and Clinical Research Coordinator (CRC)

#### Module 7: Important Documents in Clinical Research

Essential Documents-1

Essential Documents-2

Protocol

Source Documents

Preview

Informed Consent-1

Informed Consent-2

Investigator's Brochure

Patient Information Sheet-Patient Information Brochure

Case Report Form (CRF)

Clinical Research Multiple Choice Questions

Bonus Materials









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#### Module 8: Clinical Trial

The Essentials of Clinical Trial Monitoring and Design Exploring Clinical Trials. From Pharmacovigilance to Precision Medicine The Importance of Clinical and Academic Research Exploring the Role of Regulatory Authorities in Clinical Research

Module 9: Glossary

Understanding Clinical Trials. A Guide to Key Terms Understanding Clinical Trials. A guide to key terms 2 Understanding Clinical Trials. A guide to key terms 3

Dr. A. R. Kumbhar Course Co-ordinator

College of one

Principal

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## **Summary of Clinical Research**



Progressive Education Society's

## MODERN COLLEGE OF PHARMACY

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Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel. : 020-27661315 Fax : 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P.D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Clinical Research Course Code: NA Date: 01/11/2023-08/11/2023 Course Duration: 38 hrs

**Summary Report** 

	Summary Report
Type of Program	Certificate Course on Clinical Research
Period	1 <sup>st</sup> November 2023 – 8 <sup>th</sup> November 2023 (38 hrs),
BriefReport	A certificate course in Clinical Research was conducted at the institute in Collaboration with Elite institute of Pharma skills, Pune. The course was held between 1st November 2023 – 8th November 2023 (38 hrs). The course covered varied topics like in Module I students were introduced to the stages of new drug development, including preclinical steps, Investigational New Drug Applications (INDA), and New Drug Applications (NDA). Module IV Students provided an This module describes the responsibilities of investigators towards IRBs/IECs, their composition, operational criteria, and procedural standards. An overview of essential documents required in clinical research is provided, including protocols, informed consent forms, investigator brochures, and patient information sheets. 54 students at the institute enrolled for this course. The chief course conductors were Elite institute of Pharma skills.  Overall, the Clinical Research course provided participants with a comprehensive understanding of the key concepts, clinical research, GCP adherence, regulatory compliance, and the operational intricacies of drug development and clinical trials. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of Pharm D and well supported by the administrative and non –teaching staff.
POs attained	PO1 -PO11

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





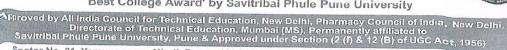
### **Attendance of Clinical Research**



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2022-23

Name of Course: Clinical Research Course Code: NA

Date: 01/11/2023-08/11/2023

Course Duration: 38 hrs

Attendance

Sr.	Name of Students	01/11/23	02/11/23	03/11/23	04/11/23	06/11/23	07/11/23	08/11/23
1	SANAP PUJA ASHOK	P	P	A	P	P	A	P
2	SARADE VAIBHAV SATISH	P	A					
3	SHAIKH NUMAN SALIM	A	P	P	6	A	A	P
	SHEWALE PURUSHOTTAM		P	P	A	P	P	A
4	SATISH	P	P	A	P	P	A	P
5	JADHAV ANIKET ANAND	A	P	P	P	A	P	-
	JADHAV ASHWINI						P	P
6	DNYANESHWAR	P	P	P	A	P	A	A
7	JAIN SIDDHI PRATAP	2	P		^	P	A	
8	AMRUTKAR SACHIN EKNATH	A	P	P	A	A	P	P
9	ANDRE DISHA YASHWANT	P	A	A	P	P	P	A
10	ATTARKAR YASH GANESH	P	P	P	A	Р	A	
	THOMBARE SANIKA							P
11	DNYANESHWAR	P	A	A	- P	P	P	A
2	THORAT KIRTI BABULAL	A	P	P	A	P	P	P
3	VAIRAT UDDHAV BHANUDAS	P	A	P	A	P	A	P
4	VAYAL SHREYA SANDEEP	P	P	0	P	P	A	P
2	FUNDE GIRISH PRAMOD	A	P	P	ρ	P	P	A
6	GAIKWAD ANISH ARUN	P	A	A	P		Р	P
7	GALANDE SHUBHAM VIJAY	A	P	P	A	P	P	P
8	GAMBHIR SUYASH DEEPAK	P	P	A	P	P	A	P
9	SOLANKE OMKAR SHIVAJI	Å	P	P	P	A	P	P
	SOMWANSHI YOGESH							
0.0	DHONDIRAM	P	A	P	A	P	P	P
1	SONAWANE SWEETY ASHOK	P	P	A	P	A	P	P
2	SONTAKKE RUTUJA KIRAN		P	P	A	P	A	P
3	GARKAL ASHISH VISHNU	A	P	0	P	A	P	
4	GHUIKAR SHREYASH ARUN	D	A	P	A	P		P
5	GONDE DIPAK PANDURANG	A	P	P	P	A	P	P
6	PAWAR RUTWIK CHANDRAKANT		A	D	P	P	A	P
7	PAWAR SANDESH BHAUSAHEB	PA	P	A	P	P	A	P
8	DHAMAL SAKSHI SANJAY	P	P	Je o P	P	A	P	A
9	DIGHE YOGITA GANPAT	P	A COMO	A	The contract of the contract of	P	P	P
0	DOIFODE KOMAL JOTIRAM	P	6	Pal	P	P	A	P

Page 1 of 2







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Sr.	Name of Students	01/11/23	02/11/23	03/11/23	04/11/23	06/11/23	07/11/23	08/11/23
31	PATIL UTKARSHA CHAITANYA	P	P	A	P	P	P	P
32	THAKARE SAKSHI RAJENDRA	P	P	P	A	P	A	P
-33	VHANAMANE ADITYA BHIMASHANKAR	P	P	P	P	P	12	A
54	BODKHE KEDAR KAILAS	P	P	P	P	P	P	P
35	GHOLAP NAMRATA AVINASH	A	P	P	P	3	P	P
36	GORE AVINASH BHARAT	D	A	P	P	A	P	9
37	GAIKWAD ANJALI SUNIL	P	P	P	P	P	A	P
38	GANGURDE MADHURI ASHOK	9	P	P	P	A	P	A
39	HAKE PALLAVI SUDHAKAR	A	P	A	P	A	P	P
40	JADHAV MOHINI BHARAT	P	P	P	P	A	R	P
41	MORE GEETANJALI PANDURANG	A	P	P	P	P	P	A
42	MORE VAISHNAVI SURESH	P	P	A	P	P	P	P
43	PATHAN ADIL MUKHTAR	P	P	P	P	A	P	P
44	PATIL HARSHAL RAJESH	P	P	P	P	A	P	P
45	NALE PRATHMESH ASHOK	A	P	A	p ·	9	P	P
46	NAVGHARE PAVAN BABURAO	P	P	P	P	A	P	P
47	PATANGE AJAY PRAKASH	P	P	'A	Pe	P	A	P
48	PATIL MEGHANA NITIN	A	P	X	P	P	A	P
),	BHATTACHARYA SHREEPARNA KAUSTAV	P	P	P	P	A	A	P
50	BHOSALE SHRUTI RAMCHANDRA	A	P	P	P	P	<i>A</i>	A
51	BHOYAR SHWETA SUKHDEO	P	P	P	P	A	P	P
52	PARKHE TEJAS SANTOSH	P	P	P	P	P	A	P
53	PATIL NINAD BHARAT	A	P	9	P	P	P	1
54	PATIL PRADNYA PRAKASH	P	P	P	P	A	P	P

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





#### **Assessment of Clinical Research**



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2023-24

Name of Course: Clinical Research Course Code: NA

Date: 01/11/2023-08/11/2023 Course Duration: 38 hrs

Assessment

Sr. No	Name of Student	Panel Interview 20 Marks
1	SANAP PUJA ASHOK	18
2	SARADE VAIBHAV SATISH	17
3	SHAIKH NUMAN SALIM	19
4	SHEWALE PURUSHOTTAM SATISH	16
5	JADHAV ANIKET ANAND	15
6	JADHAV ASHWINI DNYANESHWAR	- 17
7	JAIN SIDDHI PRATAP	19
8	AMRUTKAR SACHIN EKNATH	16
9	ANDRE DISHA YASHWANT	18
10	ATTARKAR YASH GANESH	16
11	THOMBARE SANIKA DNYANESHWAR	15
12	THORAT KIRTI BABULAL	17
13	VAIRAT UDDHAV BHANUDAS	19
14	VAYAL SHREYA SANDEEP	16
15	FUNDE GIRISH PRAMOD	16
16	GAIKWAD ANISH ARUN	15
17	GALANDE SHUBHAM VIJAY	17
18	GAMBHIR SUYASH DEEPAK	19
19	SOLANKE OMKAR SHIVAJI	16
20	SOMWANSHI YOGESH DHONDIRAM	19
21	SONAWANE SWEETY ASHOK	16
22	SONTAKKE RUTUJA KIRAN	16
23	GARKAL ASHISH VISHNU	15
24	GHUIKAR SHREYASH ARUN	19
25	GONDE DIPAK PANDURANG	16
26	PAWAR RUTWIK CHANDRAKANT	19
27	PAWAR SANDESH BHAUSAHEB	16
28	DHAMAL SAKSHI SANJAY College of	15
29	DIGHE YOGITA GANPAT	17
30	DOIFODE KOMAL JOTIRAM	19







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Sr. No	Name of Student	Panel Interview 20 Marks
31	PATIL UTKARSHA CHAITANYA	15
32	THAKARE SAKSHI RAJENDRA	17
33	VHANAMANE ADITYA BHIMASHANKAR	19
34	BODKHE KEDAR KAILAS	19
35	GHOLAP NAMRATA AVINASH	16
36	GORE AVINASH BHARAT	18
37	GAIKWAD ANJALI SUNIL	16
38	GANGURDE MADHURI ASHOK	15
39	HAKE PALLAVI SUDHAKAR	19
40	JADHAV MOHINI BHARAT	16
41	MORE GEETANJALI PANDURANG	18
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50	BHOSALE SHRUTI RAMCHANDRA	19
51	BHOYAR SHWETA SUKHDEO	19
52	PARKHE TEJAS SANTOSH	16
53	PATIL NINAD BHARAT	18
54	PATIL PRADNYA PRAKASH	16
55	PATIL UTKARSHA CHAITANYA	19
56	THAKARE SAKSHI RAJENDRA	16

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





#### **Certificate of Clinical Research**



# CERTIFICATE



THIS CERTIFICATE IS PROUDLY PRESENTED TO

## SHAIKH NUMAN S.

for Successfully completing the certificate course "Clinical Research" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 01/11/2023 to 08/11/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



Mr. Meher R. Tundulwar **Director RACE Institute** 



Principal



# CERTIFICATE



THIS CERTIFICATE IS PROUDLY PRESENTED TO

## SARADE VAIBHAV S.

for Successfully completing the certificate course "Clinical Research" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 01/11/2023 to 08/11/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



Mr. Meher R. Tundulwar **Director RACE Institute** 

Dr. P. D. Chaudhari Principal







# RTIFICA



THIS CERTIFICATE IS PROUDLY PRESENTED TO

## IADHAV ANIKET A.

for Successfully completing the certificate course "Clinical Research" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 01/11/2023 to 08/11/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



Mr. Meher R. Tundulwar **Director RACE Institute** 



Principal



# CERTIFICATE



THIS CERTIFICATE IS PROUDLY PRESENTED TO

## SHEWALE PURUSHOTTAM S.

for Successfully completing the certificate course "Clinical Research" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 01/11/2023 to 08/11/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



Mr. Meher R. Tundulwar **Director RACE Institute** 

Dr. P. D. Chaudhari

Principal





## **Brochure of Generative AI in Pharmacovigilance**



## PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI-44



MODERN COLLEGE OF PHARMACY, NIGDI IN COLLABORATION WITH **RACE ACADEMY** 

Certificate Course On **GENERATIVE AI IN PHARMACOVIGILANCE** 

21/11/2023 - 30/11/2023





modernpharmacynigdi









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## List of Students Generative AI in Pharmacovigilance



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Generative AI in Pharmacovigilance Course Code: NA

Date: 21/11/2023-30/11/2023

Sian

Course Duration: 40 hrs

#### List of Students

1 AANDIIALKAR PRATIKSHA DHANANJAY 2 ALSUNDKAR ATHARV SHRIKANT 3 GURAV VIGHNESH SHAILENDRA 4 HANDE RUSHIKESH KAMALAKAR 5 SUDKE VEDANTI RAJESH 6 TAMBOLI KHATIJA KONDAJI 7 JAGTAP VAIBHAV ANNASAHEB 8 JAMADAR YASHPAL MANSING 9 JANE ACHAL SUDHIR 10 BOBADE DURGA MANOJ 11 BOOKHE SHRINATH BALAJI 12 JAGTAP BHARGAV BAPU 13 JAGTAP SAYALI SUNIL 14 JAMADADE DHANASHRI SANTOSH 15 JOSHI ATHARVA PRAFUL 16 KAMBLE ANUSHKA ANIL 17 DHERE SWAMINI SANTOSH 18 DOSHI SOHAM SHEKHAR 19 ATTARDE HITESH YASHWANT 20 AUTADE PRADNYA KALLYAN 21 BABHALKAR ADITYA LAXMAN 22 BAGADE SNEHAL SANJAY 23 BHAWARE PRIYA REKYA 24 BENKE SAMIKSHA CHANDRASHEKHAR 25 SURYAWANSHI MONIKA LAXMANAO 26 ULMULE ANIKET SHIVAJI 27 WAGHMARE SRUSHTI SURESH 28 SHINDE GAUREE SANJAY 29 WAGHMADE DARSHANA DEVIDAS 30 WARADE SMITA MADHAV	Sr. No	Name of Student	Sign
2 ALSUNDKAR ATHARV SHRIKANT 3 GURAV VIGHNESH SHAILENDRA 4 HANDE RUSHIKESH KAMALAKAR 5 SUDKE VEDANTI RAJESH 6 TAMBOLI KHATIJA KONDAJI 7 JAGTAP VAIBHAV ANNASAHEB 8 JAMADAR YASHPAL MANSING 9 JANE ACHAL SUDHIR 10 BOBADE DURGA MANOJ 11 BODKHE SHRINATH BALAJI 12 JAGTAP BHARGAV BAPU 13 JAGTAP SAYALI SUNIL 14 JAMADADE DHANASHRI SANTOSH 15 JOSHI ATHARVA PRAFUL 16 KAMBLE ANUSHKA ANIL 17 DHERE SWAMINI SANTOSH 18 DOSHI SOHAM SHEKHAR 19 ATTARDE HITESH YASHWANT 20 AUTADE PRADNYA KALLYAN 21 BABHALKAR ADITYA LAXMAN 22 BAGADE SNEHAL SANJAY 23 BHAWARE PRIYA REKYA 24 BENKE SAMIKSHA CHANDRASHEKHAR 25 SURYAWANSHI MONIKA LAXMANAO 26 ULMULE ANIKET SHIVAJI 27 WAGHMARE SRUSHTI SURESH 28 SHINDE GAUREE SANJAY 29 WAGHMODE DARSHANA DEVIDAS		AANDHALKAR PRATIKSHA DHANANJAY	week telle
3 GURAV VIGHNESH SHAILENDRA 4 HANDE RUSHIKESH KAMALAKAR 5 SUDKE VEDANTI RAJESH 6 TAMBOLI KHATIJA KONDAJI 7 JAGTAP VAIBHAV ANNASAHEB 8 JAMADAR YASHPAL MANSING 9 JANE ACHAL SUDHIR 10 BOBADE DURGA MANOJ 11 BODKHE SHRINATH BALAJI 12 JAGTAP BHARGAV BAPU 13 JAGTAP SAYALI SUNIL 14 JAMADADE DHANASHRI SANTOSH 15 JOSHI ATHARVA PRAFUL 16 KAMBLE ANUSHKA ANIL 17 DHERE SWAMINI SANTOSH 18 DOSHI SOHAM SHEKHAR 19 ATTARDE HITESH YASHWANT 20 AUTADE PRADNYA KALLYAN 21 BABHALKAR ADITYA LAXMAN 22 BAGADE SNEHAL SANJAY 23 BHAWARE PRIYA REKYA 24 BENKE SAMIKSHA CHANDRASHEKHAR 25 SURYAWANSHI MONIKA LAXMANRAO 26 ULMULE ANIKET SHIVAJI 27 WAGHMARE SRUSHTI SURESH 28 SHINDE GAUREE SANJAY 29 WAGHMODE DARSHANA DEVIDAS  OTHER SAMINE  19 ATGRICANO ANIKAT SHIVAJI 21 WAGHMARE SRUSHTI SURESH 22 WAGHMODE DARSHANA DEVIDAS	2		
4 HANDE RUSHIKESH KAMALAKAR  5 SUDKE VEDANTI RAJESH  6 TAMBOLI KHATIJA KONDAJI  7 JAGTAP VAIBHAV ANNASAHEB  8 JAMADAR YASHPAL MANSING  9 JANE ACHAL SUDHIR  10 BOBADE DURGA MANOJ  11 BODKHE SHRINATH BALAJI  12 JAGTAP BHARGAV BAPU  13 JAGTAP SAYALI SUNIL  14 JAMADADE DHANASHRI SANTOSH  15 JOSHI ATHARVA PRAFUL  16 KAMBLE ANUSHKA ANIL  17 DHERE SWAMINI SANTOSH  18 DOSHI SOHAM SHEKHAR  19 ATTARDE HITESH YASHWANT  20 AUTADE PRADNYA KALLYAN  21 BABHALKAR ADITYA LAXMAN  22 BAGADE SNEHAL SANJAY  23 BHAWARE PRIYA REKYA  24 BENKE SAMIKSHA CHANDRASHEKHAR  25 SURYAWANSHI MONIKA LAXMANAO  26 ULMULE ANIKET SHIVAJI  27 WAGHMARE SRUSHTI SURESH  28 SHINDE GAUREE SANJAY  19 WAGHMADE DARSHANA DEVIDAS  19 WAGHMODE DARSHANA DEVIDAS	3		
5 SUDKE VEDANTI RAJESH 6 TAMBOLI KHATIJA KONDAJI 7 JAGTAP VAIBHAV ANNASAHEB 8 JAMADAR YASHPAL MANSING 9 JANE ACHAL SUDHIR 10 BOBADE DURGA MANOJ 11 BODKHE SHRINATH BALAJI 12 JAGTAP BHARGAV BAPU 13 JAGTAP SAYALI SUNIL 14 JAMADADE DHANASHRI SANTOSH 15 JOSHI ATHARVA PRAFUL 16 KAMBLE ANUSHKA ANIL 17 DHERE SWAMINI SANTOSH 18 DOSHI SOHAM SHEKHAR 19 ATTARDE HITESH YASHWANT 20 AUTADE PRADNYA KALLYAN 21 BABHALKAR ADITYA LAXMAN 22 BAGADE SNEHAL SANJAY 23 BHAWARE PRIYA REKYA 24 BENKE SAMIKSHA CHANDRASHEKHAR 25 SURYAWANSHI MONIKA LAXMANAO 26 ULMULE ANIKET SHIVAJI 27 WAGHMARE SRUSHTI SURESH 28 SHINDE GAUREE SANJAY 29 WAGHMODE DARSHANA DEVIDAS		HANDE RUSHIKESH KAMALAKAR	(K) Kumb
6 TAMBOLI KHATIJA KONDAJI 7 JAGTAP VAIBHAV ANNASAHEB 8 JAMADAR YASHPAL MANSING 9 JANE ACHAL SUDHIR 10 BOBADE DURGA MANOJ 11 BODKHE SHRINATH BALAJI 12 JAGTAP BHARGAV BAPU 13 JAGTAP SAYALI SUNIL 14 JAMADADE DHANASHRI SANTOSH 15 JOSHI ATHARVA PRAFUL 16 KAMBLE ANUSHKA ANIL 17 DHERE SWAMINI SANTOSH 18 DOSHI SOHAM SHEKHAR 19 ATTARDE HITESH YASHWANT 20 AUTADE PRADNYA KALLYAN 21 BABHALKAR ADITYA LAXMAN 22 BAGADE SNEHAL SANJAY 23 BHAWARE PRIYA REKYA 24 BENKE SAMIKSHA CHANDRASHEKHAR 25 SURYA WANSHI MONIKA LAXMANAO 26 ULMULE ANIKET SHIVAJI 27 WAGHMARE SRUSHTI SURESH 28 SHINDE GAUREE SANJAY 29 WAGHMODE DARSHANA DEVIDAS	5		
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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

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Dr. A. R. Kumbhar Course Co-ordinator



P. D. Chaudhari Principal





## **Curriculum of Generative AI in Pharmacovigilance**



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#### 2023-24

 $N_{ame}$  of Course: Generative AI in Pharmacovigilance  $C_{ourse}$  Code:  $N_{A}$ 

Date: 21/11/2023-30/11/2023 Course Duration: 40 hrs

#### Syllabus

Module 1: Generative AI - An Introduction

What is Generative AI

Al Vs Generative AI: What's the Difference?

Technology that Powers Generative AI

History and Evolution of Generative AI

Generative AI Capabilities in Pharmacovigilance - 1&2

Industry Insights - How Pharma Companies leverage Generative AI

Module 2: Choose the right product: All about Gen AI Product

Generative AI Products on the Market

Chat GPT and Chat GPT Plus - Personal Productivity Version

Chat GPT Teams and Enterprise - Business Use Version

Open AI Developer Platform - Developer Version

Generative AI Product to use in this tutorial

Enterprise Level Expectations - Pharmacovigilance Context

**Module 3: Prompt Engineering** 

Basics of Prompt Engineering - Context, Persona and Tone

Zero Shot and Few Shot Prompting

Chain of Thought - Prompting Technique

Module 4: Personal Productivity of business analyst - MedDRA Implementation

Responsibilities of a Business Analyst

Document Smart User Stories for End User Requirements

Create Step-By-Step Test Scripts for Validation Testing Preview

Section Conclusion and a Question for you

Module 5: Summarize Literature Research and GVP Module

Text Summarization with Good Pharmacovigilance Practices (Theory)

Text Summarisation for GVP Audits and Inspections (Lab)

Lab on Text Summarization - Literature on Solifenacin Drug

Conclusion and Other Use Cases of Text Summarization

Text Summarization Assignment







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## Module 6: Write Narrative Summary with Generative AI – Is a Value Add Use Case

What is Narrative Writing?

Narrative Writing with Generative AI - The Benefits?

Narrative Writing with Generative AI - Lab

Conclusion and a Gartner Report - Narrative Writing using Generative AI

Establish Yourself as a Thought Leader - Publish a White Paper

## Module 7: Data Analysis in PV Operations: A Transformation with Generative AI

Data Analysis - The Significance

Source and Types of Data in Pharmacovigilance Operations

Pharmacovigilance Operational Data Analysis - Theory

Operational Data Analysis with Generative AI - Lab

Visualisation of Product Data with ChatGPT

Demonstration of Data Visualisation with Generative AI

Can you Transform Drug Safety Operations in your Organization

## Module 8: Language Translation: The Possibilities and Limitations

Language Translation in Pharmacovigilance - Theory

Is Machine Translation a New Thing?

Current Landscape of Machine Translation

Language Translation using ChatGPT and Google Gemini - Lab

Language Translation - Evaluation Approaches

Language Translation using Generative AI - The Conclusion

Selection of Generative AI Based Translation System

#### Module 9: Build a Custom GPT

Build a Custom GPT (Theory)

Build a Custom GPT (Lab)

## Module 10: Drug Safety Documentation with Generative AI

Make Right Decision with Generative AI: Build a Solid Project Charter

Practice Test - Compare Project Charter creating using ChatGPT and Co-Pilot

Develop Project Charter Interactively with ChatGPT

Flow Diagrams With Generative AI: Let's Test the Reality

GDP Based Document Review: Produce Compliant Documentation





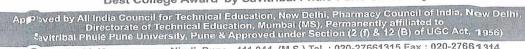




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Module 11: Implement Generative AI Realtime: Approach, Issues and Resolution

Integrating Generative AI into Drug Safety Systems Workflow
ChatGPT with Custom Data
Issues with Generative AI - Hallucination
Consistency Vs Creativity - What is Important in Pharmacovigilance
Prompt Engineering for Pharmacovigilance Professionals
Content Grounding - Feed your data to Generative AI

Module 12: Remain Compliment: Global AI Regulations for Generative AI Solutions

Section Introduction by Instructor
Impact of New EU Law for Generative AI Applications
FDA's Expectations on Implementing AI/ML Systems
How to Implement the Regulations in Generative AI Solutions

Module 13: AI Horizons: Recent Trends and Cutting-Edge Research

What is Latest - GPT 40 model What is Latest - Open AI SORA Text to Video Model Generative AI Products - Microsoft Copilot Generative AI Products - Google GeminiYour Research Area

Module 14: The AI Advantages: Wrapping up Your Learning Journey

Dr. A. R. Kumbhar Course Co-ordinator



Dr.P. D. Chaudhari Principal

Page 3 of 3





## **Summary of Generative AI in Pharmacovigilance**



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2023-24

Name of Course: Generative AI in Pharmacovigilance

Date: 21/11/23 - 30/11/23

Course Code: NA

Course Duration: 40 hrs

**Summary Report** 

Type of Program	Certificate Course on Generative AI in Pharmacovigilance
Period	21 <sup>st</sup> November 2023 – 30 <sup>th</sup> November 2023 (40 hrs)
Brief Report	A certificate course in Generative AI in Pharmacovigilance was conducted at the institute in Collaboration with Elite institute of Pharma skills, Pune. The course was held between 21st November 2023 – 30th November 2023 (40 hrs) This course provides a comprehensive overview of Generative AI and its transformative role in pharmacovigilance. It begins with foundational knowledge, including the evolution, technology, and capabilities of Generative AI, with insights into its application by pharmaceutical companies. Learners explore how to select and implement Generative AI products tailored to business and enterprise needs. Key skills in prompt engineering are covered, introducing techniques like zero-shot and chain-of-thought prompting. The course also addresses language translation, custom GPT development, and drug safety documentation. Advanced topics include real-time integration of Generative AI into workflows, handling challenges like hallucination, and ensuring compliance with global AI regulations (e.g., EU laws, FDA expectations). Cutting-edge developments, such as GPT-40 and SORA models, are highlighted. 55 students at the institute enrolled for this course. The chief course conductors were Elite institute of Pharma skills.
2	Overall, Generative AI in Pharmacovigilance Course provided participants with focus on applying these tools to enhance drug safety operations and remaining at the forefront of AI innovations in pharmacovigilance. This course explores the transformative role of Generative AI in pharmacovigilance, covering its evolution, applications, and integration into drug safety workflows. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of PharmD and well supported by the administrative and non—teaching staff.
POs attained	PO1 –PO11

Dr. A. R. Kumbhar Course Co-ordinator

D. Chaudhari Principal





## Attendance of Generative AI in Pharmacovigilance



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2022-23

Name of Course: Generative AI in Pharmacovigilance

Course Code: NA

Date: 21/11/2023-30/11/2023 Course Duration: 40 hrs

#### Attendance

	Name of Students	21/11/23	22/11/23	23/11/23	24/11/23	25/11/23	28/11/23	29/11/23	30/11/23
No	AANDHALKAR PRATIKSHA		1		0	P	0	P	A
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3	GURAVVIGHNESH SHAILENDRA	P	P	A	P	P	A	P	P
4	HANDERUSHIKESH KAMALAKAR	P	A	P	P	P	P	P	P
5	SUDK E VEDANTI RAJESH	A	P	P	P	P	P	P	P
6	TAMBOLI KHATIJA KONDAJI	P	P	P	A	P	P	A	P
7	JAGTAP VAIBHAV ANNASAHEB	A	P	P	P	A	p	P	P
8	JAMADAR YASHPAL MANSING	A	A	P	P	P	P	P	P
9	JANE ACHAL SUDHIR	P	P	A	P	P	P	P	A
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15	JOSHI ATHARVA PRAFUL	P	P	P	P	P	P	A	A
16	KAMBLE ANUSHKA ANIL	P	P	A	A	P	P	P	P
17	DHERE SWAMINI SANTOSH	A	P	P	A	P	P	P	P
18	DOSHI SOHAM SHEKHAR	P	P	P	P	P	P	A	P
19	ATTARDE HITESH YASHWANT	P	P	P	A	P	P	P	P
20	AUTADE PRADNYA KALLYAN	P	P	P	P	A	A	P	P
21	BABHALKAR ADITYA LAXMAN	P	P	A	P	P	Р	A	P
22	BAGADE SNEHAL SANJAY	P	P	P	P	P	P	A	H
23	BHAWARE PRIYA REKYA	A	P	P	A	P	P	P	P
24	BENKE SAMIKSHA CHANDRASHEKHAR	P	Р	A	P	olege P	P	P	A
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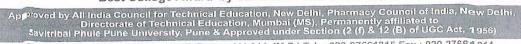




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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr.	Name of Students	21/11/23	22/11/23	23/11/23	24/11/23	25/11/23	28/11/23	29/11/23	30/11/23
No 26	ULMULE ANIKET SHIVAJI	P	P	A	P	P	P	A	P
	WAGHMARE SRUSHTI SURE SH	A	P	P	P	A	P	P	·P
27	SHINDE GAUREE SANJAY	A	A	P	P	P	P	P	P
29	WAGHMODE DARSHANA DEVIDAS	P	P	A	P	P	A	P	P
30	WARADE SMITA MADHAV	P	A	P	P	P	P	A	P
31	DAPHALE NAMRATA JAYWANT	P	P	P	A	P	P	P	A
32	GAMBHIRE RAHUL RAMDAS	A	P	P	P	P	10	P	A
33	MORE ABHIJEET PRABHAKAR	P	A	P	P	A	P	P	
34	SHAIKH FIZA VAHED	P	P	A	P	A	P	P	P
35	VERNEKAR PURVA VIGHNESHWAR	P	P	P	A	P	P	P	P
36	BARDENEHA AMOL	P	P	A	P	P	P	P	P
37	BIRADAR ALFIYA MAHIBUB	P	A	P	P	A	P	P	P
38	GHOTEKAR KALYANI SHANTARAM	A	P	P	P	P	P	P	P
39	HALNE KRISHNA GANGADHAR	P	P	A	P	P	P	P	P
40	JADHAV SNEHA SATISH	P	A	P	P	A	P	P	P
41	BAKALE SAYALI SHIVRAJ	P	P	P	A	P	P	P	A
42	BENDGA TUSHAR SANTYA	P	A	P	P	A	P	P	P
43	BHANGE SHARDUL SANTOSHRAO	A	P	A	P	P	P	P	P
44	DESHMUKH RITESH SANTOSHRAO	A	P	P	P	P	Α	P	P
45	DONGARE AVANI RAVINDRA	P	P	A	P	A	P	P	P
46	GITE MANASVI SHARAD	P	A	P	P	P	A	P	P
47	CHAVAN VAISHNAVI SANTOSH	Р	P	P	P	A	P	P	A
48	CHEKE VAISHNAVI VITTHAL	Р	P	P	P	P	P	P	A
49	NAGARE SHWETA SHIRISH	A	P	P	P	P	P	P	10
50	PAGADALA LAASYARATNA DURGAPRASAD	P	A	P	P	P	P	P	P





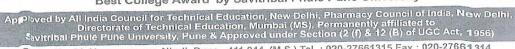




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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr.	Name of Students	21/11/23	22/11/23	23/11/23	24/11/23	25/11/23	28/11/23	29/11/23	30/11/22
No				0	D	10	D	A	P
51	SANA PNIKITA BABASAHEB	P	P	P	-		0		5
1	SAVALIKIRTI SUBHASH	A	P	P	P	P	P		P
	PANCHABHAI PUSHKAR	P	P	A	P	P	P	A	P
53	KISHOR	-	5	0	D	1	P	P	P
54	PATIL SWAPNIL VIJAYKUMAR	P	P	P		0	2	0	D
55	SAYYED AJMAT SAMEER	P	A	P	P	1 1	P		1

Dr. A. R. Kumbhar Course Co-ordinator

Principal

Page 3 of 3





## **Assessment of Generative AI in Pharmacovigilance**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Generative AI in Pharmacovigilance

Course Code: NA

Date: 21/11/2023-30/11/2023 Course Duration: 40 hrs

Y .. A ........ lorn

#### Assessment

Sr. No	Name of Student	Interview 20 Marks
1	AANDHALKAR PRATIKSHA DHANANJAY	19
2	ALSUNDKAR ATHARV SHRIKANT	17
3	GURAV VIGHNESH SHAILENDRA	19
4	HANDE RUSHIKESH KAMALAKAR	18
5	SUDKE VEDANTI RAJESH	15
6	TAMBOLI KHATIJA KONDAJI	18
7	JAGTAP VAIBHAV ANNASAHEB	19
8	JAMADAR YASHPAL MANSING	19
9	JANE ACHAL SUDHIR	15
10	BOBADE DURGA MANOJ	18
11	BODKHE SHRINATH BALAJI	15
12	JAGTAP BHARGAV BAPU	16
13	JAGTAP SAYALI SUNIL	19
14	JAMADADE DHANASHRI SANTOSH	15
15	JOSHI ATHARVA PRAFUL	. 17
16	KAMBLE ANUSHKA ANIL	19
17	DHERE SWAMINI SANTOSH	19
18	DOSHI SOHAM SHEKHAR	19
19	ATTARDE HITESH YASHWANT	15
20	AUTADE PRADNYA KALLYAN	17
21	BABHALKAR ADITYA LAXMAN	18
22	BAGADE SNEHAL SANJAY	17
23	BHAWARE PRIYA REKYA	15
24	BENKE SAMIKSHA CHANDRASHEKHAR	15
25	SURYAWANSHI MONIKA LAXMANRAO	17
26	ULMULE ANIKET SHIVAJI	19
27	WAGHMARE SRUSHTI SURESH	15
28	SHINDE GAUREE SANJAY	19
29	WAGHMODE DARSHANA DEVIDAS	18
30	WARADE SMITA MADHAV	19 17



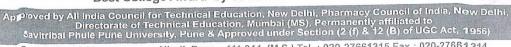




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Sr. No	Name of Student	Interview 20 Marks	
31	DAPHALE NAMRATA JAYWANT	15	
32	GAMBHIRE RAHUL RAMDAS	17	
33	MORE ABHIJEET PRABHAKAR	19	
34	SHAIKH FIZA VAHED	15	
35	VERNEKAR PURVA VIGHNESHWAR	19	
36	BARDE NEHA AMOL	18	
37	BIRADAR ALFIYA MAHIBUB	17	
38	GHOTEKAR KALYANI SHANTARAM	15	
39	HALNE KRISHNA GANGADHAR	17	
40	JADHAV SNEHA SATISH	19	
41	BAKALE SAYALI SHIVRAJ	18	
42	BENDGA TUSHAR SANTYA	15	
43	BHANGE SHARDUL SANTOSHRAO	19	
44	DESHMUKH RITESH SANTOSHRAO	17	
45	DONGARE AVANI RAVINDRA	19	
46	GITE MANASVI SHARAD	17	
47	CHAVAN VAISHNAVI SANTOSH	19	
48	CHEKE VAISHNAVI VITTHAL	19	
49	NAGARE SHWETA SHIRISH	18	
50	PAGADALA LAASYARATNA DURGAPRASAD	15	
51	SANAP NIKITA BABASAHEB	19	
52	SAVALI KIRTI SUBHASH	17	
53	PANCHABHAI PUSHKAR KISHOR	19	
54	PATIL SWAPNIL VIJAYKUMAR	17	
55	SAYYED AJMAT SAMEER	19	

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal





## Certificate of Generative AI in Pharmacovigilance



# CERTIFICATE OF APPRECIATION



This certificate is proudly presented to

## **ALSUNDKAR ATHARV S.**

for Successfully completing the certificate course **"Generative AI in Pharmacovigilance"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 21/11/2023 to 30/11/2023. His/Her Participation is highly appreciated.





Dr. P. D. Chaudhari



# CERTIFICATE OF APPRECIATION



This certificate is proudly presented to

## HANDE RUSHIKESH K.

for Successfully completing the certificate course **"Generative Al in Pharmacovigilance"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-4II044 in association with RACE Institute from 2I/II/2023 to 30/II/2023. His/Her Participation is highly appreciated.

Dr. A. R. Kumbhar Co-ordinator Mr. Meher R. Tundulwar Director RACE Institute

Dr. P. D. Chaudhari Principal







# CERTIFICATE OF APPRECIATION



This certificate is proudly presented to

## **GURAV VIGHNESH S.**

for Successfully completing the certificate course "Generative AI in Pharmacovigilance" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-4l1044 in association with RACE Institute from 2l/ll/2023 to 30/ll/2023. His/Her Participation is highly appreciated.





Dr. P. D. Chaudhari Principal



# CERTIFICATE OF APPRECIATION



This certificate is proudly presented to

## SUDKE VEDANTI R.

for Successfully completing the certificate course **"Generative Al in Pharmacovigilance"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-4II044 in association with RACE Institute from 2I/II/2023 to 30/II/2023. His/Her Participation is highly appreciated.

Dr. A. R. Kumbhar Co-ordinator

Mr. Meher R. Tundulwar
Director RACE Institute

Dr. P. D. Chaudhari Principal





## **Brochure of Communication Skills for Pharmacists**



# PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI- 44



## MODERN COLLEGE OF PHARMACY, NIGDI

IN COLLABORATION WITH RACE ACADEMY

# Certificate Course On COMMUNICATION SKILLS FOR **PHARMACIST**

05/12/2023 - 13/12/2023





modernpharmacynigdi













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#### List of students of Communication Skills for Pharmacists



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Prof. Dr. P.D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: Communication Skills for Pharmacists

Course Code: NA

Date: 05/12/2023-13/12/2023 Course Duration: 35 hrs

#### List of Students

Sr. No	Name of Student	Sign
1	WANKHEDE ARADHYA ANKUSH	Arygwankhede
2	WARTALE VAISHNAVI DATTA	Carmari
3	JADAR TRUPTI ASHOK	trupti sauheis
4	JADHAV ANUSHKA	AnishAz
5	JADHAV MANIK SOMDEV	sushan
6	JADHAV PRACHI EKNATH	prachi
7	SHINDE DNYANESHWAR JAGANNATH	DyanmourMinde
8	SHINDE TEJAS ZUMBARRAO	legranhinde
9	TAUR DIPAK DADASAHEB	pigons
10	WAGHAMARE DHANASHRI BHAGVAN	shangston
11	WATPALWAD SACHIN SHANKAR	sachin
12	CHAUKATE PRERANA ADINATH	breward
13	CHAVAN ARATI SANTOSH	Araticharon
14	CHORGHADE VIJAY NAMDEV	Rigary
15	VARAT TUSHAR RAJABHAU	Shriterumolum
16	WAKUDE SHRIKRUSHNA SANTOSH	yarbyhribns
17	WANKHADE YASH PRAMOD	Yash
18	WANKHEDE KHUSHI KAILAS	phish.
19	SAMBARE DATTATRAY SHRIKRUSHNA	3 And + Francis
20	SAPKAL TUSHAR SHRIMANT	whom
21	SAWANT GANESH RAGHUNATH	Cyanop Sourcer
22	SAWANT OMKAR RAVINDRA	Gm das
23	BHOI HEMANT VIJAY	VI)'99
24	BORA SANKET RAJENDRA	sunkla
25	JADHAV KISHORI NANDKUMAR	James Vo
26	MORKHADE SHIVANI	shi vaniz
2.7	SALAME VEDIKA NARENDRASINGH	Vedika Surane
28	SALUNKE NIKITA SATYAWAN	Michta
29	SALUNKHE RUPALI BHAGVAN	purais salunsh
30	SARGAR LALIT RAJARAM	OLargon









(1)

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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Sign
31	BORUDE SNEHAL TUKARAM	(Sacharla Joruse:
32	DEULKAR ANUSHRI ASHOK	Same.
33	INGLE SAMRUDDHI GANESH	os mysthie.
34	JAGDALE GAYATRI BHAGWAN	Daratra p
35	BABHULKAR RASIKA PRAKASH	Basilha
36	DISHWARE HARSHALI DURGADAS	Dharsali.
37	GADHAVE TRUPTI BHAUSAHEB	handi Sha
38	SAWANT POOJA NANA	Vamant Ropy
39	YALSANGI ARPITA VITTHAL	Julita
40	SABALE SONAL DATTATRAYA	Olables
41	SALGAR POOJA BHARAT	Vall Deegle
42	SONAWANESAKSHI RAJENDRA	2 Conquel
43	SURWASE ONKAR VISHNU	sure
44	SHEGOKAR NEHA PRABHAKAR	Sulvice.
45	SHINDE DAMINI PRADEEP	Town.
46	SONAWANE RUTUJA SATISH	Dan.
47	WAGHMARE SHIVSHANKAR RAMRAO	Moshing ally
48	LATEY SAKSHI REMESH	( Company -
49	MADANE TANVI SUNIL	tormilla
50	MAINKAR KARISHMA VIJAY	Mide
51	CHINDARKAR SHRAVANI BALKRISHNA	Churelvesho
52	DARVESH DARSHAN SHIVAJI	Dowshan & hin
53	DHONGADE SHRUTIKA YESHWANT	Shruting
54	AUNDHAKAR KEEYYA NITIN	Regularistin

Dr. A. R. Kumbhar Course Co-ordinator

P. D. Chaudhari Principal





### **Curriculum of Communication Skills for Pharmacists**



#### Progressive Education Society's

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#### 2023-24

Name of Course: Communication Skills for Pharmacists

Course Code: NA

Date: 05/12/2023-13/12/2023 Course Duration: 35 hrs

#### Syllabus

#### Module 1: Interpersonal Communication for Pharmacists

Study the importance of communication, Skills for professionalism in communication, Interpersonal relationship theories, Collaboration in healthcare, Interprofessional communication, How to build trust in relationships, Basics of pharmacist-patient relationships How to be an empathic communicator.

#### **Module 2: Influences on Interpersonal Communication**

Examine the importance of ethics and cultural competency in communication, The role culture plays in nonverbal communication

How communication is impacted by influences on emotional expression.

#### Module 3: Types & Components of Communication for Pharmacists

Review types of communication,
Theories and techniques of persuasive communication,
The concept of immediacy in communication,
The five stages of change model
Strategies for gaining compliance and managing resistance.









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#### Module 4: Conflict Management for Pharmacists

Examine styles and strategies of conflict management, Behaviour associated with assertive communication skills, Verbal aggressiveness vs. Argumentativeness Ways that different cultures respond to conflict.

#### Module 5: Written Communication for Pharmacists

Learn about written communication in business,
How to determine the purpose of a written message,
Ways to adapt the message by analyzing the audience,
How to interpret the voice and tone of the message,
Ways to proofread the message
The importance of using non discriminatory language in business communication.

Dr. A. R. Kumbhar Course Co-ordinator College of Amacy

Dr. P. D. Chauthari Principal





## **Summary of Communication Skills for Pharmacists**



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Prof. Dr. Gajanan R. Ekbote M.S. M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Communication Skills for Pharmacists

Date: 05/12/2023 - 13/12/2023

Course Code: NA

Course Duration: 35 hrs

Summary Report

Type of Program	Certificate Course on Communication Skills for Pharmacists
Period	5 <sup>th</sup> December 2023 – 13 <sup>th</sup> December 2023 (35 hrs)
Brief Report	A certificate course in Communication Skills for Pharmacists was conducted at the institute in Collaboration with Elite institute of Pharma skills, Pune. The course was held between 5th December 2023 – 13th December 2023 (35 hrs). The course covered varied topics like in Module I Focuses on the importance of communication, professionalism, interpersonal relationship theories, and collaboration in healthcare. Module II Explores ethics and cultural competency, the role of culture in nonverbal communication, and how emotional expression influences communication. Module III and IV Covers types of communication, persuasive techniques Examines conflict management styles, assertive communication, differences between verbal aggressiveness and argumentativeness, and cultural responses to conflict Module V Highlights effective business writing, audience analysis, voice and tone interpretation, proofreading techniques, and the use of non-discriminatory language. 54 students at the institute enrolled for this course. The chief course conductors were Elite institute of Pharma skills.  Overall, the Communication Skills for Pharmacists course equips pharmacists with essential communication skills to excel in patient care, collaborate effectively, manage conflicts, and deliver professional written communication. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of PharmD and well supported by the administrative and non—teaching staff.
POs attained	PO1 –PO11

Dr. A. R. Kumbhar Course Co-ordinator

Principal





#### **Attendance of Communication Skills for Pharmacists**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Communication Skills for Pharmacists

Course Code: NA

Date: 05/12/2023-13/12/2023 Course Duration: 35 hrs

#### Attendance

Sr.	Name of Students	05/12/23	06/12/23	07/12/23	08/12/23	09/12/23	11/12/23	12/12/23	13/12/23
1	WAN KHEDE ARADHYA ANKUSH	P	P	P	A	P	P	P	P
2	WARTALE VAISHNAVI DATTA	P	A	P	P	P	P	P	P
3	JADA R TRUPTI ASHOK	P	P	P	P	A	P	P	P
4	JADH AV ANUSHKA	P	P	P	P	P	P	A	P
5	JADHAV MANIK SOMDEV	P	P	A	P	P	P	P	P
6	JADHAV PRACHI EKNATH	A	P	P	P	P	P	P	P
7	SHINDE DNYANESHWAR JAGA NNATH	P	A	P	P	A	P	P	A
8	SHINDE TEJAS ZUMBARRAO	P	P	P	P	P	A	P	P
9	TAUR DIPAK DADASAHEB	P	P	P	A	P	P	P	P
10	WAGHAMARE DHANASHRI BHAGVAN	P	P	A	P	P	P	P	P
11	WATPALWAD SACHIN SHANKAR	P	A	P	P	A	P	P	P
12	CHAUKATE PRERANA ADINATH	P	P	P	P	P	A	P	P
13	CHAVAN ARATI SANTOSH	P	P	P	P	A	P	P	A
14	CHORGHADE VIJAY NAMDEV	P	P	P	Р	P	P	A	P
1	VARAT TUSHAR RAJABHAU	P	P	A	P	P	P	P	P
16	WAKUDE SHRIKRUSHNA SANTOSH	P	P	P	P	P	P	P	P
17	WANKHADE YASH PRAMOD	ρ	A	P	P	P	P	P	P
18	WANKHEDE KHUSHI KAILAS	P	P	P	A	P	P	P	P
19	SAMBARE DATTATRAY SHRIKRUSHNA	A	P	P	P	P	P	P	A
20	SAPKAL TUSHAR SHRIMANT	P	P	P	P	P	A	P	P
21	SAWANT GANESH RAGHUNATH	A	P	P	P	P	P	P	P
22	SAWANT OMKAR RAVINDRA	P	P	P	P	P	P	A	P
23	BHOI HEMANT VIJAY	P	P	P	P	A	P	P	P
24	BORA SANKET RAJENDRA	P	P	P	A	P	P	P	P
25	JADHAV KISHORI NANDKUMAR	P	A	P	P	P	P	P	P
26	MORKHADE SHIVANI	A	P	P	P	P	P	P	P
27	SALAME VEDIKA NARENDRASINGH	P	P	A	P S	ollege	P	P	P
28	SALUNKE NIKITA SATYAWAN	P	P	P	A O	P	P	P	P
29	SALUNKHE RUPALI BHAGVAN	P	P	P	P	P	P	P	P
30	SARGAR LALIT RAJARAM	P	P	P	P	P	P	P	P







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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Students	05/12/23	06/12/23	07/12/23	08/12/23	09/12/23	11/12/23	12/12/23	13/12/23
31	BORU DE SNEHAL TUKARAM	D							
		1	P	A	P	P	P	D	P
32	DEUL KAR ANUSHRI ASHOK	P	A	P	A	P	P	P	P
33	INGLE SAMRUDDHI GANESH	P	P	P	A	P	P	P	P
34	JAGD ALE GAYATRI BHAGWAN	P	P	P	P	P	P	P	P
5	BABH ULKAR RASIKA PRAKASH	A	P	P	P	A	P	P	P
36	DISHWARE HARSHALI DURGADAS	P	P	P	P	P	P	P	P
37	GADHAVE TRUPTI BHAUSAHEB	P	P	P	P	P	P	A	P
38	SAWANT POOJA NANA	P	P	P	P	P	P	D	D
39	YALSANGI ARPITA VITTHAL	P	A	P	P	P	P	D	0
40	SABALE SONAL DATTATRAYA	A	P	P	P	D	P	P	o
41	SALGAR POOJA BHARAT	P	P	P	D	D	P	P	P
42	SONA WANESAKSHI RAJENDRA	P	P	D	A	P	P	P	D
43	SURWASE ONKAR VISHNU	P	P	P	D	P	D	P	0
44	SHEGOKAR NEHA PRABHAKAR	P	D	D	D	P	P	P	5
45	SHINDE DAMINI PRADEEP	P	P	P	P	P	P	P	P
46	SONAWANE RUTUJA SATISH	P	P	P	D	P	P	P	P
47	WAGHMARE SHIVSHANKAR RAMRAO	P	P	P	P	P	P	P	P
48	LATEY SAKSHI REMESH	P	P	P	P	A	P	P	P
49	MADANE TANVI SUNIL	Р	P	P	P	P	P	P	P
50	MAINKAR KARISHMA VIJAY	P	A	P	P	P	P	P	P
5	CHINDARKAR SHRAVANI BALKRISHNA	P	P	P	A	P	P	P	P
52	DARVESH DARSHAN SHIVAJI	P	P	P	P	Р	P	A	P
53	DHONGADE SHRUTIKA YESHWANT	P	P	P	P	P	P	P	P
54	AUNDHAKAR KEEYYA NITIN	Р	P	P	P	P	P	P	P

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal

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#### **Assessment of Communication Skills for Pharmacists**



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Prof. Dr. <sup>P.</sup> D. Chaudhari M.Pharm., Ph.D. Principal

2023-24

Name of Course: Communication Skills for Pharmacists Course Code: NA

Date: 05/12/2023-13/12/2023 Course Duration: 35 hrs

#### Assessment

Sr. No	Name of Student	Discussion 15 Marks	Mock Interview 15 Marks	Total 30 Marks
1	WANKHEDE ARADHYA ANKUSH	13	13	26
2	WARTALE VAISHNAVI DATTA	12	10	22
3	JADAR TRUPTI ASHOK	10	12	22
4	JADHAV ANUSHKA	13	08	21
5	JADHAV MANIK SOMDEV	13	09	22
6	JADHAV PRACHI EKNATH	10	10	20
7	SHINDE DNYANESHWAR JAGANNATH	12	09	21
8	SHINDE TEJAS ZUMBARRAO	10	12	22
9	TAUR DIPAK DADASAHEB	13	08	21
10	WAGHAMARE DHANASHRI BHAGVAN	09	09	18
11	WATPALWAD SACHIN SHANKAR	12	10	22
12	CHAUKATE PRERANA ADINATH	08	09	17
13	CHAVAN ARATI SANTOSH	10	10	20
14	CHORGHADE VIJAY NAMDEV	08	09	17
15	VARAT TUSHAR RAJABHAU	10	10	20
16	WAKUDE SHRIKRUSHNA SANTOSH	13	13	26
17	WANKHADE YASH PRAMOD	12	09	21
18	WANKHEDE KHUSHI KAILAS	10	12	22
19	SAMBARE DATTATRAY SHRIKRUSHNA	13	08	21
20	SAPKAL TUSHAR SHRIMANT	13	09	22
21	SAWANT GANESH RAGHUNATH	10	10	20
22	SAWANT OMKAR RAVINDRA	10	12	22
23	BHOI HEMANT VIJAY	08	10	18
24	BORA SANKET RAJENDRA	09	11	20
25	JADHAV KISHORI NANDKUMAR	13	13	26
26	MORKHADE SHIVANI	12	10	22
27	SALAME VEDIKA NARENDRASINGH	08	10	18
28	SALUNKE NIKITA SATYAWAN	09	ii	20
29	SALUNKHE RUPALI BHAGVAN	13 Nege o	13	26
30	SARGAR LALIT RAJARAM	19	08	19







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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

4

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Discussion 10 Marks	Interview 20 Marks	Total 30 Marks	
31	BORUDE SNEHAL TUKARAM	08	10	18	
32	DEULKAR ANUSHRI ASHOK	09	11.	20	
33	INGLE SAMRUDDHI GANESH	12	09	21	
34	JAGDALE GAYATRI BHAGWAN	13	13	26	
35	BABHULKAR RASIKA PRAKASH	11	08	19	
36	DISHWARE HARSHALI DURGADAS	13	13	26	
37	GADHAVE TRUPTI BHAUSAHEB	12	10	22	
38	SAWANT POOJA NANA	08	10	18	
39	YALSANGI ARPITA VITTHAL	09	11	20	
40	SABALE SONAL DATTATRAYA	12	09	21	
41	SALGAR POOJA BHARAT	10	12	22	
42	SONAWANESAKSHI RAJENDRA	13	08	21	
43	SURWASE ONKAR VISHNU	13	09	22	
44	SHEGOKAR NEHA PRABHAKAR	10	10	20	
45	SHINDE DAMINI PRADEEP	10	12	22	
46	SONAWANE RUTUJA SATISH	13	13	26	
47	WAGHMARE SHIVSHANKAR RAMRAO	12	10	22	
48	LATEY SAKSHI REMESH	08	10	18	
49	MADANE TANVI SUNIL	09	11	20	
50	MAINKAR KARISHMA VIJAY	12	09	21	
51	CHINDARKAR SHRAVANI BALKRISHNA	10	12	22	
52	DARVESH DARSHAN SHIVAJI	13	08	21	
53	DHONGADE SHRUTIKA YESHWANT	13	08	21	
54	AUNDHAKAR KEEYYA NITIN	13	09	22	

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudh Principal

Page 2 of 2





#### **Certificate of Communication Skills for Pharmacists**



# CERTIFICATE



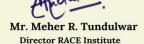
OF ACHIEVEMENT

THIS CERTIFICATE IS PRESENTED TO

## JADAR TRUPTI A.

for Successfully completing the certificate course "Communication Skills for Pharmacists" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 05/12/2023 to 13/12/2023. His/Her Participation is highly appreciated.





Dr. P. D. Chaudhari

Dr. P. D. Chaudhari
Principal



# CERTIFICATE



OF ACHIEVEMENT

THIS CERTIFICATE IS PRESENTED TO

## WARTALE VAISHNAVI D.

for Successfully completing the certificate course "Communication Skills for Pharmacists" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 05/12/2023 to 13/12/2023. His/Her Participation is highly appreciated.



Mr. Meher R. Tundulwar
Director RACE Institute

Dr. P. D. Chaudhari Principal







## CERTIFICATE



OF ACHIEVEMENT

THIS CERTIFICATE IS PRESENTED TO

## JADHAV MANIK S.

for Successfully completing the certificate course **"Communication Skills for Pharmacists"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 05/12/2023 to 13/12/2023. His/Her Participation is highly appreciated.





Dr. P. D. Chaudhari
Principal



## CERTIFICATE



OF ACHIEVEMENT

THIS CERTIFICATE IS PRESENTED TO

## JADHAV A.

for Successfully completing the certificate course "Communication Skills for Pharmacists" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 05/12/2023 to 13/12/2023. His/Her Participation is highly appreciated.

Dr. A. R. Kumbhar Co-ordinator

Mr. Meher R. Tundulwar
Director RACE Institute

Dr. P. D. Chaudhari Principal





# **Brochure of Medical Writing with Artificial Intelligence**



# PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI-44



# MODERN COLLEGE OF PHARMACY, NIGDI

IN COLLABORATION WITH RACE ACADEMY

Certificate Course On

# MEDICAL WRITING WITH ARTIFICIAL INTELLIGENCE

19/12/2023 - 28/12/2023





modernpharmacynigdi















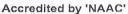


# List of student of Medical Writing with Artificial Intelligence



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Prof. Dr.-P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: Medical Writing with Artificial Intelligence Date: 19/12/2023-28/12/2023 Course Code: NA Course Duration: 42 hrs

#### List of Students

Sr. No	Name of Student	Sign
1	RATHOD KAJAL JITENDRA	tajal
2	RAUT ATHARVA NANDKISHOR	Pau.
3	ROHIDA YASHIKA	Yadila-
4	SABNE KUNAL SURESH	tunal.
5	SHARMA HARISH DWARKAPRASAD	Harrish
6	SHEIKH ARSHIYA NAVED	Assigal
7	BADHALE UNMESHA CHANDRAKANT	Bur.
8	BAGALKOT PRITI MOHAN	Haur
9	BARGE KUNAL GAJANAN	stural
10	BARHATE JAY JITENDRA	Stay
11	BHAGWAT DNYANOBA BOCHARE	lent
12	BHALE GEETANJALI NARAYAN	Greetanible
13	BHANDARE AKANKSHA ABHIJIT	Bruting
14	BHOSALE SANKET DATTATRAY	S-Blandhu
15	BHUMKAR PANKAJ VIJAYKUMAR	Fantay.
16	BORASTE ANUSHKA DILIP	Boraste
17	CHAUDHARI VIDYA DILIP	YChardhari
18	CHAVAN CHINMAYEE YUVRAJ	Marah
19	CHAVAN PRATIK ARUN	Chaever
20	KAMBLE SIDDHI SIDDHARTH	Sidohi
21	KAMTHE HARSHDA BHOLESHANKAR	Hamper
22	KARANDE GAURI PRADIP	Gairn
23	PISAL PRANAV SHASHIKANT	PPsat
24	PITALE GAURANG RAVINDRA	Hullion
25	RATHOD PRIYANKA RAMESH	(PR)
26	RAUT PRAJAKTA NAGNATH	Haguede
27	SABLE ASHISH DAGADU	Ashish
28	POLE RUTUJA DASHRATH	colege fearel bin
29	POTDAR CHINMAYEE RAHUL	Chique
30	RANE MANISH GAJANAN	Mane







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Sr. No	Name of Student	Sign
31	CHENDKE VAISHNAVEE ANAND	- Giranawi
32	CHOUGULE RAJWARDHAN DIGAMBAR	Play?
33	DAHIPHALE ADITYA ADINATH	Jahr
34	DALAVI SNEHA SANTOSH	Juin
35	DALVI SAKSHI AMAR	Sand
36	DATE SNEHAL KHANDU	Jacha Pade
37	DATIR SARTHAK DEEPAK	July .
38	LOKHANDE VAISHNAVI SUNIL	Vachnan.
39	MAGADE SRUSHTI DINESH	Caro
40	MALI CHAITANYA MADHUKAR	Chaedaneyes
41	MASRAM ISHWARI SHALIKRAM	Eshevaei-
42	MOHITE SHREYAS RAGHUNATH	Chreyas-
43	MORE VAISHNAVI DADARAO	Vaishnawl.
44	NAGLE ADITI SADANAND	- Nait/Vagale
45	NAGRE SAYALI MADHUKAR	aut
46	RAJGOR JAY DASHARATH	Jay.
47	RAJURWAR ANJALI SANTOSH	Anjali-S-R
48	RUKARE SNEHA BASWRAJ	Robe
49	SAINI AJIT VISHWANATH	ASIL.
50	SARODE VISHAL SHRIPATI	- Samor
51	LOKHANDE KHANDU ASHOK	Launder
52	MAHAJAN MOHAK	Drahale

Dr. A. R. Kumbhar Course Co-ordinator College of A

P. D. Chaudhari Principal

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# **Curriculum of Medical Writing with Artificial Intelligence**



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: Medical Writing with Artificial Intelligence Date: 19/12/2023-28/12/2023 Course Code: NA Course Duration: 42 hrs

#### Syllabus

#### **Module 1: Introduction Medical Writing**

What is medical writing? How much can I make? What does the day-to-day schedule of a writer look like? What types of work are available? Where do medical writers work?

#### Module 2: Role of Medical Writer, Process Workflow and Training

Role of a Medical writer
Medical writing - Process workflow
How to write a Scientific document
Training and resources for Medical writers
Medical writing in Social media
Medical writing in Freelance marke

#### Module 3: Finding the work

Maximizing the use of job boards
Maximizing your current clinical role
Finding writing work in the life sciences fields
Using LinkedIn
Using company career and contributor pages
Al Course SNEAK PEEK: Using Al Chat Writers to Find Work
Master the Job Search and Land Your Dream Job
SNEAK PEEK: Finding Jobs With Professional Societies
Finding Jobs With Professional Societies - for non-US Medical Writers

#### Module 4: Examples of Medical writing documents

PBRER - Periodic Benefit-Risk Evaluation Report CSR - Clinical Study Report, Clinical trial Protocol IB - Investigator's Brochure

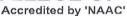








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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### Module 5: Getting the Work

Pitching to clients The Open Notebook Building and presenting your portfolio How do I get experience if I don't have experience?

#### Module 6: Using the Tool

Google Docs, Google Slides and Microsoft Power point Finding and Using Images

#### Module 5: Writing the work

Working with editors Writing for the web Web Writing Practice Assignment Search Engine Optimization (SEO) Writing CE/CME needs assessments Creating CE presentations Writing CE monographs Medical, Legal, and Regulatory Review Annotations Medical editing Finishing References What about AI Writers? Write web articles with Chat Writers AI Writing Demonstration and Webinar

#### Module 6: The Business of writing

Legal considerations Taxes and financial considerations

Course Co-ordinator



Page 2 of 2





# **Summary of Medical Writing with Artificial Intelligence**



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Prof. Pr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: Medical Writing with Artificial Intelligence

Date: 19/12/23 - 28/12/23

Course Code: NA

Course Duration: 42 hrs

#### **Summary Report**

Type of Program	Certificate Course on Medical Writing with Artificial Intelligence				
Period	19 <sup>th</sup> December 2023 – 28 <sup>th</sup> December 2023 (42 hrs)				
Brief Report  A certificate course in Medical Writing with Artificial Intelligence was cond at the institute in Collaboration with Elite institute of Pharma skills, Pun course was held between 19th December 2023 – 28th December 2023 (42 hrs course introduces the fundamentals of medical writing and integrates art intelligence tools to enhance productivity. It begins with an overview of me writing as a career, covering roles, income potential, daily routines, and work opportunities. Participants learn about workflows, scientific document preparand leveraging social media and freelancing platforms. Learners are introduce essential tools like Google Docs and presentation software, alongside skills in writing, SEO, CE/CME content creation, and medical editing. The course addresses business aspects, including legal and financial considerations powered writing demonstrations and assignments provide hands-on exper preparing participants to excel in medical writing with cutting-edge technolos students at the institute enrolled for this course. The chief course conductors Elite institute of Pharma skills.					
	Overall, Medical Writing with Artificial Intelligence Course provided participants with strategies for finding work through job boards, LinkedIn, and professional societies, with a focus on using AI-driven tools for job searching and content creation. Practical modules cover the creation of key medical documents such as PBRERs, CSRs, and IBs, along with portfolio building, pitching to clients, and gaining writing experience. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of PharmD and well supported by the administrative and non—teaching staff.				
POs attained	PO1 –PO11				

Dr. A. R. Kumbhar Course Co-ordinator

College of the second s

Dr. P. D. Chaudhari Principal





# **Attendance of Medical Writing with Artificial Intelligence**

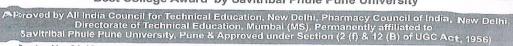


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Prof. Dr. Gajanan R. Ekbote M.S. M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2022-23

Name of Course: Medical Writing with Artificial Intelligence Date: 19/12/2023-28/12/2023 Course Code: NA Course Duration: 42 hrs

#### Attendance

No	Name of Students	19/12/23	20/12/23	21/12/23	23/12/23	24/12/23	25/12/23	27/12/23	28/12/23
1	RATHOD KAJAL JITENDRA	P	A	P	P	P	A	P	P
2	RAUT ATHARVA NAN DKISHOR	P	P	A	P	p	P	A	P
3	ROHIDA YASHIKA	P	P	P	A	P	P	P	A
4	SABNE KUNAL SURESH	P	P	P	P	A	P	A	P
5	SHARMA HARISH DWARKAPRASAD	P	A	P	P	P	A	P	P
6	SHEIKH ARSHIYA NAVED	A	P	P	P	P	P	A	P
7	BADHALE UNMESHA CHANDRAKANT	P	P	A	P	10	P	P	A
8	BAGALKOT PRITI MOHAN	P	P	P	A	10	P	P	A
. )	BARGE KUNAL GAJANAN	P	P	P	P	A	P	P	P
10	BARHATE JAY JITENDRA	P	P	A	P	P	P	A	P
11	BHAGWAT DNYANOBA BOCHARE	P	P	P	A	P	P	A	P
12	BHALE GEETANJALI NARAYAN	P	P	P	P	A	P	A	P
13	BHANDARE AKANKSHA ABHIJIT	A	P	p	P	P	A	10	A
14	BHOSALE SANKET DATTATRAY	P	P	p	A	P	P	P	P
15	BHUMKAR PANKAJ VIJAYKUMAR	P	P	D	P	A	P	A	P
16	BORASTE ANUSHKA DILIP	b	P	P	A	ollege of S	P	P	A
17	CHAUDHARI VIDYA DILIP	P	P	A	p W	(P)	A	p	P







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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Students	19/12/23	20/12/23	21/12/23	23/12/23	24/12/23	25/12/23	27/12/23	28/12/23
18	CHAVAN CHINMAYEE	P	P	A	P	P	A	P	P
19	CHAVAN PRATIK ARUN	P	P	P	Δ	P	P	A	P
$\bigcirc$	KAMBLE SIDDHI SIDDHARTH	P	A	P	Δ	P	P	P	12
21	KAMTHE HARSHDA BHOLESHANKAR	P	P	A	P	A	P	P	P
22	KARANDE GAURI PRADIP	A	P	P	P	P	A	P	P
23	PISAL PRANAV SHASHIKANT	P	Δ	P	A	P	P	6	P
24	PITALE GAURANG RAVINDRA	P	P	A	P	P	P	A	P
25	RATHOD PRIYANKA RAMESH	P	P	P	P	A	P	P	Δ
26	RAUT PRAJAKTA NAGNATH	P	P	P	2	A	P	12	P
27	SABLE ASHISH DAGADU	P	A	A	P	P	P	10	72
28	POLE RUTUJA DASHRATH	P	P	P	A	A	P	P	6
29	POTDAR CHINMAYEE RAHUL	P	P	P	A	P	P	P	A
30	RANE MANISH GAJANAN	A	P	P	P	P	19	A	P
31	CHENDKE VAISHNAVEE ANAND	P	A	P	A	P	P	P	12
32	CHOUGULE RAJWARDHAN DIGAMBAR	P	A	P	P	P	A	P	P
33	DAHIPHALE ADITYA ADINATH	P	P	A	P	9	P	P	A
34	DALAVI SNEHA SANTOSH	P	P	P	A	P	A	P	P
35	DALVI SAKSHI AMAR	P	P	A	P	A	P	P	P
36	DATE SNEHAL KHANDU	A	P	P	SE College o	P	P	P	A

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37	DAT IR SARTHAK DEE PAK	P	A	P	P	P	A	P	P
38	LOK HANDE VAISHNAVI SUNIL	P	P	P	P	A	P	P	P
$\bigcirc$	MAGADE SRUSHTI DIN ESH	Р	p	A	P	A	P	P	P
40	MALI CHAITANYA MADHUKAR	A	P	p	P	p	B	P	P
41	MASRAM ISHWARI SHALIKRAM	P	P	P	A	P	P	P	P
42	MOHITE SHREYAS RAGHUNATH	þ	A	P	P	Р	A	P	P
43	MORE VAISHNAVI DADARAO	P	P	A	þ	P	P	A	P
44	NAGLE ADITI SADANAND	Р	P	P	P	A	P	P	P
45	NAGRE SAYALI MADHUKAR	A	P	Р	A	p	P	P	P
46	RAJGOR JAY DASHARATH	P	P	A	P	P	A	P	ħ
۵7	RAJURWAR ANJALI SANTOSH	P	P	P	P	A	P	A	P
48	RUKARE SNEHA BASWRAJ	P	A	p	Р	p	A	P	P
49	SAINI AJIT VISHWANATH	P	P	þ	A	P	P	P	P
50	SARODE VISHAL SHRIPATI	Р	P	A	b	P	A	P	P
51	LOKHANDE KHANDU ASHOK	p	P	p	A	P	þ	p	P
52	MAHAJAN MOHAK	Р	P	A	P	P	P	P	P

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal

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# **Assessment of Medical Writing with Artificial Intelligence**



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: Medical Writing with Artificial Intelligence Date: 19/12/2023-28/12/2023 Course Code: NA Course Duration: 42 hrs

#### Assessment

Sr. No	Name of Student	Assessment 30 Marks
1	RATHOD KAJAL JITENDRA	22
2	RAUT ATHARVA NANDKISHOR	24
3	ROHIDA YASHIKA	23
4	SABNE KUNAL SURESH	21
5	SHARMA HARISH DWARKAPRASAD	20
6	SHEIKH ARSHIYA NAVED	25
7	BADHALE UNMESHA CHANDRAKANT	24
8	BAGALKOT PRITI MOHAN	25
9	BARGE KUNAL GAJANAN	24
10	BARHATE JAY JITENDRA	24
11	BHAGWAT DNYANOBA BOCHARE	26
12	BHALE GEETANJALI NARAYAN	24
13	BHANDARE AKANKSHA ABHIJIT	25
14	BHOSALE SANKET DATTATRAY	24
15	BHUMKAR PANKAJ VIJAYKUMAR	24
16	BORASTE ANUSHKA DILIP	25
17	CHAUDHARI VIDYA DILIP	24
18	CHAVAN CHINMAYEE YUVRAJ	25
19	CHAVAN PRATIK ARUN	26
20	KAMBLE SIDDHI SIDDHARTH	25
21	KAMTHE HARSHDA BHOLESHANKAR	25
22	KARANDE GAURI PRADIP	24
23	PISAL PRANAV SHASHIKANT	25
24	PITALE GAURANG RAVINDRA	24
25	RATHOD PRIYANKA RAMESH	26









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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Assessment 30 Marks
26	RAUT PRAJAKTA NAGNATH	24
27	SABLE ASHISH DAGADU	26
28	POLE RUTUJA DASHRATH	24
29	POTDAR CHINMAYEE RAHUL	25
30	RANE MANISH GAJANAN	24
31	CHENDKE VAISHNAVEE ANAND	23
32	CHOUGULE RAJWARDHAN DIGAMBAR	21
33	DAHIPHALE ADITYA ADINATH	20
34	DALAVI SNEHA SANTOSH	25
35	DALVI SAKSHI AMAR	25
36	DATE SNEHAL KHANDU	22
37	DATIR SARTHAK DEEPAK	24
38	LOKHANDE VAISHNAVI SUNIL	20
39	MAGADE SRUSHTI DINESH	25
40	MALI CHAITANYA MADHUKAR	22
41	MASRAM ISHWARI SHALIKRAM	24
42	MOHITE SHREYAS RAGHUNATH	23
43	MORE VAISHNAVI DADARAO	21
44	NAGLE ADITI SADANAND	20
45	NAGRE SAYALI MADHUKAR	25
46	RAJGOR JAY DASHARATH	24
47	RAJURWAR ANJALI SANTOSH	25
48	RUKARE SNEHA BASWRAJ	24
49	SAINI AJIT VISHWANATH	24
50	SARODE VISHAL SHRIPATI	26
51	LOKHANDE KHANDU ASHOK	24
52	MAHAJAN MOHAK	25

Dr. A. R. Kumbhar Course Co-ordinator

Dr. P. D. Chaudhari Principal

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# **Certificate of Medical Writing with Artificial Intelligence**



# **CERTIFICATE**



#### OF ACHIEVEMENT

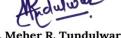
THIS CERTIFICATE IS PRESEND TO:

## RAUT ATHARVA N.

for Successfully completing the certificate course "Medical Writing for Healthcare Professionals" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 19/12/2023 to 28/12/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



Mr. Meher R. Tundulwar **Director RACE Institute** 



Dr. P. D. Chaudhari **Principal** 



# **CERTIFICATE**



#### OF ACHIEVEMENT

THIS CERTIFICATE IS PRESEND TO:

# **ROHIDA YASHIKA**

for Successfully completing the certificate course "Medical Writing for Healthcare Professionals" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 19/12/2023 to 28/12/2023. His/Her Participation is highly appreciated.



Co-ordinator

Mr. Meher R. Tundulwar **Director RACE Institute** 

Dr. P. D. Chaudhari **Principal** 

Progressive Education Society's Modern College of Pharmacy, Nigdi, Pune 411044





# **Brochure of The Complete Healthcare Artificial Intelligence Course**



# PES'S MODERN COLLEGE OF PHARMACY YAMUNANAGAR, NIGDI- 44



# MODERN COLLEGE OF PHARMACY, NIGDI IN COLLABORATION WITH

RACE ACADEMY

Certificate Course On

# THE COMPLETE HEALTHCARE **ARTIFICIAL INTELLLIGENCE COURCE**

18/01/2024 - 25/01/2024





modernpharmacynigdi









mcopnigdi







# List of student of The Complete Healthcare Artificial Intelligence Course



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S Chairman, Business Counci P.E.Society, Pune

2023-24

Name of Course: The Complete Healthcare Artificial Intelligence Course

Date: 18/01/2024-25/01/2024

Course Code: NA Course Duration: 40 hrs

#### **List of Students**

Sr. No	Name of Student	Sign		
1	JAGTAP SHWETA RAJENDRA	Jagtap.		
2	JAMBHALE VAISHNAVI MOHAN	Valshnauch		
3	KSHIRSAGAR TUSHAR HARIBHAU	Krushar		
4	KAMBLE ANURADHA KAKA	ALamb u		
5	HATEKAR JYOTI DADASAHEB	J40H H .		
6	HIREMATH NIRAJ SHARANAYYA	Miremat		
7	ISHTE KIRTI DATTATRAY	KirH		
8	JADHAV PRATIKSHA VILAS	JVIIas		
9	SHINGADE VAISHNAVI MACHINDRA	Svaishnavi		
10	SHIRKE RIYA SHIVAJI	Bhirke		
11	SONAWANE SHREYA TUKARAM	shreya		
12	SURVASE GANESH PANDURANG	Gaurvase		
13	TANDALE HARSHADA SUNIL	H. Tandale		
14	PAWAR PRATIKSHA MAHADEV	Pratikoha		
15	TAPSALE AARYAN ARUN	TARMAN		
16	MULLA TAUFIK USMAN	Maufik		
17	NAGE KALYAN BABASAHEB	BNage		
18	NAMADE ATHARV AJAY	Tannay		
19	JAGDALE TANMAY BHARAT	Queha		
20	DANGLE NEHA NAVNATH	Addition 12 Neha		
21	DESAI ADITI ANIL	AdiH D.		
22	DESHMUKH GAURI VINOD	G. Deshmuch		
23	DHAMAL SHRUSTI BALASAHEB	Sphamal		
24	VIBHUTE SOMESH RAMRAO	Someth		
25	WAKTE TEJAS VIJAY	Tetas		
26	KUTE SAKSHI DINKAR	sakshi kute		
27	BANERJEE SHREYASI	Bhreyasi		
28	CHAVAN DEEKSHA PRAKASH	Queksha		
29	DERE SHRUTI HANUMANT	shruti Dere		
30	BOTRE SHIVAI SUNIL	Bshivani,		







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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Sign
31	BURUKALE VAISHNAVI SANTOSH	Quykhale
32	CHAVAN SHREYAN YOGESH	Xun
33	SOLANKE SAGAR SANDIPAN	al Max
34	MATHE ADITYA AJAY	Men
35	MOKASHI SHARVARI BABURAO	makashis
36	MULE PRASANNA GANESH	Parasanatino.
37	NAIKADE SIDDHI DATTATRAY	ghonning.
38	NALGE JANHAVI SIDDHIVINAYAK	Satishi
39	DONGARE SAKSHI LAXMAN	South .
40	GAVHANE SAYALI SANTOSH	Churchyli.
41	JADHAV VAISHALI SUBHASH	- Wahar
42	KAMBLE SHRUTI NILESH	12 muits.
43	KHAMKAR VAISHNAVI RAJENDRA	Phrutte
44	KAMBLE SAINATH PANDURANG	Rample
45	KARALE VAISHNAVI TARUN	Kaushnavi.
46	KARANDE SNEHAL RAMCHANDRA	Sichalt
47	KASHID PRATIKSHA PRADIP	Juntilin
48	KATE VAISHNAVI SHANKAR	cale.
49	BHOSALE PAYAL RAJESH	Dayal.
50	BOBADE SHIVAM DEEPAK	Barade.
51	CHAUDHARY MANDAR MAHENDRA	Mondos
52	CHAVAN PRASAD ANIL	- Chavaro.
53	CHOUDHARY KISHAN JAGDISH	Krenber.
54	CHOWKIDAR ADAVAITA MUKUNDRAO	Advaita
55	GOPNAR KESHAV RANJEETRAO	Royse.
56	GORE VIKAS AJINATII	Veore
57	GOSAVI DEEPALI SHRIKRUSHNA	· Organi.
58	GOYAKAR ATHARVA SIDDHESHWAR	Americe Cop.
59	JADHAV RUPESH RAMRAO	Rupella.
60	JADHAV SOHAM SANJAY	Sidhen

Dr. A. R. Kumbhar Course Co-ordinator



p. P. D. Chaudhari Principal

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# **Curriculum of The Complete Healthcare Artificial Intelligence Course**



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#### 2023-24

Name of Course: The Complete Healthcare Artificial Intelligence Course

Date: 18/01/2024-25/01/2024

Course Code: NA

Course Duration: 40 hrs

#### **Syllabus**

#### Module 1: Introduction

Introduction to AI in healthcare

Basic concept of machine learning

Basic of supervised learning, unsupervised and reinforcement learning

What is sklearn?

What is pandas

What is matplotlib?

What is standardization

#### Module 2: Implementation of Breast Cancer detection

What is breast cancer?

What is classification report?

What is logistic regression

What is confusion matrix

what is mplot3d

what is mpatches

what is train test split?

Implementation of breast cancer detection Part 1 Implementation of breast cancer detection Final Part

#### Module 3: Implementation of diabetes detection

What is diabetes

What is artificial neural network?

What is perceptron?

What does pre-processing mean?

How to handle missing values

What is seaborn?

Implementation of diabetes detection Part 1

Implementation of diabetes detection Part 2

Implementation of diabetes detection Part 3

Implementation of diabetes detection Part 4

Implementation of diabetes detection Part 5









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Implementation of diabetes detection Part 6 Implementation of diabetes detection final Part

#### Module 4: Implementation of DNA classification and Heart disease detection

Introduction to DNA sequences and classification

What is Decision Tree?

What is support vector machine?

What is Random Forest Classifier

What is Radial Basis Function

What is K-nearest Neighbors

What is AdaBoostClassifier

What is MLP Classifier?

Implementation of DNA classification Part 1&2

Implementation of DNA classification Final Part

What is Heart disease?

Implementation of Heart disease detection Part 1

Implementation of Heart Disease Final Part

#### Module 5: Discharge statuses detection for emergency department patients

What is ED (Emergency department ) patients?

What is discharge statuses for ED patients?

What is one-hot-encoding

Discharge statuses detection for ED patients implementation Part 1

Discharge statuses detection for ED patients implementation Part 2

Discharge statuses detection for ED patients implementation Part 3

Discharge statuses detection for ED patients implementation Part 4

Discharge statuses detection for ED patients implementation Part 5

Discharge statuses detection for ED patients implementation Part 6 Discharge statuses detection for ED patients implementation Part 7

#### Module 6: Introduction OLD Content

AI in Healthcare What is Neuron What is Deep Learning What is ANN What is keras



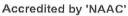
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Introduction to Pandas Part 1 Introduction to Pandas Part 2 Data Visualization with Pandas Data Preprocessing by Pandas How to install Anaconda Important terms in Neural Network

#### Module 7: Activatation function OLD Content

What is activation function

What is sigmoid function

What is tanh function

What is Rectified Linear Unit function

What is Leaky ReLU function

What is The Exponential Linear Unit Function

What is The Swish function

What is The softmax function

Time to code all the activation functions

#### Module 8: DNA Classification Project OLD Content

Introduction to DNA classifier

Importing library and data

Showing data

Generating a DNA sequence

Splitting the dataset into training test and test set

Scoring method and results

Summary of the project

#### Module 9: Heart disease classification process OLD Content

Important Parameters

Objective of this project

Importing library and data

Exploratory analysis

Handling missing data in Python

Data scaling

Data visualization

Splitting training set into test set and Evaluating the model



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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S Chairman, Business Counci P.E.Society, Pune

#### Module 10: Diagnosing CAD Project

Importing data and Analysing data
Fixing missing data
Splitting the dataset into training test and test set
Training Neural Network
A comparison of categorical and binary problem
Summary of the project

#### Module 10: Breast Cancer Detection Project OLD Content

Importing library and data and Preprocessing data
Data visualization
Understanding Machine Learning Algorithm
Training model
Make a Prediction
Summary of the project

#### Module 10: Predicting diabetes with multilayer Perceptrons Project OLD Content

Importing datas and libraries
Visualizing data
Handling missing values
Data standardization
Splitting the data into training, testing, and validation sets
Model building
Model compilation
Model training
Testing accuracy
Confusion matrix
ROC curve
Further improvement

#### Module 10: Medical Treatment Project OLD Content

Problem Analysis Importing library and data Analysing Data Preprocessing data Removing missing data

Summary of the project



Page 4 of 5







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Creating training, test and validation data

Visualizing data

Building a random model

Confusion, Precision and Recall Matrix

One-hot Encoding

Response Encoding- Theory

Response Encoding- Implementation Part 1

Response Encoding-Implementation Part 2

Response Encoding-Implementation Part 3

Evaluating variation column Part 1

Evaluating variation column Part 2

Evaluating text column Part 1

Evaluating text column Part 2

Data Preparation for machine learning model

Combine all 3 feature together

Naive Bayes-Implementation Part 1

Naive Bayes-Implementation Part 2

K Nearest Neighbour Classification Implementation

Logistic Regression Implementation

Logistic Regression Implementation without balancing data Part 1

Logistic Regression Implementation without balancing data Part 2

Linear Support Vector Machines

Fixing mistakes (Please watch)

RF with Response Coding Implementation Part 1

RF with Response Coding Implementation Part 2

Random Forest Classifier Implementation

Stacking model Implementation

Maximum voting Classifier

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal

Page 5 of 5





# **Summary of The Complete Healthcare Artificial Intelligence Course**



#### Progressive Education Society's

# MODERN COLLEGE OF PHARMACY

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Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: The Complete Healthcare Artificial Intelligence Course

Date: 18/01/24 - 25/01/24

Course Code: NA

Course Duration: 40 hrs

#### **Summary Report**

Type of Program	Summary Report  Certificate Course on The Complete Healthcare Artificial Intelligence
Period	18 <sup>th</sup> January 2024 – 25 <sup>th</sup> January 2024 (40 hrs)
Brief Report	A certificate course in The Complete Healthcare Artificial Intelligence Course was conducted at the institute in Collaboration with Elite institute of Pharma skills, Pune. The course was held between 18th January 2024 —25th January 2024 (40 hrs). This course comprehensively explores the application of AI in healthcare, starting with foundational concepts in AI, machine learning, and essential tools (e.g., sklearn, pandas, matplotlib). It progresses through practical implementations of disease detection and classification, including projects on breast cancer, diabetes, DNA sequences, heart disease, and discharge status prediction for emergency department patients. Advanced modules delve into activation functions, neural networks, and deep learning techniques, focusing on project-based learning for real-world healthcare problems. Topics such as data preprocessing, visualization, model building, and evaluation are emphasized. The course concludes with complex machine learning techniques like response encoding, ensemble models, and optimization strategies for improving predictive accuracy. 60 students at the institute enrolled for this course. The chief course conductors were Elite institute of Pharma skills.
	Overall, The Complete Healthcare Artificial Intelligence Course provided participants with a both theoretical knowledge and hands-on experience, enabling learners to develop AI models tailored to healthcare challenges. The course was Coordinated by Dr. A.R. Kumbhar Assistant Professor Department of PharmD and well supported by the administrative and non—teaching staff.
POs attained	PO1 -PO11

Dr. A. R. Kumbhar Course Co-ordinator

College of The Base

Dr. R.D. Chaudhari Principal





# **Attendance of The Complete Healthcare Artificial Intelligence Course**



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Prof. Dr.P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekboti M.S, M.N.A.M.S Chairman, Business Counci P.E.Society, Punt

2022-23

Name of Course: The Complete Healthcare Artificial Intelligence Course

Date: 18/01/2024-25/01/2024

Course Code: NA Course Duration: 40 hrs

Attendance

Sr. No	Name of Students	18/01/24	19/01/24	20/01/24	22/01/24	23/01/24	24/01/24	25/01/24
1	JAGTAP SHWETA RAJENDRA	P	P	A	P	P	P	P
2	JAMBHALE VAISHNAVI MOHAN	P	A	P	9	P	P	6
3	K SHIRSAGAR TUSHAR HARIBHAU	P	P	P	A	P	P	P
4	KAMBLE ANURADHA KAKA	A	P	P	P	P	A	P
5	HATEKAR JYOTI DADASAHEB	P	P	A	P	P	P	,b
6	HIREMATH NIRAJ SHARANAYYA	6	P	P	6	9	P	P
7	ISHTE KIRTI DATTATRAY	P	A	P	P	P	P	P
8	JADHAV PRATIKSHA VILAS	P	P	A	P	6,	P	P
9	SHINGADE VAISHNAVI MACHINDRA	A	P	P	P	P	P	P
10	SHIRKE RIYA SHIVAJI	P	P	A	P	P	P	P
11	SONAWANE SHREYA TUKARAM	P	P	A	P	9	P	9
12	SURVASE GANESH PANDURANG	P	A	P	P	P	P	P
13	TANDALE HARSHADA SUNIL	P	P	P	À	P	A	P
4	PAWAR PRATIKSHA MAHADEV	P	P	A-	P	A	P	P
15	TAPSALE AARYAN ARUN	P	P	A	P	P	P	A
16	MULLA TAUFIK USMAN	6	P	P	A	A	P	P
17	NAGE KALYAN BABASAHEB	P	P	A	P	P	P	P
18	NAMADE ATHARV AJAY	P	P	P	Q	A	P	P
19	JAGDALE TANMAY BHARAT	P	P	P	A	P	P	P
20	DANGLE NEHA NAVNATH	P	,b	P	P	9	A	P
21	DESAI ADITI ANIL	P	P	P	P	P	P	-A
22	DESHMUKH GAURI VINOD	P	P	P	A	P	P	\$
23	DHAMAL SHRUSTI BALASAHEB	P	P	P	P	P	P	A
24	VIBHUTE SOMESH RAMRAO	A	P	P	P	P	A	P
25	WAKTE TEJAS VIJAY	P	P	P	P	A	6	A









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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S Chairman, Business Counci P.E.Society, Pune

Sr. No	Name of Students	18/01/24	19/01/24	20/01/24	22/01/24	23/01/24	24/01/24	25/01/24
26	KUTE SAKSHI DINKAR	P	P	A	A	P	P	P
27	BANERJEE SHREYASI	P	P	P	A	þ	A	D
28	CHAVAN DEEKSHA PRAKASH	P	P	P	P	A	9	
29	DERE SHRUTI HANUMANT	P	P	A	P	D	P	A
30	BOTRE SHIVAI SUNIL	P	P	P	p	0	P	P
31	BURUKALE VAISHNAVI SANTOSH	P	Þ	A	P	P	A	P
32	CHAVAN SHREYAN YOGESH	A	D	?	A	p	P	1
33	SOLANKE SAGAR SANDIPAN	P	el el	A	P	P	1	D
34	MATHE ADITYA AJAY	A		D	P		A	
35	MOKASHI SHARVARI BABURAO	P		A	1	A	A	A
36	MULE PRASANNA GANESH	P	D	P	P		1	1
37	NAIKADE SIDDHI DATTATRAY	P	P	P	P	P	P	A
	NALGE JANHAVI					P	_ T	1
38	SIDDHIVINAYAK	P	P	P	P	A	P	P
39	DONGARE SAKSHI LAXMAN	A	9	P	P	P	P	P
40	GAVHANE SAYALI SANTOSH	P	P	P	P	D	A	A
41	JADHAV VAISHALI SUBHASH	P	P	P	P	P	P	A
42	KAMBLE SHRUTI NILESH	P	P	P	P	P	4	
)	KHAMKAR VAISHNAVI RAJENDRA	P	P	A	P	P	P	P
44	KAMBLE SAINATH PANDURANG	P	P	P	P	A	P	P
45	KARALE VAISHNAVI TARUN	A	P	P	P	p		9
46	KARANDE SNEHAL RAMCHANDRA	P	P	P	A	۲.	P	P
47	KASHID PRATIKSHA PRADIP	Α	P	P	P	1	4	P
48	KATE VAISHNAVI SHANKAR	A	P	P	P	0	1	-
49	BHOSALE PAYAL RAJESH	A	P	P	D	1	1	A
50	BOBADE SHIVAM DEEPAK	A	P	P	0	P		D



Page 2 of 3







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Prof. Dr.P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S. M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Students	18/01/24	19/01/24	20/01/24	22/01/24	23/01/24	24/01/24	25/01/24
-51	CHAUDHARY MANDAR MAHENDRA	A	中	P	8	A	P	P
-2	CHAVAN PRASAD ANIL	P	P	A	P	P	A	P
53	CHOUDHARY KISHAN JAGDISH	P	P	A	Á	P	P	P
54	CHOWKIDAR ADAVAITA MUKUNDRAO	P	P	P	P	A	P	A
55	GOPNAR KESHAV RANJEETRAO	A	P	P	A	P	P	P
56	GORE VIKAS AJINATH	P	A	P	P	P	A	P
57	GOSAVI DEEPALI SHRIKRUSHNA	P	P	P	1	P	P	A
58	GOYAKAR ATHARVA SIDDHESHWAR	P	P	A	P .	P	P	P
59	JADHAV RUPESH RAMRAO	P	A	P	P	A	P	P
60	JADHAV SOHAM SANJAY	P	P	P	P	P	P	-A

Dr. A. R. Kumbhar Course Co-ordinator



D. Chaudhari Principal

Page 3 of 3





# **Assessment of The Complete Healthcare Artificial Intelligence Course**



1)

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Prof. Dr.P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: The Complete Healthcare Artificial Intelligence Course

Date: 18/01/2024-25/01/2024

Course Code: NA

#### Assessment

Course Duration: 40 hrs

Sr. No	Name of Student	Interview 30 Marks
1	JAGTAP SHWETA RAJENDRA	22
2	JAMBHALE VAISHNAVI MOHAN	24
3	KSHIRSAGAR TUSHAR HARIBHAU	23
4	KAMBLE ANURADHA KAKA	21
5	HATEKAR JYOTI DADASAHEB	20
6	HIREMATH NIRAJ SHARANAYYA	25
7	ISHTE KIRTI DATTATRAY	24
8	JADHAV PRATIKSHA VILAS	25
9	SHINGADE VAISHNAVI MACHINDRA	24
10	SHIRKE RIYA SHIVAJI	24
11	SONAWANE SHREYA TUKARAM	24
12	SURVASE GANESH PANDURANG	25
13	TANDALE HARSHADA SUNIL	24
14	PAWAR PRATIKSHA MAHADEV	24
15	TAPSALE AARYAN ARUN	20
16	MULLA TAUFIK USMAN	20
17	NAGE KALYAN BABASAHEB	25
18	NAMADE ATHARV AJAY	24
19	JAGDALE TANMAY BHARAT	24
20	DANGLE NEHA NAVNATH	25
21	DESAI ADITI ANIL	24
22	DESHMUKH GAURI VINOD	24
23	DHAMAL SHRUSTI BALASAHEB	20
24	VIBHUTE SOMESH RAMRAO	20
25	WAKTE TEJAS VIJAY	25
26	KUTE SAKSHI DINKAR	25
27	BANERJEE SHREYASI	· (C24 ge of)
28	CHAVAN DEEKSHA PRAKASH	8/20
29	DERE SHRUTI HANUMANT	25
30	BOTRE SHIVAI SUNIL	24







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Sr. No	Name of Student	Interview 30 Marks
31	BURUKALE VAISHNAVI SANTOSH	25
32	CHAVAN SHREYAN YOGESH	24
33	SOLANKE SAGAR SANDIPAN	24
34	MATHE ADITYA AJAY	20
35	MOKASHI SHARVARI BABURAO	25
36	MULE PRASANNA GANESH	24
37	NAIKADE SIDDHI DATTATRAY	24
38	NALGE JANHAVI SIDDHIVINAYAK	25
39	DONGARE SAKSHI LAXMAN	24
40	GAVHANE SAYALI SANTOSH	24
41	JADHAV VAISHALI SUBHASH	25
42	KAMBLE SHRUTI NILESH	24
43	KHAMKAR VAISHNAVI RAJENDRA	24
44	KAMBLE SAINATH PANDURANG	20
45	KARALE VAISHNAVI TARUN	20
46	KARANDE SNEHAL RAMCHANDRA	24
47	KASHID PRATIKSHA PRADIP	24
48	KATE VAISHNAVI SHANKAR	20
49	BHOSALE PAYAL RAJESH	20
50	BOBADE SHIVAM DEEPAK	25
51	CHAUDHARY MANDAR MAHENDRA	25
52	CHAVAN PRASAD ANIL	24
53	CHOUDHARY KISHAN JAGDISH	20
54	CHOWKIDAR ADAVAITA MUKUNDRAO	25
55	GOPNAR KESHAV RANJEETRAO	24
56	GORE VIKAS AJINATH	24
57	GOSAVI DEEPALI SHRIKRUSHNA	20
58	GOYAKAR ATHARVA SIDDHESHWAR	20
59	JADHAV RUPESH RAMRAO	25
60	JADHAV SOHAM SANJAY	24

Dr. A. R. Kumbhar Course Co-ordinator



Dr. P. D. Chaudhari Principal

Page 2 of 2





# Certificate of The Complete Healthcare Artificial Intelligence Course



# CERTIFICATE OF RECOGNITION

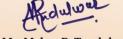


This certificate is presented to

# JAMBHALE VAISHNAVI M.

for Successfully completing the certificate course **"The Complete Healthcare Artificial Intelligence Course"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 21/11/2023 to 30/11/2023. His/Her Participation is highly appreciated.





Mr. Meher R. Tundulwar
Director RACE Institute



Dr. P. D. Chaudhari Principal



# CERTIFICATE OF RECOGNITION



This certificate is presented to

## KSHIRSAGAR TUSHAR H.

for Successfully completing the certificate course **"The Complete Healthcare Artificial Intelligence Course"** Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 21/11/2023 to 30/11/2023. His/Her Participation is highly appreciated.



Mr. Meher R. Tundulwar
Director RACE Institute

Dr. P. D. Chaudhari Principal







# CERTIFICATE OF RECOGNITION



This certificate is presented to

## KAMBLE ANURADHA K.

for Successfully completing the certificate course "The Complete Healthcare Artificial Intelligence Course" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 21/11/2023 to 30/11/2023. His/Her Participation is highly appreciated.



Dr. A. R. Kumbhar Co-ordinator



**Director RACE Institute** 



Principal



# CERTIFICATE OF RECOGNITION



This certificate is presented to

# HATEKAR JYOTI D.

for Successfully completing the certificate course "The Complete Healthcare Artificial Intelligence Course" Organized by PES's Modern College of Pharmacy, Nigdi, Pune-411044 in association with RACE Institute from 21/11/2023 to 30/11/2023. His/Her Participation is highly appreciated.



Mr. Meher R. Tundulwar **Director RACE Institute** 

Dr. P. D. Chaudhari Principal





## **Brochure of PGM GPAT Course**



# PGM GPAT CLASSES

In association with Modern College of Pharmacy, Nigdi Pune

# Guest session

On GPAT & NIPER JEE

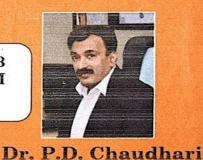
- How to prepare for GPAT ?
- Subjects to be focused ?
- Time management
- Questions to be attempt



Mr. Amey Gavaskar (GPAT 2023 AIR 1 NIPER JEE 2023 AIR 1)



Date - 11<sup>th</sup> August 2023 Time - 10:30 - 11:30 AM Venue - MCOP, Pune



Dr. M.T. Harde Competitive Exam Incharge

Principal

# Organized By

PES's Modern College of Pharmacy

- & PGM Faculty
- Tushar Phalke
- Yogish Garhwani
- Gaurav Mahajan
- Namrata Shinde
- Shilpa Biradar
- Yashoda Tidake

Contact - 7038806395/8847791920/7768053933





# **List of students of PGM GPAT Course**

P. E. Society's Modern College of Pharmacy, Nigdi, Pune. Academic Year 2022-23

2 Shindle Adity a 3 Riya Shinke 4 Shindle Sayali 5 Thete kaja 6 Siddhi, S. Waghule 7. Shureta Mohan Mhetre 8 Cribrish Sudain Parul 9 Diquijay Bhanat Mane 11. Aditi - A - Pathado 12. Rutrija K. Sontakke 13. Slarke Vailnavi Vishrur 14. 15 Vaishnavi pramod Atole 14. 16 pooja Shankar Halkar 15. 16. 17. 18. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19	nal year nal year nal year final year	Shinde A
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Riya Shinke F  4 Shinde Sayali  5 Thete kajal  6 Siddhi, S. Waghule  7. Shureta Mohan Mhetre  8. Cribrish Sudain Pawl  9. Diqvijay Bhrat Mane  11. Aditi - A - Pathado  12. Ritaja K. Sontake  13. Slake Janhani Vishun  14. 15 Vashnavi pramed Atole  14. 16 pooja Shankar Halkar  15.  16.  17.  18.  19.  19.  19.  19.  19.  19.  19	nal year final year	stiske
5 Shinde Sayali  Thete kajal  Sidhi. S. Waghule  Shureta Mohan Mhetre  S. Cristish Budain Panu  P. Diqvijay Bharat Mane.  Arnit Rajthli Yadav  II. Aditi - A - Pathado  R. Rutija K. Sontakke  T. Skuke Vaihawi Vishuu  Se up yeetanjali Narrayan Bhale  Washnavi pramod Atole  Poojo Shankar Halkar  Doojo Shankar Halkar  Se.  Se.  Se.  Se.  Se.  Se.  Se.  Se	final year	
5 Thete kojal 6 Siddhi, S. Waghule 7. Shuveta Mohan Mhetre 8 Critorish Scidoin Pawl 9. Diqvijay Bhrat Mane. 11. Aditi - A - Pathodo 12. Rutuja K. Sontakke 13. Skovka Vaihnavi Vishnu 14. Le rycetanjali Narrayan Bhale 15. Vaishnavi pramod Atole 16. Le pooja shankar Halkar 16. Le pooja shankar Halkar 17. Le pooja shankar Halkar 18. Le pooja shankar Halkar 19. Store		Amen's
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7. Shweta Mohan Mhetre 8. Critrish Budeih Paul 9. Diqvijay Bhrat Mane. 11. Aditi - A - Pathado 12. R. Rutuja K. Sontakke 13. Slanks Vaihnavi Vishnu 14. Is Vaikhnavi Pramod Atole 14. Is Vaikhnavi pramod Atole 15. Poojo Shankar Halkar 15. 15. 15. 15. 15. 15. 15. 15. 15. 15.	inal Year	Ridde.
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9- Diqvijay Bhrat Mane. T. Amit Rajtali Yadav  11. Aditi - A - Pathodo T. R. Rutuja K. Sontakke T.  13. Slavke Vaihneni Vishnu T.  14. If yestanjali Narrayan Bhale T.  15. Vaishnavi pramod Atole  16. 16 pooja shankar Halkar  17. 15  18. 16  19. 15  19. 10  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 10  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 10  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 10  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 10  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 10  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 15  19. 1	74.B. Phom	about
Amit Rajbali Yadar  11. Aditi - A - Pathodo T  12. Rutuja K. Sontakke T  13. Slanka vanhani Vishnu  146. Up ucetanjali Narayan Bhale  147. IS Vakhnavi pramod Atole  148. 6 poojo shankar Halkar  149.  150.  151.  152.  153.  154.  155.  156.  157.	Y. B. Pharm	Talore
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13. Slanke Vanhami Vishmu T  46. Up yeetanjali Narayan Bhale T  48. 16 pooja Shankar Halkar 49. 50. 51. 52. 53. 54. 55. 56.	. y . B . pharm	dealla
13. Slanke Vanhaur Vishau  46. Up usetanjali Narayan Bhale  47. IS Vakhavi pramod Atole  48. 6 poojo shankar Halkar  49.  50.  51.  52.  53.  54.  55.  56.	. 4. B. Phaem	Budk
46. Up yestanjali Narayan Bhale  47. 15 Vajshnavi pramod Atole  48. 6 pooja Shankar Halkar  49.  50.  51.  52.  53.  54.  55.  56.	. 4 B. Pharm	Histe
#8. 15 Vaishnavi pramod Atole  48. 16 pooja shankar Hatkar  49.  50.  51.  52.  53.  54.  55.  56.	y. B. Pharm	AR Un.
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Dr. Minal T. Harde (Test Incharge) Dr. P. D. Chaudhari (Principal)

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# **Curriculum of students of PGM GPAT Course**

Data		Mentor Name	Signature
Date 1-Aug	P'ceutics-Capsules & Kahoot 8 (9-10 AM)	Mr. Tushar	Signature
2-Aug	O.C. & Kahoot 9 (9-10 AM)	Ms. Namrata	
3-Aug	O.C. (SN1 & SN2), Local+General Anaesthetics & Kahoot 10 (5-6 PM)	Mr. Yogish	
4-Aug	Receptors & Kahoot 11 (9-10 AM)	Mrs. Shilpa	
5-Aug	Physical Chemistry Intro & Numericals Online (5-6 PM)	Mr. Gaurav	@ Antohogen
7 1	Pharmaceutics Kahoot 12 (9 to 10)	Mr.Tushar	D
7-Aug	General P'cology Online	Ms.Shilpa	
	Organic Chem.	Ms. Namrata	
8-Aug	Test no. 01 [PC+GP+P+HC]	Mr.Tushar	8
9-Aug	Antihypertensives: Class & MOA & Kahoot 13 (9-10 AM)	Mr. Yogish	
10-Aug	Missessities (0.10	Mr. Gaurav	appeloger
11-Aug	Guest Lecture (10:30-11:30 AM)	Mr. Amey Gavaskar (GPAT & NIPER JEE AIR 1)	
12-Aug	Weekly Test 1 Discussion, P'cology & Kahoot 14 (1-3 PM)	Ms. Shilpa	
14-Auş	PLIVI)	Ms. Yashoda	
15-Aug	PAIVI-12 I IVI)	Ms. Yashoda	
16-Aug	Biochemistry Proteins Online (11 AM-12 PM)	Ms. Namrata	
17-Aug	Antihypertensives Continued & Kahoot 15 (9-10 AM)	Mr. Yogish	
18-Aug	Offittle (11 AMI-12 PM)	Ms. Yashoda	
19-Aug	Not taken		
	Holiday		





21	-Aug	Organic Chemistry: Hybridization (9-10:15 AM)	Ms. Namrata	
	11119	Polycyclic Compounds & Kahoot 16 (5-6 PM)	Mr. Yogish	
22	-Aug	P'cology: Immunity & Kahoot 17 (9-10:20 AM)	Mr. Tushar	0
		P'cology: ANS (5-6 PM)	Mrs. Shilpa	
23	-Aug	P'cology: Histamine (9-10 AM)	Mr. Tushar	0
24	-Aug	P'ceutics: Dissolution, pH-partition & BCS equation (9-10 AM)	Mr. Gaurav	Queloger and
25	-Aug	P'cology: Sympatholytics & Kahoot 18 (9-10 AM)	Mrs. Shilpa	
26	-Aug	P'cology: NSAIDs (1:30-3.15 PM)	Mr. Tushar	0
28	-Aug	O.C.(9.00-10.00 AM)	Ms. Namrata	
29	-Aug	Cognosy (9.00 to 10.00 AM)	Ms. Yashoda	
30	-Aug	Holiday		
	-Aug	Holiday (9-10 AM)	Mr.Yogish	
		The state of the s	Mr.Yogish	
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# **Summary of students of PGM GPAT Course**

#### **Summary Report**

On 29th August 2022, behalf of PES's Modern College of Pharmacy, Nigdi we started new initiative named as "PGM GPAT Coaching Class" for Third Year & Final Year B. Pharm Students. It's been a wonderful journey as this initiative steps further very rapidly. GPAT is a competitive exam needed for entry in M. Pharm which provides finanacial assistance to students.

Mentors at PGM GPAT Class are well acquainted with the pattern & subject knowledge of the GPAT exam. They have also explained the topics which have not only the importance in the exam but also carry significant role in day-to-day life. They have cleared the doubts of the students at the end of every lecture. Regular monitoring & attendance of students has been followed for every lecture. At the end of every subject topic we have conducted test to get an idea about understanding of topic from student's perspective.

Also mentors dealt the strategy with students for easy solvation of questions & time management in GPAT exam. Tricks & pnemonics have been circulated along with notes for last minute revision to get ready for the exam. There were total 148 lectures conducted during duration from 18th July 2023 to 7th June 2024 across subjects like Pharmaceutics, Pharmaceutical Chemistry, Pharmacology, Pharmacognosy & other allied subjects. Also Mock Test series consisting of 10 tests conducted under the guidance of Dr. Minal Harde Madam during this course. Total 10 students attended the regular class & out of 10 students, 8 appeared for GPAT 2024 Exam.







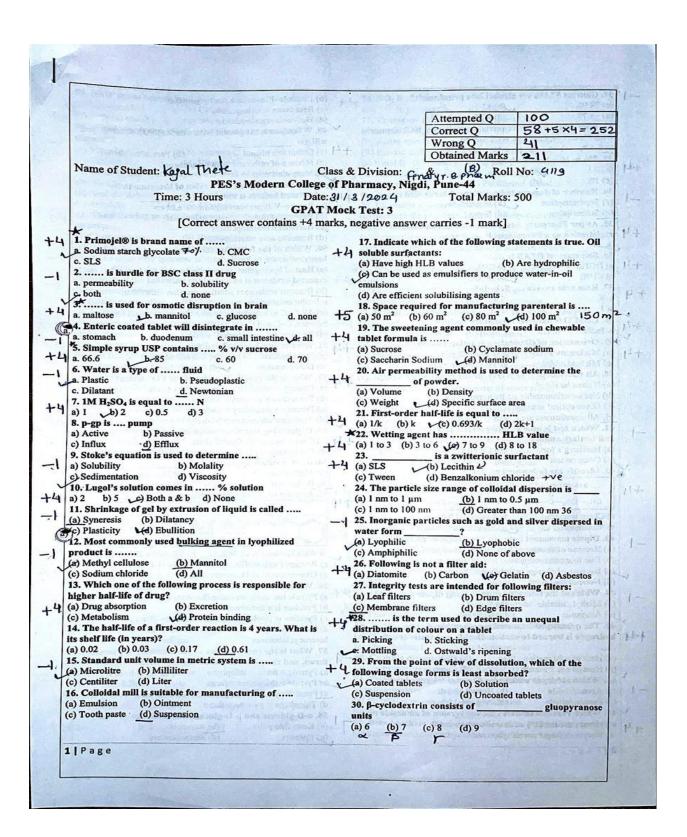
# **Attendance of students of PGM GPAT Course**

	14 Girish Sudesh Patil	14 Girish Sudash Pa	13 Duting C	12 Shweta Mhetre	11 Sanika Talekar	10 Aditi An	9 Vaishnavi Shirke	8 Vaishnav	7 Siddhi S	6 Kajal Ganpat Thete	5 Ajinkya	4 Riya Shivaji Shirke	3 Sayali Raju Shinde	2 Aditya I	1 Pooja S	Sr No Name of Student			
	ıdesh Patil	Idash Patil	ontolde	Whetre	alekar	10 Aditi Ambadas Pathade	/i Shirke	8 Vaishnavi Pramod Atole	7 Siddhi Sudhir Waghule	inpat Thete	5 Ajinkya Nanasaheb Tanpure 4th B	vaji Shirke	aju Shinde	2 Aditya Dinesh Shinde	1 Pooja Shankar Hatkar	Student			
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#### Assessment of students of PGM GPAT Course







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	The second secon					
				Attempted Q	89	
				Correct Q	43×4 = 172	15777
		1		Wrong Q	46 = -46	
				Obtained Marks	131	1
			Division: T.Y.		No: 0008	2
	PES's Modern College					
			13/2024	Total Marks:	500	1-
	GPAT [Correct answer contains +4 m		CTest: 3	r corrier 1 mark]		
	[Correct answer contains +4 in	arks, i		and the second s		12 2
*	1. Primojel® is brand name of			ich of the following st	atements is true. Oil	
+4	a. Sodium starch glycolate b. CMC c. SLS d. Sucrose	44	(a) Have high H		Are hydrophilic	1000
	2 is hurdle for BSC class II drug			as emulsifiers to produ		1177
XM	a. permeability b. solubility t		emulsions			
1.	c. both d. none 3 is used for osmotic disruption in brain		(d) Are efficient	solubilising agents red for manufacturin	g narenteral is	174
*	a. maltose	+5	(a) 50 m <sup>2</sup> (b)		(d) 100 m <sup>2</sup>	
44 a.	4. Enteric coated tablet will disintegrate in		19. The sweeten	ning agent commonly	used in chewable	13-4
47	a. stomach b. duodenum small intestine d. all	-1	tablet formula i	is	ita codium	*
-1	5. Simple syrup USP contains % v/v sucrose a. 66.6 b. 85 c. 60	177	(a) Sucrose (c) Saccharin So			1-
	6. Water is a type of fluid		20. Air permeal	bility method is used t	to determine the	
-1	a. Plastic b. Pseudoplastic	+4	of	powder.		
	c Dilatant d. Newtonian 7. 1M H <sub>2</sub> SO <sub>4</sub> is equal to N	, As	(a) Volume (c) Weight	(b) Density  Specific surface a	rea	
	a) 1 b) 2 c) 0.5 d) 3	14		half-life is equal to		
	8. p-gp is pump	47	(a) 1/k (b) k		2k+1	
	a) Active b) Passive c) Influx d) Efflux	1-		nt has		1-
	9. Stoke's equation is used to determine		23.	is a zwitterionic su		
44	a) Solubility b) Molality	+4	(a) SLS	(b) Lecithin	A STATE OF THE STA	1
	c) Sedimentation de Viscosity  10. Lugol's solution comes in % solution		(c) Tween  24. The particle	(d) Benzalkonium ch size range of colloida		1
-1	a) 2 b) 5 c) Both a & b d) None	-1	(a) 1 nm to 1 µm			
	11. Shrinkage of gel by extrusion of liquid is called		(c) 1 nm to 100 r		han 100 nm 36	
4	(a) Syneresis (b) Dilatancy (c) Plasticity (d) Ebullition		water form	articles such as gold a	nd silver dispersed in	
(4)	12. Most commonly used bulking agent in lyophilized	-1	(a) Lyophilic	(b) Lyophob	oic Toronton They is a	
-1	product is		(c) Amphiphilic		above	
	(a) Methyl cellulose (b) Mannitol (c) Sodium chloride (d) All	-	26. Following is (a) Diatomite		latin (d) Asbestos	Till the same
	13. Which one of the following process is responsible for		27. Integrity tes	ts are intended for fo		13.00
+4	higher half-life of drug?	44	(a) Leaf filters	(b) Drum fil		May 12
	(a) Drug absorption (b) Excretion (c) Metabolism (d) Protein binding	*	(c) Membrane fil	lters (d) Edge filt term used to describe		1
	14. The half-life of a first-order reaction is 4 years. What is			colour on a tablet	TO SERVICE SHIP TO SERVICE	1
-1	its shelf life (in years)?	-		b. Sticking		17/2
	(a) 0.02 (b) 0.03 (c) 0.17 (d) 0.61 15. Standard unit volume in metric system is		Mottling	<ul> <li>d. Ostwald's ripening int of view of dissolut</li> </ul>		
+4	(a) Microlitre (b) Milliliter	+4		e forms is least absorb		2
,	(c) Centiliter (d) Liter	1 1		s (b) Solution		1434
	16. Colloidal mill is suitable for manufacturing of (a) Emulsion (b) Ointment		(c) Suspension 30. β-cyclodextr	(d) Uncoated	d tablets gluopyranose	No.
-1	(c) Tooth paste (d) Suspension		units	in consists or	gruopyranose	
	1 47 market material		(a) 6 (b) 7	(c) 8 (d) 9		
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PES's Modern College of Pha Time: 3 Hours Date: 24/3 GPAT Mock [Correct answer contains +4 marks, no 1. Order of reaction in kinetics depends on number of  A reactants b. products c. both d. intermediates	Total Marks: 500
PES's Modern College of Pha  Time: 3 Hours  Date: 24/3  GPAT Mock  [Correct answer contains +4 marks, now reactants b. products c. both d. intermediates  2. Higher V <sub>d</sub> value represents higher binding  a blood b. tissue c. both d. brain  3. Weakly acidic drug will absorb from a. whole GIT b. stomach on intestine d. none  4. Particle size reduction will help in a. diffusion b. partitioning c. dissolution d. all  5. Uncoated tablets have disintegration time of minutes a. 5 b. 15 c. 30 d. 60  6. Log P value is good when it is a. 2-5 b. < 2 c. > 5 d. 1  7. Passive immunity is obtained by injecting a) Antiserum b) Antigen of Vaccine d) Antibody  8. Majority of drugs cross the biological membrane by a) Passive diffusion b) Facilitated diffusion c) Active diffusion d) Pinocytosis  9. Number of gram equivalents of the solute per liter of solution is known as a) Normality b) Molality	Wrong Q  Obtained Marks  Polivision: T. V & A Roll No: 3014  armacy, Nigdi, Pune-44  5/24 Total Marks: 500  Test: 2  egative answer carries -1 mark]  19. Which of the following route of administration of drugs is associated with Phlebitis?  a) SC b) IV c) Intraspinal d) Intradural  20 is withdrawn from market due to TdP  a) Chlorpromazine b) Astemizole c) Haloperidol d) Domperidone  21 is not used in preparation of baby powders a) Stearic acid b) Boric acid c) Kaolin d) CaCO3  22. Speed disk atomizer rotates at a speed of rpm a) 3000-5000 b) 3000-50000 c) 300-50000 d) 300-500  23. Aqueous polymeric solution shows flow a) Shear thining b) Shear thickening c) Newtonian d) Plast  24. Role of borax in cold cream is a) Antimicrobial b) In-situ emulsifier c) To provide fine particles to polish the skin d) Antioxidant  25 is heat of vaporization of watetr at 100°C a) 2790 cal/mole b) 7290 cal/mole
PES's Modern College of Pha  Time: 3 Hours  Date: 24/3  GPAT Mock  [Correct answer contains +4 marks, now reactants b. products c. both d. intermediates  2. Higher V <sub>d</sub> value represents higher binding  a blood b. tissue c. both d. brain  3. Weakly acidic drug will absorb from a. whole GIT b. stomach on intestine d. none  4. Particle size reduction will help in a. diffusion b. partitioning c. dissolution d. all  5. Uncoated tablets have disintegration time of minutes a. 5 b. 15 c. 30 d. 60  6. Log P value is good when it is a. 2-5 b. < 2 c. > 5 d. 1  7. Passive immunity is obtained by injecting a) Antiserum b) Antigen of Vaccine d) Antibody  8. Majority of drugs cross the biological membrane by a) Passive diffusion b) Facilitated diffusion c) Active diffusion d) Pinocytosis  9. Number of gram equivalents of the solute per liter of solution is known as a) Normality b) Molality	Obtained Marks   &2   Division: T-V & A   Roll No: 3014  armacy, Nigdi, Pune-44  5/24   Total Marks: 500  Test: 2 egative answer carries -1 mark]  19. Which of the following route of administration of drugs is associated with Phlebitis? a) SC   b) IV   c) Intraspinal   d) Intradural  20 is withdrawn from market due to TdP a) Chlorpromazine   b) Astemizole   c) Haloperidol   d) Domperidone  21 is not used in preparation of baby powders a) Stearic acid   b) Boric acid   c) Kaolin   d) CaCO3  22. Speed disk atomizer rotates at a speed of rpm a) 3000-5000   b) 3000-50000   c) 300-50000   d) 300-500  23. Aqueous polymeric solution shows flow a) Shear thining   b) Shear thickening   c) Newtonian   d) Plast 24. Role of borax in cold cream is a) Antimicrobial   b) In-situ emulsifier   c) To provide fine particles to polish the skin   d) Antioxidant 25 is heat of vaporization of watetr at 100°C a) 2790 cal/mole   b) 7290 cal/mole
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PES's Modern College of Pha  Time: 3 Hours  Date: 24/3  GPAT Mock  [Correct answer contains +4 marks, now reactants b. products c. both d. intermediates  2. Higher V <sub>d</sub> value represents higher binding  a blood b. tissue c. both d. brain  3. Weakly acidic drug will absorb from a. whole GIT b. stomach on intestine d. none  4. Particle size reduction will help in a. diffusion b. partitioning c. dissolution d. all  5. Uncoated tablets have disintegration time of minutes a. 5 b. 15 c. 30 d. 60  6. Log P value is good when it is a. 2-5 b. < 2 c. > 5 d. 1  7. Passive immunity is obtained by injecting a) Antiserum b) Antigen of Vaccine d) Antibody  8. Majority of drugs cross the biological membrane by a) Passive diffusion b) Facilitated diffusion c) Active diffusion d) Pinocytosis  9. Number of gram equivalents of the solute per liter of solution is known as a) Normality b) Molality	armacy, Nigdi, Pune-44  1/24 Total Marks: 500  Test: 2 egative answer carries -1 mark]  19. Which of the following route of administration of drugs is associated with Phlebitis? a) SC b) IV c) Intraspinal d) Intradural  20 is withdrawn from market due to TdP a) Chlorpromazine b) Astemizole c) Haloperidol d) Domperidone  21 is not used in preparation of baby powders a) Stearic acid b) Boric acid c) Kaolin d) CaCO3  22. Speed disk atomizer rotates at a speed of rpm a) 3000-5000 b) 3000-50000 c) 300-5000 d) 300-500  23. Aqueous polymeric solution shows flow a) Shear thining b) Shear thickening c) Newtonian d) Plast  24. Role of borax in cold cream is a) Antimicrobial b) In-situ emulsifier c) To provide fine particles to polish the skin d) Antioxidant 25 is heat of vaporization of watetr at 100°C a) 2790 cal/mole b) 7290 cal/mole
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solution is known as  Normality b) Molality	
a) Normality b) Molality	
c) Molarity d) Mole fraction	26. Larger values of Ky in heckel's plot indicates type
do same to an add to distillation	of tablet
a) Fractional b) Molecular c) Simple d) Steam	a) Harder b) Soft c) Fluffy d) Brittle  27. What for baffles are provided in a shell & tube heat
a) Fractional b) Molecular c) Simple d) Steam  11. Distribution is perfusion rate limited for Drugs	exchanger?
	To increase turbulence b) To decrease turbulence
12. Which of the following is not a cause for the drug	c) To prevent corrosion d) To increase shell size passe
	28 wavelength of UV light provides maximum
a) Enzyme inhibition b) Enzyme induction	germicidal action
c) Saturation of carrier molecules	a) 253.7 nm b) 275.5 nm c) 283.5 nm d) 240 nm
d) Saturation of plasma protein binding	29. Target material used in the production of X-rays is
13. NaOCl is also known as solution	a) K b) Cu c) Al d) Na
Lugol b) Dakin c) Formalin d) Lindlar	30. Draves test is associated with measuring the efficiency
14. Surface tension is categorised as a/an factor?	of
(a) Intensive (b) Capacity (c) Extensive (d) Tolerance	a) Detergents b) Wetting agents
15. The labelling instructions "To be diluted 20 times it's	c) Suspending agents d) Adsorbent
volume with water" indicates the dispensed product is	31. Application for the issue of a permit to import small
(a) Mouthwash (b) Elixir (e) Linctus (d) Mixture  16. Macrogol 1000 is the base used for the semi-solid	quantities of drugs for personal use are shall be made in
dosage form, it is also called	(a) Form 12 (b) Form 12A
(a) PEG 500 (b) PEG 20 (c) PEG 200 (d) PEG 1000	(a) Form - 12 (c) Form - 12AA (d) Form - 13
17. Which is an example of cationic surfactant?	(c) Form - 12AA (d) Form - 13  22. Which of the following drugs can be imported without
(a) Benzalkonium chloride (b) Polysorbate 80	a license?
(c) Sodium lauryl sulphate (d) Sorbitol mono oleate	(a) Drugs specified in schedule H
18. The temperature at which the solubility of the	(b) Drugs specified in schedule X
surfactant is equal to CMC is	(e) Drugs in schedule C1 required for manufacturing and no
(a) Kraft point (b) Boiling point	for medicinal use
(c) Melting point (d) Both a & b	
1   Page	





	R JAN NO. W. T.		
		Attempted Q	77
		Correct Q	45
	Z Z	Wrong Q	32
	To the parties of the	Obtained Marks	148
PES's Modern College Time: 3 Hours Date	Mock Test: 3 harks, negative answ 17. Indicate w soluble surfac (a) Have high I (c) Can be used emulsions (d) Are efficien	Total Marks:  Total Marks:  er carries -1 mark]  hich of the following stants:  HLB values (b)  I as emulsifiers to product	Are hydrophilic ce water-in-oil
3 is used for osmotic disruption in brain		ired for manufacturing	
a. maltose b. mannitol c. glucose d. none 4. Enteric coated tablet will disintegrate in		) 60 m <sup>2</sup> (c) 80 m <sup>2</sup> ening agent commonly t	
a. stomach b. duodenum e. small intestine d. all	tablet formula		of All a legical
5. Simple syrup USP contains % v/v sucrose	(a) Sucrose	(b) Cyclama	
(a. 66.6 b. 85 c. 60 d. 70  6. Water is a type of fluid	(c) Saccharin S	odium (d) Mannitol ability method is used to	
a. Plastic b. Pseudoplastic		f powder.	determine the
c. Dilatant d. Newtonian	(a) Volume	(b) Density	
7. 1M H <sub>2</sub> SO <sub>4</sub> is equal to N	(c) Weight	(d) Specific surface ar	
a) 1 b) 2 c) 0.5 d) 3 8. p-gp is pump	(a) 1/k (b) k	half-life is equal to (c) 0.693/k (d)	2k+1
a) Active b) Passive	22. Wetting ag	ent has HI	B value
c) Influx d) Efflux	(a) 1 to 3 (b)	3 to 6 (c) 7 to 9 (d) 8	to 18
9. Stoke's equation is used to determine	The second secon	is a zwitterionic su	rfactant
a) Solubility b) Molality O'Sedimentation d) Viscosity		(b) Lecithin naves) Benzalkonium chl	oride+)
10. Lugol's solution comes in % solution		e size range of colloida	
a/2 b) 5 c) Both a & b d) None	(a) 1 nm to 1 μr	m (b) 1 nm to 0	.5 μm
11. Shrinkage of gel by extrusion of liquid is called	(c) 1 nm to 100		
(a) Syneresis. (b) Dilatancy (c) Plasticity (d) Ebullition	. 25. Inorganic p	particles such as gold as	nd silver dispersed in
12. Most commonly used bulking agent in lyophilized	(a) Lyophilic		c - training
product is		(d) None of a	
(a) Methyl cellulose (b) Mannitol		s not a filter aid:	La Della Maria Care Call
(c) Sodium chloride (d) All  13. Which one of the following process is responsible for	(a) Diatomite		atin (d) Asbestos
higher half-life of drug?		sts are intended for fol (b) Drum filt	
(a) Drug absorption (b) Excretion		ilters (d) Edge filte	
(e) Metabolism (d) Protein binding		term used to describe	an unequal
14. The half-life of a first-order reaction is 4 years. What is its shelf life (in years)?	distribution of	b. Sticking	
(a) 0.02 (b) 0.03 (c) 0.17 (d) 0.61	Mottling	d. Ostwald's ripening	
15. Standard unit volume in metric system is		oint of view of dissoluti	on, which of the
(a) Microlitre (b) Milliliter		ge forms is least absorb	ed?
(c) Centiliter (d) Liter  16. Colloidal mill is suitable for manufacturing of	(a) Coated table		tablata
(a) Emulsion (b) Ointment	30. β-cyclodext	(d) Uncoated rin consists of	gluopyranose
(c) Tooth paste (d) Suspension	units	lo selecció de la la la la la la la la la la la la la	g.sopjinios
and a reserve to the control of the	(a) 6 (b) 7	(c) 8 (d) 9	
1   Page			





Name of Student: Geetanjali N-Bhale  PES's Modern College of Pharmacy, Nigdi, Pune-44  Time: 3 Hours  Orange of Pharmacy, Nigdi, Pune-44  Time: 3 Hours  Orange of Pharmacy, Nigdi, Pune-44  Time: 3 Hours  Orange of Pharmacy, Nigdi, Pune-44  Total Marks: 500  Orange of Pharmacy, Nigdi, Pune-44  (a) Ascorbic acid  (b) Propyl gallate  (c) Sodium chloride  (d) Both (b) and (c)  14. Which is the most recently used reagent for the validation of HEPA filter?  (a) Emory 3004  (b) LAL reagent  (c) Antiger of Orange of Conductivity test  (a) All of the following is test are necessary for the quality testing of parenteral except  (a) Emory 3004  (b) LAL reagent  (c) Antiger of Orange						A44-10	
Name of Student: Geetanjali N-8hale PES's Modern College of Pharmacy, Nigdi, Pune-44 Time: 3 Hours Date: 1/4 O/3 0.24 Total Marks; 500 GPAT Mock Test: 1  [Correct answer contains +4 marks, negative answer carries -1 mark]  1. Paste is a semi-solid preparation which is a (a) Magma (b) Concentrated emulsion (c) Gel (d) Concentrated suspension 2. Creep testing is applied to analyse the viscoelastic property of (a) Emulsions (b) Lotion (c) Ointments (d) Suspensions 3. Which of following technique(s) la/are used to determine particle size of aerosul? (a) Microscopy (c) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an obtiment that may be classified as (a) Suppository? (a) Microscopy (d) Edit, (b) Edit (b) Edit (c) Adoling the substitution of HEPA filter? (b) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an obtiment that may be classified as (a) Suppository? (a) Microscopy (c) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an obtiment that may be classified as (a) Suppository? (a) Microscopy (c) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an obtiment that may be classified as (a) Suppository? (a) Microscopy (c) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an obtiment that may be classified as (a) Suppository? (a) Microscopy (c) A proper test are necessary for the quality content of the following is the lowest melting point polymorphic form of cocoa butter? (b) Sympatom of layer (c) Hydrogenated palm kernel oil (d) All of above (a) A post (d) Both (b) and (d) Both (d) All of above (b) Separation of layer (c) Appearance of bigger size globules (b) Separation of layer (c) Appearance of bigger size globules (b) Separation of layer (c) Appearance of bigger size globules (b) Separation of layer (c) Appearance of bigger size globules (b) Separation of layer (c) Appearance of bigger size globules (b) Separation of layer (c) Appearance of bigger size globules (b) Separation of layer (c) Appearance of bigg						Attempted Q	62
Name of Student: Geetan Joli N. 80 ale  PES's Modern College of Pharmacy, Nigdi, Pune-44  Date: 17/03/2024 Total Marks; 500  GPAT Mock Test: 1  [Correct answer contains +4 marks, negative answer carries -1 mark]  1. Paste is a semi-solid preparation which is a (a) Magma (b) Concentrated emulsion (c) Gel (d) Concentrated suspension 2. Creep testing is applied to analyse the viscoelastic property of (a) Emulsions (b) Lotion (c) Gel (d) Concentrated suspension 3. Which of following technique(s) la/are used to determine particle size of aerosol? (a) Microscopy (b) Cascade impactor (c) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an ointment that may be classified as (a) Water-soluble base (b) Oleaginous base (c) Absorption base (d) Emulsion base (d) House (d) All of the above (e) Advantage (d) All of the above (e) Advantage (d) All of the above (e) Advantage (d) Emulsion base (d) House (d) All of the above (d) All of the above (d) All of the above (e) Advantage (d) Emulsion base (d) Emulsion b							
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Time: 3 Hours  OPAT Mock Test: 1  [Correct answer contains +4 marks, negative answer carries -1 mark]  1. Paste is a semi-solid preparation which is a (a) Magma (b) Concentrated emulsion (c) Gel (d) Concentrated suspension  2. Creep testing is applied to analyse the viscoelastic property of (a) Emulsions (b) Lotion (c) Ointments (d) Suspensions  3. Which of following technique(s) is/are used to determine partiele size of arerosol? (a) Microscopy (b) Cascade impactor (c) Light scatter decay (d) Both (b) and (c)  4. Vanishing cream is an ointment that may be classified as (a) Water-soluble base (b) Dleaginous base (c) Absorption base (c) Absorption base (c) Absorption base (d) Emulsion base (e) Absorption base (e) Absorption base (e) Emulsion base (or Suppository? (a) Emory 3004 (b) LAL reagent (e) Alcohol (d) None (15. The following tests are necessary for the quality testing of parentarel except (a) Water-soluble base (b) Dleaginous base for suppository? (a) Microscopy (c) Ca (d) Bl (d) All of above (e) Water-soluble base (b) Synthetic fat (c) Hydrogenated palm kernel oil (d) All of above (e) Which of following is oleaginous base for suppository? (a) Emoly 3004 (b) LAL reagent (e) Alcohol (d) None (15. The following tests are necessary for the quality testing of parental except (a) Water-soluble base (b) Dleaginous base for suppository? (a) Coop abuter (c) Hydrogenated palm kernel oil (d) All of above (e) Which of following algent used in the ophthalmic solution is: (a) All of the following is an invitro test and it is used in parental vesting as a quality control parameter. (a) Settling (c) Hydrogenated palm kernel oil (d) All of above (e) Sodium bicarbonate (d) PEG 4000  18. The vacuum applied for the leaker test for vials is (e) Sodium bicarbonate (d) PEG 4000  18. The vacuum applied for the leaker test for vials is (e) Sodium bicarbonate (d) Pica of the ophthalmic solution is: (a) Solution divide the partiel size of the powder material (b) It is used to increase the thickne	Name	of Student: G	peranjan 14 Briane				INO: 3014
[Correct answer contains +4 marks, negative answer carries -1 mark]  1. Paste is a semi-solid preparation which is a (a) Magma (b) Concentrated emulsion (c) Gel (d) Concentrated emulsion (e) Ascorbic acid (b) Propyl gallare (c) Sodium chloride (d) Both (b) and (c)  2. Creep testing is applied to analyse the viscoelastic property of (a) Emulsions (b) Lotion (c) Ontments (d) Suspensions  3. Which of following technique(s) is/are used to determine particle size of aerosol? (a) Microscopy (b) Cascade impactor (c) Light scatter decay (d) Both (b) and (c)  4. Vanishing cream is an ontment that may be classified as (d) Water-soluble base (c) Absorption base (c) Absorption base (c) Absorption base (c) Absorption base (d) Emulsion base (e) Absorption base (d) Emulsion base (e) Absorption base (e) Both of the following is to leavest melting point polymorphic form of cocca butter? (a) Go. Which of the following is the lowest melting point polymorphic form of cocca butter? (a) Go. Which of the following is the lowest melting point polymorphic form of cocca butter? (a) Appearance of bigger size globules (b) Separation of layer (c) Appearance of caking (d) Breaking (e) Appearance of caking (d) Breaking (e) Appearance of caking (d) Breaking (e) Prisange projection (b) Physical evaluation (d) Both band c (e) Prisange projection (e) Physical evaluation (f) Both (e) and (b) (e) Prisange projection (e) Physical evaluation (f) Both (e) and (f) (e) Commanding dy selected by (h) Flame projection (e) Physical evaluation (f) Both (e) and (f) (f) (f) (f) (f) (f) (f) (f) (f) (f)		· mi					500
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(c) Light scatter decay (d) Both (a) and (b)  10. The main film-forming agent in the nail polish is (a) Nitrocellulose (b) Sulphonamide-formaldehyde (c) Ethyl lactate (d) n-butyl acetate  11. The concentration of plasticizer is nail polish is (a) 1% (b) 5% (c) 15% (d) 25%  12. Humectants mean (a) It reduces the particle size of the powder material (b) It is used to increase the thickness of the ointment (c) It is used to increase the spread of the coat over tablet	(a) Flas	h point	(b) Flame projection	11-	22. DOP or smo	ke test (dioctyl pht)	
(a) Nitrocellulose (b) Sulphonamide-formaldehyde (c) Ethyl lactate (d) n-butyl acetate 23. Aseptic area (sterile area) is (a) 1% (b) 5% (c) 15% (d) 25% (d) 25% (e) 15 tis used to increase the thickness of the ointment (e) It is used to increase the spread of the coat over tablet (c) Filter leak testing (d) Filter compatibility testing 23. Aseptic area (sterile area) is (d) Class 100 area (e) Class 100 area (f) Class 1000 area (f) Class 10000 area (f) Class	(c) Ligh	nt scatter decay	(d) Both (a) and (b)	-	usually used for		
(c) Ethyl lactate (d) n-butyl acetate  11. The concentration of plasticizer is nail polish is  (a) 1% (b) 5% (c) 15% (d) 25%  12. Humectants mean  (a) It reduces the particle size of the powder material (b) It is used to increase the thickness of the continuent (c) It is used to increase the spread of the coat over tablet  23. Aseptic area (sterile area) is  (a) Class 100 area (d) Class 10000 area  (d) Class 10000 area  (d) It is used to increase the spread of the coat over tablet				. 6-1			
11. The concentration of plasticizer is nail polish is (a) 1% (b) 5% (c) 15% (d) 25%  12. Humectants mean (a) It reduces the particle size of the powder material (b) It is used to increase the thickness of the continuent (c) It is used to increase the spread of the coat over tablet  (b) Class 10 area (d) Class 10000 area (d) Class 10000 area (d) Class 10000 area (d) It is used to increase the spread of the coat over tablet	100 Contract (100 Contract)						
(a) 1% 5% (c) 15% (d) 25%  12. Humectants mean  (a) It reduces the particle size of the powder material (b) It is used to increase the thickness of the ointment (cf) It is used to prevent the drying of the cream (d) It is used to increase the spread of the coat over tablet				. (1)	Class 100 are	(b) Class 1	
(a) It reduces the particle size of the powder material (b) It is used to increase the thickness of the ointment (c) It is used to prevent the drying of the cream (d) It is used to increase the spread of the coat over tablet				· Lu	(c) Class 10 area	(d) Class 1	
(b) It is used to increase the thickness of the ointment (c) It is used to prevent the drying of the cream (d) It is used to increase the spread of the coat over tablet				(+1	THE SECTION		Marie Control Vic
It is used to prevent the drying of the cream  (d) It is used to increase the spread of the coat over tablet				- 10			
(d) It is used to increase the spread of the coat over tablet	A STATE OF THE STA			JAG.			
	The second second		100 m m 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2 000		
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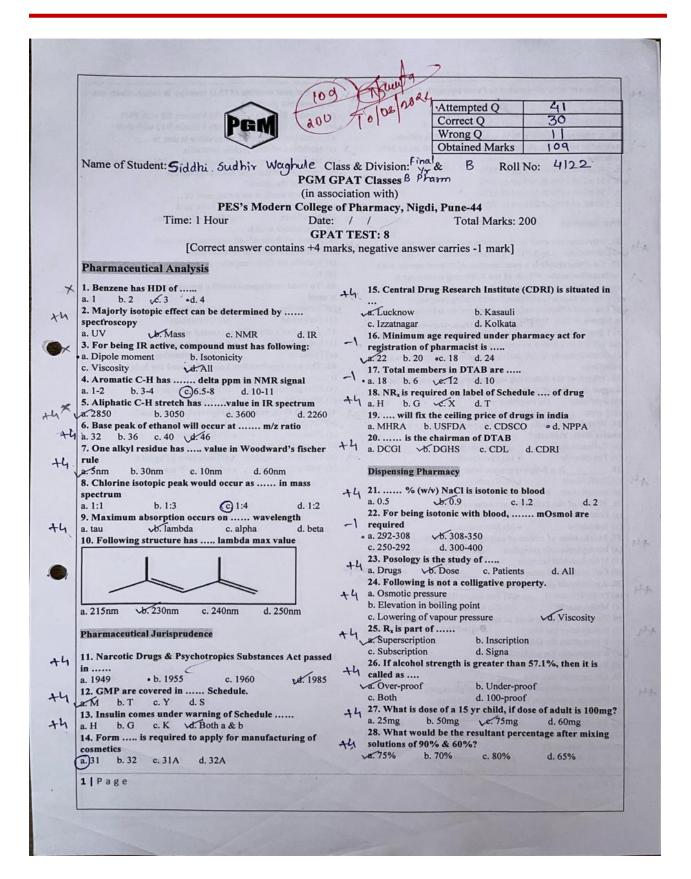




				ASSES NO.	
				Attempted Q	102.
				Correct Q	46 = 184
			100000	Wrong Q	56
				Obtained Marks	
	Name of Student: Vaishnavi Prumod Alore Cli		Division: Ty		-
	Name of Student: Vallage Madeur College				II No: 2008
	PES's Modern College		3/2024	Total Marks	. 500
			Test: 2	Total Walks	. 500
				carries -1 mark1	
	[Correct answer contains +4 ma	uks, i	legative answer	carries -1 markj	
4	1. Order of reaction in kinetics depends on number of	+4		e following route of	
•	reactants b. products c. both d. intermediates	1		ted with Phlebitis?	- inflammation.
4	2. Higher V <sub>d</sub> value represents higher binding		a) SC b) IV	c) Intraspinal d	) Intradural QRS.
1	a. blood d. brain	-	a) Chlorpromazi	ne b) Astemi	ue to TdP Taraside
1	3. Weakly acidic drug will absorb from a. whole GIT b. stomach intestine d. none		c) Haloperidol	d) Dompe	
	4. Particle size reduction will help in		21 is not	used in preparation	
1	a. diffusion b. partitioning c. dissolution d. all		a) Stearic acid	b) Boric acid	Kaolin d) CaCO3
×	5. Uncoated tablets have disintegration time of minutes		22. Speed disk a	tomizer rotates at a	speed of rpm
9	a. 5 %.15 c. 30 d. 60				300-50000 d) 300-500
	6. Log P value is good when it is	-1		ymeric solution sho	
	<ul> <li>4/2-5</li> <li>b. &lt; 2</li> <li>c. &gt; 5</li> <li>d. 1</li> <li>7. Passive immunity is obtained by injecting</li> </ul>			x in cold cream is	Newtonian d) Plast
	a) Antiserum b) Antigen Vaccine d) Antibody	-1	a) Antimicrobial	b) In-situ	
	8. Majority of drugs cross the biological membrane by			e particles to polish	
1	a) Passive diffusion b) Facilitated diffusion		Antioxidant		
	c) Active diffusion d) Pinocytosis		25 is heat o	f vaporization of wa	atetr at 100°C
	9. Number of gram equivalents of the solute per liter of		a) 2790 cal/mole	<u>b)</u> 7290 ca	
	solution is known as		c) 7920 cal/mole		
	a) Normality (a) Molality	+4		es of Ky in heckel's	plot indicates type
	c) Molarity d) Mole fraction  10. WFI is prerpared by distillation		of tablet  Harder	LI Cad al Fluid	E. J. D.:ul-
	a) Fractional b) Molecular c) Simple Steam	,	A STATE OF THE STA	b) Soft c) Fluf	fy d) Brittle a a shell & tube heat
*	11. Distribution is perfusion rate limited for Drugs	-1	exchanger?	are provided a	i a sucii ce tube neut
1	a) Ionic (b) Lipophilic c) Polar d) Water Soluble		a) To increase tu	bulence 4) To	decrease turbulence
	12. Which of the following is not a cause for the drug	Jee.	c) To prevent con	rosion d) To i	ncrease shell size passes
	a) Enzyme inhibition b) Enzyme induction	1		ngth of UV light pro	ovides maximum
	a) Enzyme inhibition b) Enzyme induction c) Saturation of carrier molecules	1	germicidal actio		202.5 0.240
	dy Saturation of plasma protein binding	kill.			283.5 nm d) 240 nm duction of X-rays is
	13. NaOCl is also known as solution formaldehyde	-1-	a) K		Al d) Na
	Lugol b) Dakin c) Formalin d) Lindlar				easuring the efficiency
	14. Surface tension is categorised as a/an factor? Mon	w	of		
-	(a) Intensive (b) Capacity (c) Extensive (d) Tolerance	nass	a) Detergents	b) Wetting	
	15. The labelling instructions To be unuted 20 times it's	onen	c) Suspending ag		
	(a) Mouthwash (b) Elixir (c) Lincus (d) Mixture				rmit to import small
1	16. Macrogol 1000 is the base used for the semi-solid	+4	quantities of dr	igs for personal use	are shall be made in
	dosage form, it is also called	Harris	(a) Form – 12	(b) Form -	12A
	(a) PEG 500 (b) PEG 20 (e) PEG 200 (d) PEG 1000		(c) Form - 12AA	(d) Form -	
	17. Which is an example of cationic surfactant?		32. Which of the		n be imported without
- 1	(a) Benzalkonium chloride (b) Polysorbate 80	+4	a license?		
	(c) Sodium lauryl sulphate (d) Sorbitol mono oleate  18. The temperature at which the solubility of the		(a) Drugs specifi		
	surfactant is equal to CMC is		(b) Drugs specifi		
	(a) Kraft point (b) Boiling point		for medicinal use		manufacturing and not
	(c) Melting point (d) Both a & b		tor medicinal use		
- 1-	1   Page				
	Porvdone - Iodine.				

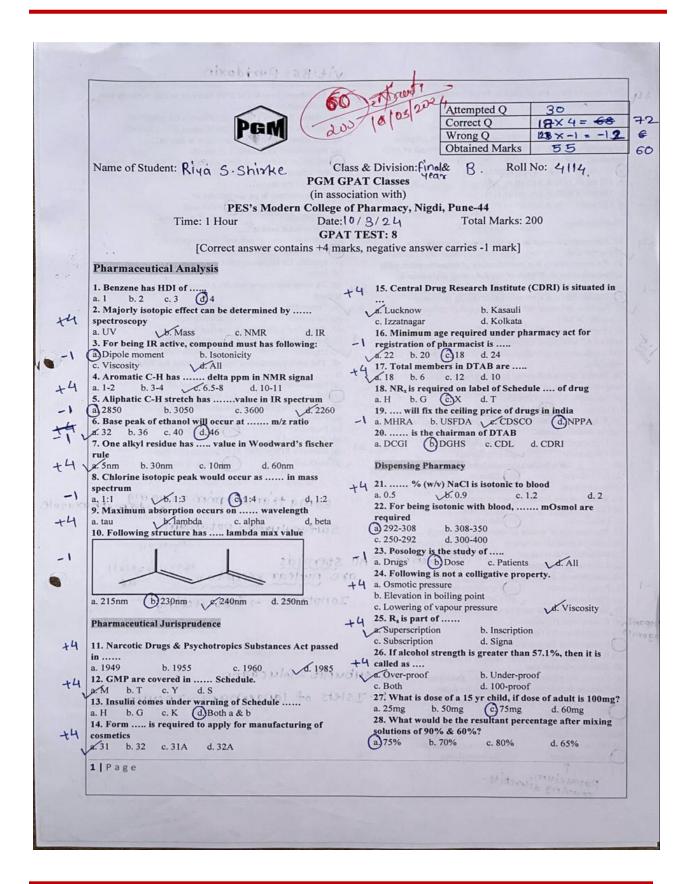












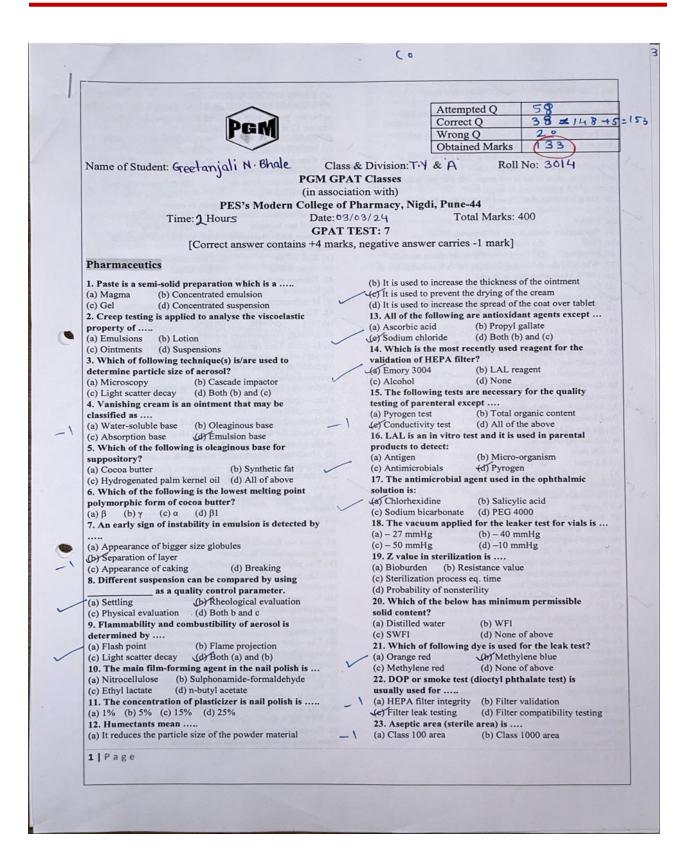




			n lette	
			Attempted Q	82_
		And Amit	Correct Q	46
		The section	Wrong Q	36
		T. y. a. + hour	Obtained Marks	150
Name of Student: Aditi - A-Pathode	Class &		& B Roll	No: . 3074 .
PES's Modern Coll	ege of P	harmacy, Nigdi	, Pune-44	AND RESIDENCE OF THE PARTY.
Time: 3 Hours	Date: /	1	Total Marks:	500
GP.	AT Moc	k Test: 1		
[Correct answer contains +4	4 marks,	negative answer	carries -1 mark]	
The second secon				
1. Paste is a semi-solid preparation which is a			lowing are antioxida	
(a) Magma (b) Concentrated emulsion		(a) Ascorbic acid	700-	
(c) Gel (d) Concentrated suspension		(c) Sodium chlor		
2. Creep testing is applied to analyse the viscoelastic property of	wo.	validation of HI	most recently used	reagent for the
(a) Emulsions (b) Lotion	V	(a) Emory 3004	(b) LAL rea	agent
(c) Ointments (d) Suspensions		(c) Alcohol	(d) None	
3. Which of following technique(s) is/are used to	1	A CONTRACTOR AND A CONT	g tests are necessary	for the quality
determine particle size of aerosol?	1	testing of parent		The description
(a) Microscopy (b) Cascade impactor	K	(a) Pyrogen test		ganic content
(c) Light scatter decay (d) Both (b) and (c) 4. Vanishing cream is an ointment that may be		(c) Conductivity	test (d) All of the vitro test and it is us	
classified as		products to dete		sed in parental
(a) Water-soluble base (b) Oleaginous base	V	(a) Antigen	(b) Mjcro-o	rganism
(a) Absorption base (d) Emulsion base		(c) Antimicrobial	s (d) Pyrogen	
5. Which of the following is oleaginous base for			obial agent used in t	the ophthalmic
suppository?	V	solution is:		
(a) Cocoa butter (b) Synthetic fat		(a) Chlorhexidine	<ul> <li>International Control of the Control o</li></ul>	
(c) Hydrogenated palm kernel oil (&) All of above  6. Which of the following is the lowest melting point	SEPT OF	(c) Sodium bicarl	onate (d) PEG 400 applied for the Jeak	
polymorphic form of cocoa butter?	7	(a) - 27 mmHg	(b) - 40 mm	
(a) β (b) γ (c) α (d) β1		(c) - 50 mmHg	(d) -10 mm	
7. An early sign of instability in emulsion is detected by	44	19. Z value in ste		
	7	(a) Bioburden	(b) Resistance value	
(b) Appearance of bigger size globules (b) Separation of layer		(b) Sterilization p (d) Probability of		
(c) Appearance of caking (d) Breaking			below has minimun	n narmiceible
8. Different suspension can be compared by using	V	solid content?	below has infilling	ii per missible
as a quality control parameter.		(a) Distilled wate	r (b) WFI	
(a) Settling (b) Rheological evaluation		(c) SWFI	(d) None of	
(c) Physical evaluation (d) Both b and c			lowing dye is used fo	
9. Flammability and combustibility of aerosol is	.~	(a) Orange red	(b) Methyle	
determined by (a) Flash point (b) Flame projection		(c) Methylene rec		
(a) Flash point (b) Flame projection (c) Light scatter decay (d) Both (a) and (b)	~	usually used for	ke test (dioctyl phtha	liate test) is
10. The main film-forming agent in the nail polish is			ntegrity (b) Filter va	lidation
(a) Nitrocellulose (b) Sulphonamide-formaldehyde			ing (d) Filter co	
(c) Ethyl lactate (d) n-butyl acetate	- A	23. Aseptic area	(sterile area) is	
11. The concentration of plasticizer is nail polish is	V	(a) Class 100 area		
(a) 1% (b) 5% (c) 15% (d) 25%		(c) Class 10 area	(d) Class 10	0000 area
12. Humectants mean (a) It reduces the particle size of the powder material				
(b) It is used to increase the thickness of the ointment				
(c) It is used to prevent the drying of the cream				
(1) It is used to increase the spread of the coat over tablet				
110200				
1   Page				











32×4=128 +3=13= 133-29 = 104. Attempted Q 601 Correct Q 302=120+5-125 Wrong Q 29 Obtained Marks Name of Student: Vaishnavi P. Atole Class & Division: TY & A Roll No: 3008 PGM GPAT Classes B phorm (in association with) PES's Modern College of Pharmacy, Nigdi, Pune-44 Time: 1 Hours Date:03/03/2024 Total Marks: 400 **GPAT TEST: 7** [Correct answer contains +4 marks, negative answer carries -1 mark] **Pharmaceutics** 1. Paste is a semi-solid preparation which is a ..... (a) Magma It is used to increase the thickness of the ointment (b) Concentrated emulsion (c) Gel (d) Concentrated suspension (c) It is used to prevent the drying of the cream 2. Creep testing is applied to analyse the viscoelastic (d) It is used to increase the spread of the coat over tablet +4 13. All of the following are antioxidant agents except ... (a) Emulsions (b) Lotion (c) Ointments (d) Suspensions (b) Propyl gallate 3. Which of following technique(s) is/are used to (c) Sodium chloride (d) Both (b) and (c) 14. Which is the most recently used reagent for the determine particle size of aerosol? (a) Microscopy validation of HEPA filter? (b) Cascade impactor (c) Light scatter decay (a) Emory 3004 (d) Both (b) and (c) 4. Vanishing cream is an ointment that may be (b) LAL reagent (c) Alcohol - 1 15. The following tests are necessary for the quality (a) Water-soluble base testing of parenteral except . (b) Oleaginous base (Absorption base (a) Pyrogen test +4 5. Which of the following is oleaginous base for Total organic content (c) Conductivity test +4 16. LAL is an in vitro test and it is used in parental Cocoa butter (c) Hydrogenated palm kernel oil (d) All of above (a) Antigen 6. Which of the following is the lowest melting point (b) Micro-organism (c) Antimicrobials polymorphic form of cocoa butter? 17. The antimicrobial agent used in the ophthalmic (a)  $\beta$  (b)  $\gamma$  (c)  $\alpha$  (d)  $\beta$ 1 7. An early sign of instability in emulsion is detected by (a) Chlorhexidine (c) Sodium bicarbonate (a) Appearance of bigger size globules (b) Salicylic acid 18. The vacuum applied for the leaker test for vials is ... (b) Separation of layer (c) Appearance of caking 8. Different suspension can be compared by using (c) - 50 mmHg (b) - 40 mmHg19. Z value in sterilization is .... (d) -10 mmHg as a quality control parameter. (a) Bioburden (b) Resistance value (c) Physical evaluation (d) Both b and c (c) Sterilization process eq. time (b) Rheological evaluation 9. Flammability and combustibility of aerosol is (d) Probability of nonsterility -1 20. Which of the below has minimum permissible (a) Flash point (c) Light scatter decay (d) Both (a) and (b) (b) Flame projection (a) Distilled water 10. The main film-forming agent in the nail polish is ... VOYSWFI + 4 21. Which of following dye is used for the leak test? (b) WFI (b) Sulphonamide-formaldehyde 11. The concentration of plasticizer is nail polish is ... (c) Methylene red (b) Methylene blue + 4 22. DOP or smoke test (dioctyl phthalate test) is 12. Humectants mean .... (a) It reduces the particle size of the powder material Va) HEPA filter integrity (c) Filter leak testing (b) Filter validation 23. Aseptic area (sterile area) is .... (d) Filter compatibility testing (b) Class 1000 area





	Attempted Q 90
	Correct Q BAX4+5
PGM	Wrong Q 35
	Obtained Marks
Nome of State of A ' olsale of	
	lass & Division: 10% B Roll No: 4118  GPAT Classes
	ociation with)
	of Pharmacy, Nigdi, Pune-44
	3/2/24 Total Marks: 400
	T TEST: 7
[Correct answer contains +4 m	arks, negative answer carries -1 mark]
Pharmaceutics	
1 Posts is a seed with the state of the stat	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)
Paste is a semi-solid preparation which is a  (a) Magma     (b) Concentrated emulsion	(b) It is used to increase the thickness of the ointment
(c) Gel (d) Concentrated emusion	(c) It is used to prevent the drying of the cream (d) It is used to increase the spread of the coat over tablet
2. Creep testing is applied to analyse the viscoelastic	13. All of the following are antioxidant agents except
property of	(a) Ascorbic acid (b) Propyl gallate
(a) Emulsions (b) Lotion	(c) Sodium chloride (d) Both (b) and (c)
(a) Ointments (d) Suspensions	14. Which is the most recently used reagent for the
3. Which of following technique(s) is/are used to	validation of HEPA filter?
determine particle size of aerosol? (a) Microscopy (b) Cascade impactor	(a) Emory 3004 (b) LAL reagent
(c) Light scatter decay (d) Both (b) and (c)	(c) Alcohol (d) None  15. The following tests are necessary for the quality
4. Vanishing cream is an ointment that may be	testing of parenteral except
classified as	(a) Pyrogen test (b) Total organic content
(a) Water-soluble base (b) Oleaginous base	(c) Conductivity test (d) All of the above
(e) Absorption base (d) Emulsion base	16. LAL is an in vitro test and it is used in parental
5. Which of the following is oleaginous base for	products to detect:
suppository? (a) Cocoa butter (b) Synthetic fat	(a) Antigen (b) Micro-organism
(a) Cocoa butter (b) Synthetic fat (c) Hydrogenated palm kernel oil (d) All of above	(c) Antimicrobials (d) Pyrogen  17. The antimicrobial agent used in the ophthalmic
6. Which of the following is the lowest melting point	solution is:
polymorphic form of cocoa butter?	(a) Chlorhexidine (b) Salicylic acid
(a) β (b) γ (c) α (d) β1	(c) Sodium bicarbonate (d) PEG 4000
7. An early sign of instability in emulsion is detected by	18. The vacuum applied for the leaker test for vials is
(a) A	(a) - 27 mmHg (b) - 40 mmHg
(a) Appearance of bigger size globules (b) Separation of layer	(c) - 50 mmHg (d) -10 mmHg
(c) Appearance of caking (d) Breaking	(a) Bioburden (b) Resistance value
8. Different suspension can be compared by using	(c) Sterilization process eq. time
as a quality control parameter.	(d) Probability of nonsterility
(a) Settling (b) Rheological evaluation	20. Which of the below has minimum permissible
(c) Physical evaluation (d) Both b and c	solid content?
9. Flammability and combustibility of aerosol is	(a) Distilled water (b) WFI
determined by (a) Flash point (b) Flame projection	(c) SWFI (d) None of above
(c) Light scatter decay (d) Both (a) and (b)	(a) Orange red (b) Methylene blue
10. The main film-forming agent in the nail polish is	(c) Methylene red (d) None of above
(a) Nitrocellulose (b) Sulphonamide-formaldehyde	22. DOP or smoke test (dioctyl phthalate test) is
(c) Ethyl lactate (d) n-butyl acetate	usually used for
11. The concentration of plasticizer is nail polish is	(a) HEPA filter integrity (b) Filter validation
(a) 1% (b) 5% (c) 15% (d) 25%	(c) Filter leak testing (d) Filter compatibility testing
12. Humectants mean (a) It reduces the particle size of the powder material	23. Aseptic area (sterile area) is
(a) it reduces the particle size of the powder material	(a) Class 100 area (b) Class 1000 area
1   Page	

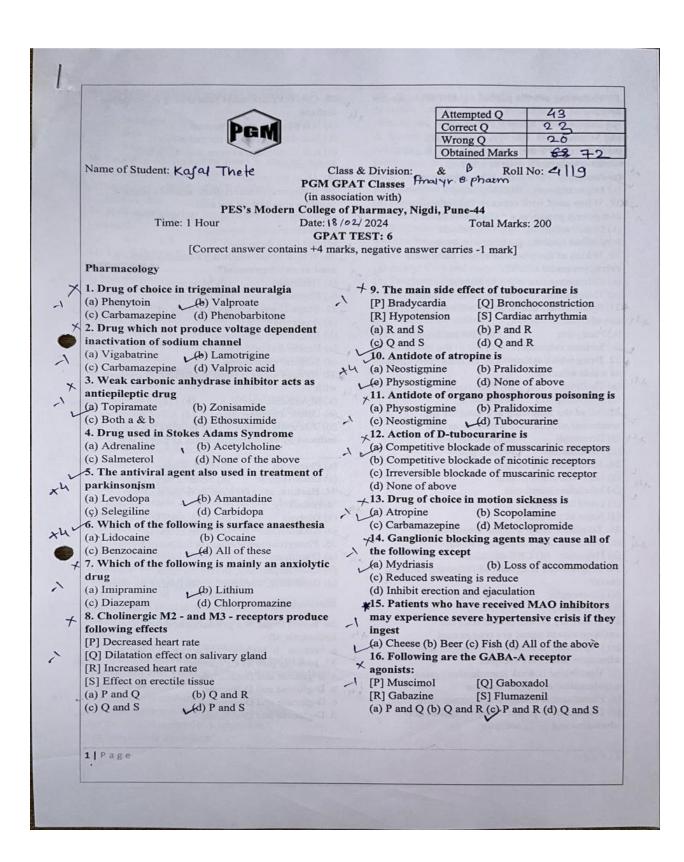




	Attempted O _ 90
	Correct Q (54)×4+
PGM	Wrong Q 35
	Obtained Marks
Y T . A 'Y-b.	
	Class & Division: First B Roll No: 4118
	GFAT Classes
	sociation with)
	e of Pharmacy, Nigdi, Pune-44
	e: 3/2/24 Total Marks: 400
	AT TEST: 7
[Correct answer contains +4 i	narks, negative answer carries -1 mark]
Pharmaceutics	
A STATE OF THE PARTY OF THE PAR	
1. Paste is a semi-solid preparation which is a	(b) It is used to increase the thickness of the ointment
(a) Magma (b) Concentrated emulsion	(c) It is used to prevent the drying of the cream
(c) Gel (d) Concentrated suspension	(d) It is used to increase the spread of the coat over tablet
2. Creep testing is applied to analyse the viscoelastic property of	(a) Ascorbic acid (b) Propyl gallate
(a) Emulsions (b) Lotion	(c) Sodium chloride (d) Both (b) and (c)
(a) Ointments (d) Suspensions	14. Which is the most recently used reagent for the
3. Which of following technique(s) is/are used to	validation of HEPA filter?
determine particle size of aerosol?	(a) Emory 3004 (b) LAL reagent
(a) Microscopy (b) Cascade impactor	(c) Alcohol (d) None
(c) Light scatter decay (d) Both (b) and (c)  4. Vanishing cream is an ointment that may be	15. The following tests are necessary for the quality testing of parenteral except
classified as	(a) Pyrogen test (b) Total organic content
(a) Water-soluble base (b) Oleaginous base	(c) Conductivity test (d) All of the above
(e) Absorption base (d) Emulsion base	16. LAL is an in vitro test and it is used in parental
5. Which of the following is oleaginous base for	products to detect:
suppository?	(a) Antigen (b) Micro-organism
(a) Cocoa butter (b) Synthetic fat	(c) Antimicrobials (d) Pyrogen
(c) Hydrogenated palm kernel oil (d) All of above  6. Which of the following is the lowest melting point	17. The antimicrobial agent used in the ophthalmic solution is:
polymorphic form of cocoa butter?	(a) Chlorhexidine (b) Salicylic acid
(a) β (b) γ (c) α (d) β1	(c) Sodium bicarbonate (d) PEG 4000
7. An early sign of instability in emulsion is detected by	18. The vacuum applied for the leaker test for vials is
	(a) - 27 mmHg (b) - 40 mmHg
(a) Appearance of bigger size globules	(c) - 50 mmHg (d) -10 mmHg
(b) Separation of layer (c) Appearance of caking (d) Breaking	19. Z value in sterilization is
8. Different suspension can be compared by using	(a) Bioburden (b) Resistance value (c) Sterilization process eq. time
as a quality control parameter.	(d) Probability of nonsterility
(a) Settling (b) Rheological evaluation	20. Which of the below has minimum permissible
(c) Physical evaluation (d) Both b and c	solid content?
9. Flammability and combustibility of aerosol is	(a) Distilled water (b) WFI
determined by	(c) SWFI (d) None of above
(a) Flash point (b) Flame projection (c) Light scatter decay (d) Both (a) and (b)	21. Which of following dye is used for the leak test?
(c) Light scatter decay (d) Both (a) and (b)  10. The main film-forming agent in the nail polish is	(a) Orange red (b) Methylene blue (c) Methylene red (d) None of above
(a) Nitrocellulose (b) Sulphonamide-formaldehyde	(c) Methylene red (d) None of above 22. DOP or smoke test (dioctyl phthalate test) is
(c) Ethyl lactate (d) n-butyl acetate	usually used for
11. The concentration of plasticizer is nail polish is	(a) HEPA filter integrity (b) Filter validation
(a) 1% (b) 5% (c) 15% (d) 25%	(c) Filter leak testing (d) Filter compatibility testing
12. Humectants mean	23. Aseptic area (sterile area) is
(a) It reduces the particle size of the powder material	(a) Class 100 area (b) Class 1000 area
1   Page	











R PROPERTY.				mpted Q	29
	PGM			ect Q	17 ×4 = 68
				ng Q	56
	5 1 11:22 01 12			ined Marks	
	PGM (in ass PES's Modern College ae: 1 Hour Date: V	GPAT sociation of Ph 8/02/ AT TE	2024 ST: 6	ne-44 Total Marks	No: 3014 s: 200
1. Drug of choice	in trigeminal neuralgia		9. The main side e	ffect of tubo	curarine is
(a) Phenytoin	(b) Valproate	27	[P] Bradycardia		hoconstriction
(c) Carbamazepin			[R] Hypotension		ac arrhythmia
	t produce voltage dependent	片上	(a) R and S	(b) P and	A STATE OF THE PARTY OF THE PAR
inactivation of so			(c) Q and S	(d) Q and	R
(a) Vigabatrine	(b) Lamotrigine	. 1.	10. Antidote of atr		
(c) Carbamazepin		+4	(a) Neostigmine	(b) Pralide	
	anhydrase inhibitor acts as		(e) Physostigmine	(d) None	
antiepileptic drug			11. Antidote of org		
(a) Topiramate (c) Both a & b	(b) Zonisamide	+4	(a) Physostigmine (c) Neostigmine	(b) Pralide (d) Tuboc	
	(d) Ethosuximide tokes Adams Syndrome		12. Action of D-tu		
(a) Adrenaline	(b) Acetylcholine	1	(a) Competitive blo		
(c) Salmeterol	(d) None of the above		(b) Competitive blo		
	gent also used in treatment of		(c) Irreversible bloc		Company of the Compan
parkinsonism			(d) None of above		
(a) Levodopa	(b) Amantadine		13. Drug of choice	in motion si	ckness is
(c) Selegiline	(d) Carbidopa		(a) Atropine	(b) Scopo	
	ollowing is surface anaesthesia		(c) Carbamazepine		lopromide
(a) Lidocaine	(b) Cocaine		14. Ganglionic blo		may cause all o
(c) Benzocaine	(d) All of these	1	the following exce		of accommodati
drug	ollowing is mainly an anxiolytic	1.	<ul><li>(a) Mydriasis</li><li>(c) Reduced sweati</li></ul>		s of accommodati
(a) Imipramine	(b) Lithium		(d) Inhibit erection		on
(c) Diazepam	(d) Chlorpromazine		15. Patients who h	The state of the s	
	2 - and M3 - receptors produce		may experience se		
following effects	The second secon		ingest*		
[P] Decreased hea			(a) Cheese (b) Been		
F	ect on salivary gland		16. Following are	the GABA-A	receptor
[R] Increased hear		6	agonists: [P] Muscimol	[Q] Gabo	vadal
[S] Effect on erect	(b) Q and R		[R] Gabazine	[S] Fluma	
(c) Q and S	(d) P and S		(a) P and Q (b) Q a		
1   Page	(d) I and 5		(4) 2 414 (6) (2 4		a re(a) Q and b





	Attempted Q 19
hati	Correct Q 😽 14
PGM	Wrong Q 5
	Obtained Marks 55
PGM (in ass PES's Modern College Time: 1 Hour Date: 1 GPA [Correct answer contains +4 m Pharmacology 1. Drug of choice in trigeminal neuralgia	Class & Division: Fired& B. Roll No: 4114  GPAT Classes sociation with) to of Pharmacy, Nigdi, Pune-44  8/2/2024 Total Marks: 200  AT TEST: 6 tarks, negative answer carries -1 mark]  9. The main side effect of tubocurarine is
(a) Phenytoin (b) Valproate	[P] Bradycardia [Q] Bronchoconstriction
(c) Carbamazepine (d) Phenobarbitone	[R] Hypotension [S] Cardiac arrhythmia
2. Drug which not produce voltage dependent	(a) R and S (b) P and R
inactivation of sodium channel	(c) Q and S (d) Q and R
(c) Carbamazepine (d) Valproic acid	10. Antidote of atropine is (a) Neostigmine (b) Pralidoxime
(c) Carbamazepine (d) Valproic acid 3. Weak carbonic anhydrase inhibitor acts as	(a) Neostigmine (b) Pralidoxime (c) Physostigmine (d) None of above
antiepileptic drug	11. Antidote of organo phosphorous poisoning
(a) Topiramate (b) Zonisamide	(a) Physicationing (b) Prolidovimo
(d) Ethosuximide	(c) Neostigmine (d) Tubocurarine
4. Drug used in Stokes Adams Syndrome	12. Action of D-tubocurarine is
(a) Adrenaline (b) Acetylcholine	(a) Competitive blockade of musscarinic receptors
(c) Salmeterol (d) None of the above	(b) Competitive blockade of nicotinic receptors
5. The antiviral agent also used in treatment of parkinsonism	(c) Irreversible blockade of muscarinic receptor (d) None of above
(a) Levodopa (b) Amantadine	13. Drug of choice in motion sickness is
(c) Selegiline (d) Carbidopa	(a) Atropine (b) Scopolamine
6. Which of the following is surface anaesthesia	(c) Carbamazepine (d) Metoclopromide
(a) Lidocaine (b) Cocaine (c) Benzocaine (d) All of these	<ol> <li>Ganglionic blocking agents may cause all of the following except</li> </ol>
7. Which of the following is mainly an anxiolytic	△ (a) Mydriasis · (b) Loss of accommodation
drug	(c) Reduced sweating is reduce
(a) Imipramine (b) Lithium	(d) Inhibit erection and ejaculation
(c) Diazepam (d) Chlorpromazine	15. Patients who have received MAO inhibitors
8. Cholinergic M2 - and M3 - receptors produce	may experience severe hypertensive crisis if the
following effects	ingest
[P] Decreased heart rate	(a) Cheese (b) Beer (c) Fish (d) All of the above
[Q] Dilatation effect on salivary gland	16. Following are the GABA-A receptor
[R] Increased heart rate [S] Effect on erectile tissue	agonists: [P] Muscimol [Q] Gaboxadol
(a) P and Q (b) Q and R	[R] Gabazine [S] Flumazenil
(c) Q and S (d) P and S	(a) P and Q (b) Q and R (c) P and R (d) Q and S
V and the second of	(a) v and v (b) v and v (b) v and v (c) v and s
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				Attempted Q	32
	PGM			Correct Q	18 ×4 = 73
				Wrong Q	14x-1=-11
			Co. I	Obtained Marks	S
Name of Student:	siddhi sudhir Waghule (	Class &	Division: Yr	& B Roll 1	No: 4122
		GPAT	Classes		
	(in ass	sociatio	on with)		
	PES's Modern College				
Time	e: 1 Hour Date: 1			Total Marks:	: 200
		AT TE			
	[Correct answer contains +4 n	narks, 1	negative answer	r carries -1 mark]	
Pharmacology					
1 Drug of choice i	n trigeminal neuralgia		0 The main	side effect of tuboc	urarine is
(a) Phenytoin	(b) Valproate		[P] Bradycard		noconstriction
(c) Carbamazepine			[R] Hypotens		arrhythmia
	produce voltage dependent	-1		(b) P and R	
inactivation of sod			(a) R and S (c) Q and S	(d) Q and I	
(a) Vigabatrine	(b) Lamotrigine	1		of atropine is	South State Line 21
(c) Carbamazepine			(a) Neostigmi		vime
THE RESIDENCE AND PROPERTY OF THE PROPERTY OF	anhydrase inhibitor acts as	/	(a) Neostigini		
antiepileptic drug	그리 하는데 몇번 시간에 가는 사람들은 맛이 되었습니다. 그리고 그리고 있다.			of organo phospho	
(a) Topiramate	(b) Zonisamide		(a) Physostign		
(c) Both a & b	(d) Ethosuximide	V	(c) Neostigmi		
	okes Adams Syndrome			D-tubocurarine is	rarme
(a) Adrenaline	(b) Acetylcholine			ve blockade of muss	carinic recentors
(c) Salmeterol	(d) None of the above			ve blockade of nico	
	gent also used in treatment of			e blockade of musc	
parkinsonism	, and the man of the m	1	(d) None of al		arimo receptor
(a) Levodopa	Ab) Amantadine			hoice in motion sic	kness is
(c) Selegiline	(d) Carbidopa	1	(a) Atropine	(b) Scopola	
	llowing is surface anaesthesia	~	(c) Carbamaz		
(a) Lidocaine	(b) Cocaine			ic blocking agents	
(c) Benzocaine	(d) All of these		the following		may cause an or
	llowing is mainly an anxiolytic		(a) Mydriasis		of accommodatio
drug	and the same of the same of the	11.		weating is reduce	or accommodatio
(a) Imipramine	(b) Lithium	*		ection and ejaculatio	n
(d) Impramme (e) Diazepam	(d) Chlorpromazine	1		who have received	
	- and M3 - receptors produce			ice severe hyperter	
following effects	Product	,	ingest	oc. c. o nj per ter	crisis ir the
[P] Decreased heart	trate	-1		Beer (e) Fish (d) A	Il of the above
[Q] Dilatation effect		1		g are the GABA-A	
[R] Increased heart			agonists:	,	
[S] Effect on erecti			[P] Muscimol	[Q] Gabox	adol
(a) P and Q	(b) Q and R		[R] Gabazine	[S] Flumaz	
(c) Q and S	(d) P and S			) Q and R (c) P and	
1   Page					



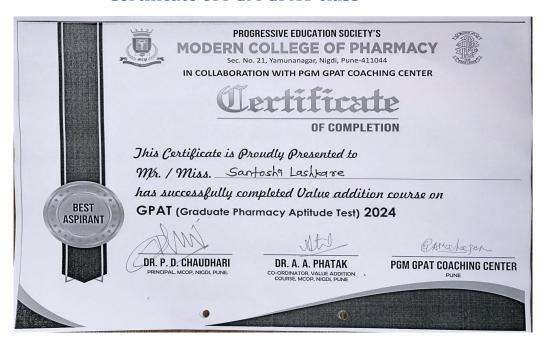


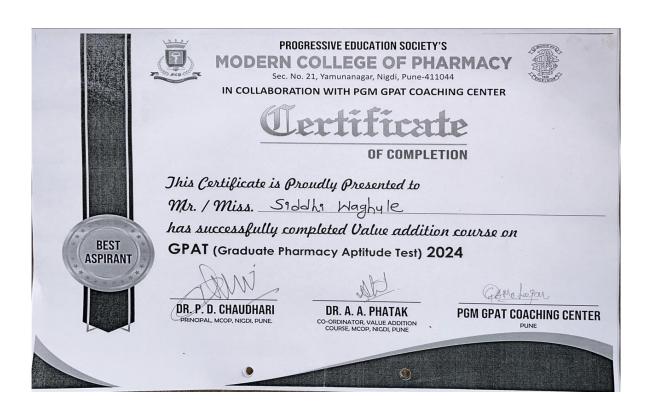
			Attempted Q	30
	PeM		Correct Q	17×4 = 68
			Wrong Q	13 ⇒ 68-13.
			Obtained Marks	55
. Time	PGM C (in asso PES's Modern College 1 Hour Date: 18 GPA [Correct answer contains +4 mages]	T TEST: 6	i, Pune-44 Total Mark	1 No: 3008
1. Drug of choice i	n trigeminal neuralgia	-\ 9. The main	side effect of tube	
(a) Phenytoin	(b) Valproate	[P] Bradycard		choconstriction
(c) Carbamazepine	(d) Phenobarbitone	[R] Hypotens		ac arrhythmia
	produce voltage dependent	(a) R and S	(b) P and	
inactivation of sod		(c) Q and S +4 10. Antidote	(d) Q and	K
<ul><li>(a) Vigabatrine</li><li>(c) Carbamazepine</li></ul>	(b) Lamotrigine (d) Valproic acid	(a) Neostigmi		loxime
	anhydrase inhibitor acts as	(c) Physostign		
antiepileptic drug	The second secon	+4 11. Antidote		
(a) Topiramate	(b) Zonisamide	(a) Physostign		
(c) Both a & b	(d) Ethosuximide	(c) Neostigmi	ne (d) Tuboo	curarine
	okes Adams Syndrome		D-tubocurarine i	
(a) Adrenaline	(b) Acetylcholine		ve blockade of mu	
(c) Salmeterol	(d) None of the above		ve blockade of nic	
5. The antiviral ag	ent also used in treatment of	(d) None of al	e blockade of mus	carinic receptor
(a) Levodopa	(b) Amantadine		hoice in motion s	ickness is
(c) Selegiline	(d) Carbidopa	(a) Atropine	(b) Scope	
	lowing is surface anaesthesia	(c) Carbamaz		clopromide
(a) Lidocaine	(b) Cocaine	14. Ganglion	ic blocking agent	s may cause all o
(c) Benzocaine	(A) All of these	the following	except	
	lowing is mainly an anxiolytic	(a) Mydriasis		s of accommodati
drug	(b) I ithium		weating is reduce	New Argus
(a) Imipramine  (a) Diazepam	(b) Lithium (d) Chlorpromazine	(d) Inhibit ere	ction and ejaculati	
	- and M3 - receptors produce			ensive crisis if the
following effects	The same and the s	ingest	and and any period	The course of the
[P] Decreased heart	rate	(a) Cheese (b)	Beer (c) Fish (d)	All of the above
[Q] Dilatation effec		-\ 16. Following	are the GABA-A	A receptor
[R] Increased heart		agonists:	A PARTIE A	a lateral officers to
[S] Effect on erectil		[P] Muscimol		
(a) P and Q	(b) Q and R	[R] Gabazine	[S] Fluma	
(c) Q and S	(d) P and S	(a) P and Q (b	) Ø and R (c) P ar	nd R (d) Q and S





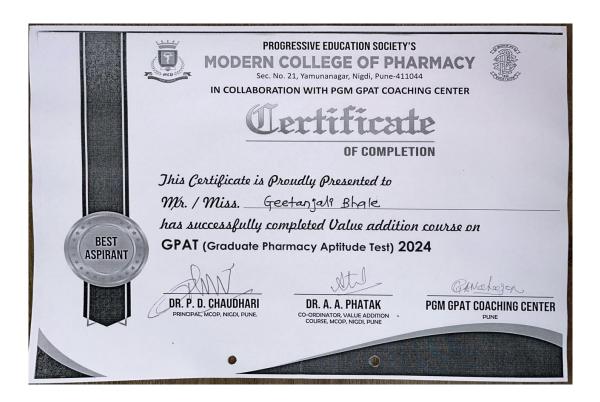
## **Certificate of PGM GPAT class**

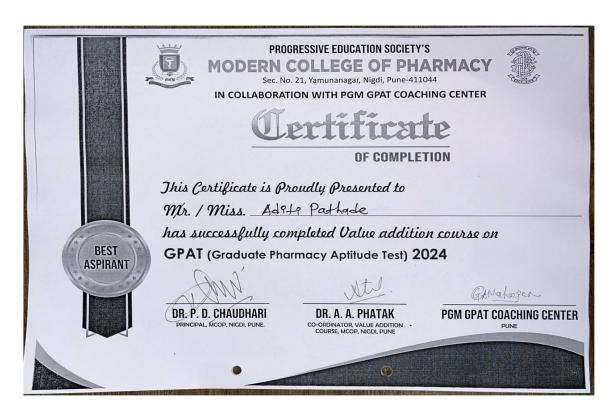








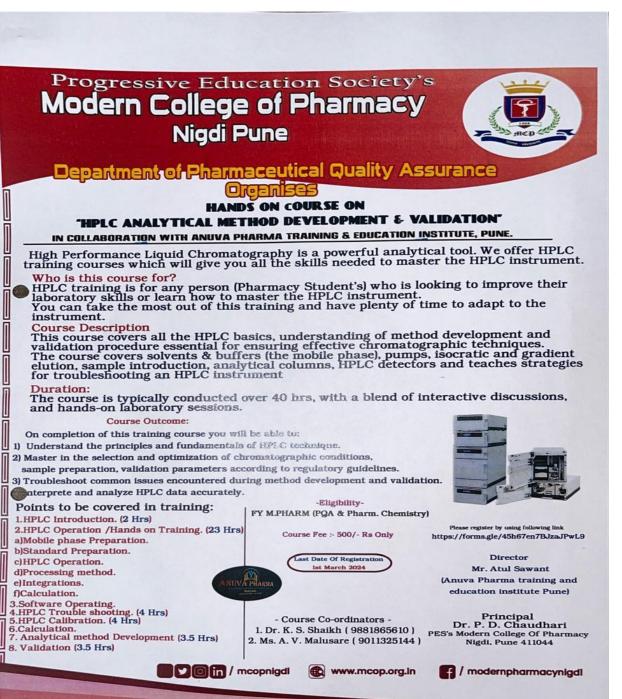








# Brochure of HPLC Analytical method development and validation







# List of students of HPLC Analytical method development and validation



### Progressive Education Society's

## MODERN COLLEGE OF PHARMACY

Accredited by 'NAAC'

'Best College Award' by Savitribai Phule Pune University

Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi,
Directorate of Technical Education, Mumbai (MS), Permanently affiliated to
SavItrIbal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: HPLC Analytical method development and validation

Date: 09/03/2024 - 28/04/2024 Course Code: NA

Course Duration: 40 hrs

#### List of Students

Sr. No	Name of Student
1	Aishwarya Sunil Pandit
2	Yogita Ganpat Dighe
3	Nagesh Wadikar
4	Sakshi Dhamal
5	Sanket Rajendra Bora
6	Hardika Patel
7	Smita Madhav Warade
8	Nikita Satyawan salunke
9	Shweta Rajendra Jagtap
10	Nitin Sham Pawar
11	Vedika Narendrasing Salame
12	Mukund Appasaheb Salunke
13	Satyajit Ram Phalake
14	Sargar Lalit Rajaram
15	Shejal Kailas Wakade
16	Anuja Haridas Pachphule
17	Tushar Kshirsagar
18	Pradnya Rajesh Waman
19	Suraj Rajendra Lobhe
20	Dhanashree Santosh Rathi
21	Pratiksha Laxman Raut
22	Varsha Sunil Pawar
23	Damini Pradeep Shinde
24	Rutuja Satish Sonawane
25	Komal Jotiram Doifode
26	Hemant Vijay Bhoi

College of Allege

Page 1 of 1





# **Curriculum of HPLC Analytical method development and validation**

# Report on Hands-on Course in HPLC Analytical Method Development and Validation

Conducted by: QA Department of PES Modern College of Pharmacy, Nigdi in collaboration with Anuva Pharma.

Participants: F.Y and S.Y M. Pharm Students (Total-26) Duration:9<sup>th</sup> March 2024 – 28<sup>th</sup> April 2024 (40 hrs.)

Schedule: Saturday and Sunday

Training Faculty: Mr. Atul Sawant (Director, Anuva Pharma Training and Education Institute)

#### **Course Overview**

This hands-on training course aimed to provide F.Y and S.Y M.Pharm students with practical experience in High-Performance Liquid Chromatography (HPLC), covering essential skills in analytical method development and validation for pharmaceutical applications.

#### **Learning Objectives**

- 1. Understand HPLC Principles
  - Grasp fundamental concepts, including separation techniques, system components, and chromatographic conditions.
- 2. Gain Practical Skills in HPLC Operation
  - Acquire hands-on skills in system setup, sample preparation, and operation of the HPLC instrument.
- 3. Develop Analytical Method Competency
  - Learn to develop and optimize HPLC methods, including selection of mobile phases, columns, and other method parameters.
- 4. Master Data Integration and Analysis
  - Understand techniques for integrating chromatographic data, identifying peaks, and quantifying analytes accurately.
- 5. Learn Validation Procedures
  - Understand validation parameters such as accuracy, precision, specificity, and robustness and learn how to apply them to method validation.
- 6. Perform Calibration and Troubleshooting







 Gain skills in calibrating HPLC instruments and troubleshooting common issues to ensure accuracy and reliability of results.

## Training Schedule and Content (40 hrs.)

#### 1. 9th March 2024 (4 hrs.) - Introduction to HPLC

· Overview of HPLC principles, separation mechanisms, detectors, and column selection.

### 2. 10th March 2024 (7 hrs.) - Hands-on Training of HPLC

Practical exposure to system setup and HPLC operation, including basic data analysis.

#### 3. 23rd March 2024 (3 hrs.) - Sample Preparation and Training

• Training on maintaining sample integrity through proper sample preparation methods.

### 4. 6th April 2024 (3 hrs.) - Individual HPLC Training with Sample Preparation

 One-on-one guidance for independent operation, focusing on sample handling and method precision.

#### 5. 7th April 2024 (7 hrs.) - Doubt Clearance

 Open session to address any questions on HPLC operation, data handling, and troubleshooting.

#### 6. 13th April 2024 (3 hrs.) - Integration of Data

· Techniques for chromatogram analysis, peak identification, and quantification.

#### 7. 14th April 2024 and 27th April 2024(10 hrs.) - Analytical Method Validation

 Training on method validation parameters and documentation standards for regulatory compliance.

#### 8. 28th April 2024 (7 hrs.) - Calibration of HPLC and Troubleshooting

Calibration techniques and troubleshooting strategies for reliable data generation.

#### 9. 4th May 2024 - HPLC Course Exam

This session marked the culmination of the training program, where participants
underwent a comprehensive exam designed to evaluate their theoretical understanding
and practical proficiency in HPLC.

### 10. 20th July 2024 - Certificate Distribution

 After successfully completing the course and passing the exam, participants will be awarded certificates of completion during a formal distribution ceremony.







### **Learning Outcomes**

By the end of the course, participants:

## 1. Gained a Comprehensive Understanding of HPLC Principles

 Students demonstrated a solid grasp of HPLC fundamentals, system components, and separation mechanisms.

## 2. Acquired Proficiency in HPLC System Operation

 Participants successfully set up and operated the HPLC instrument, handling samples and performing data acquisition independently.

## 3. Developed Method Optimization Skills

 Students learned to adjust chromatographic conditions effectively to develop robust analytical methods.

## 4. Enhanced Data Interpretation Skills

 Participants became proficient in analyzing chromatograms, accurately identifying and quantifying peaks.

### 5. Achieved Competence in Method Validation

 Students completed validation exercises, ensuring methods met accuracy, precision, and other regulatory standards.

## 6. Mastered Calibration and Troubleshooting

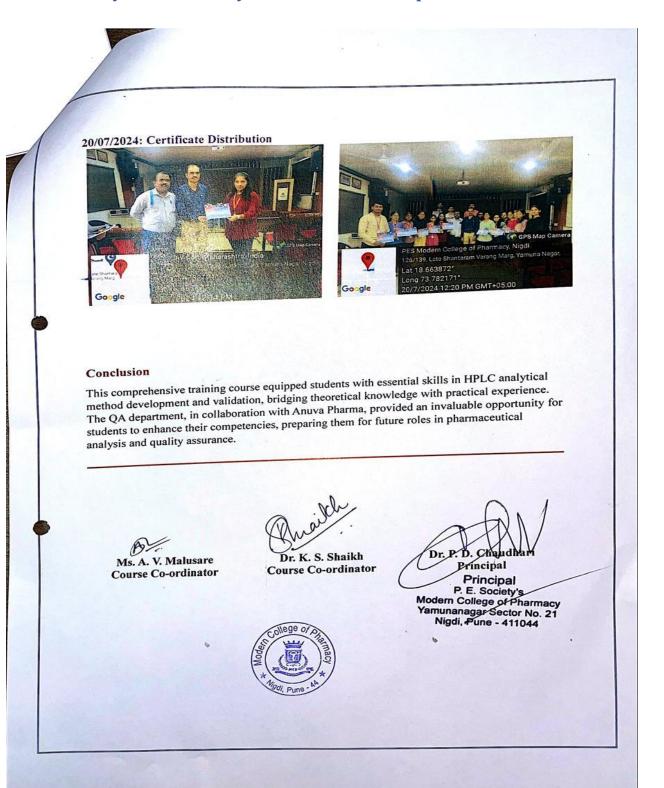
 Participants demonstrated the ability to calibrate the HPLC system and troubleshoot common operational issues effectively.







# Summary of HPLC Analytical method development and validation







# Attendance of HPLC Analytical method development and validation



P. E. Society's Modern College of Pharmacy Nigdi-44

# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 9 | 3 | 2024

Sr. No.	Name of Student	Contact No.	Sign of Student
1.	Aishwarya Sunil Pandit	7588240530	Havelit.
2.	Yogita Ganpat Dighe	8459493397	27374
3.	Nagesh Wadikar	6360985873	AND
4.	Sakshi Dhamal	7666856486	- flymony
5.	Sanket Rajendra Bora	7972504988	
6.	Hardika Patel	9168975751	Batel
7.	Smita Madhav Warade	8600069586	amarade
8.	Nikita Satyawan salunke	9011558104	Nik
9.	Shweta Rajendra Jagtap	8637780559	Rostor
10.	Nitin Sham Pawar	8552806017	Hauses
11.	Vedika Narendrasing Salame	8788260845	Dalame
12.	Mukund Appasaheb Salunke	9307400542	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
13.	Satyajit Ram Phalake	9527021081	Ralake
14.	Sargar Lalit Rajaram	9552012054	
15.	Shejal KailasWakade	9423802972	Shejo
16.	Anuja Haridas Pachphule	7767889150	anyla
17.	Tushar Kshirsagar	9527542506	
18.	Pradnya Rajesh Waman	8421391074	Manage
19.	Suraj Rajendra Lobhe	7264949691	divin
20.	Dhanashree Santosh Rathi	8605204917	
21.	Pratiksha Laxman Raut	7448005083	<b>并</b> 自己,
22.	Varsha Sunil Pawar	9607454496	O CANADA
23.	Damini Pradeep Shinde	8308008759	
24.	Rutuja Satish Sonawane	8007486864	
25.	Komal Jotiram Doifode	7821970873	Beigney
26.	Hemant Vijay Bhoi	7498292330	( whin







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 10/3/2024

Sr. No.	Name of Student	Contact No.	Sign of Student
1.	Aishwarya Sunil Pandit	7588240530	Rudit.
2.	Yogita Ganpat Dighe	8459493397	POS
3.	Nagesh Wadikar	6360985873	CART
4.	Sakshi Dhamal	7666856486	Houndy.
5.	Sanket Rajendra Bora	7972504988	
6.	Hardika Patel	9168975751	(Hately
7.	Smita Madhav Warade	8600069586	awarace.
8.	Nikita Satyawan salunke	9011558104	NIE
9.	Shweta Rajendra Jagtap	8637780559	Ragina
10.	Nitin Sham Pawar	8552806017	Thurst
11.	Vedika Narendrasing Salame	8788260845	Alance
12.	Mukund Appasaheb Salunke	9307400542	W
13.	Satyajit Ram Phalake	9527021081	Falalce
14.	Sargar Lalit Rajaram	9552012054	
15.	Shejal KailasWakade	9423802972	allegis
16.	Anuja Haridas Pachphule	7767889150	Benula_
17.	Tushar Kshirsagar	9527542506	
18.	Pradnya Rajesh Waman	8421391074	-Rango
19.	Suraj Rajendra Lobhe	7264949691	Aud -
20.	Dhanashree Santosh Rathi	8605204917	- Maria
21.	Pratiksha Laxman Raut	7448005083	
22.	Varsha Sunil Pawar	9607454496	
23.	Damini Pradeep Shinde	8308008759	
24.	Rutuja Satish Sonawane	8007486864	
25.	Komal Jotiram Doifode	7821970873	Brigas,
26.	Hemant Vijay Bhoi	7498292330	(Oghi







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 23/3/24

Sr. No.	Name of Student	Contact No.	Sign of Student
1.	Aishwarya Sunil Pandit	7588240530	Flandit.
2.	Yogita Ganpat Dighe	8459493397	Plant,
3.	Nagesh Wadikar	6360985873	and
4.	Sakshi Dhamal	7666856486	Hamy-
5.	Sanket Rajendra Bora	7972504988	In all makes
6.	Hardika Patel	9168975751	Antol.
7.	Smita Madhav Warade	8600069586	an arack
8.	Nikita Satyawan salunke	9011558104	NIH
9.	Shweta Rajendra Jagtap	8637780559	@agest
10.	Nitin Sham Pawar	8552806017	Namage
11.	Vedika Narendrasing Salame	8788260845	Bulanc
12.	Mukund Appasaheb Salunke	9307400542	169
13.	Satyajit Ram Phalake	9527021081	Salate
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15.	Shejal KailasWakade	9423802972	Oliga
16.	Anuja Haridas Pachphule	7767889150	Anuja
17.	Tushar Kshirsagar	9527542506	
18.	Pradnya Rajesh Waman	8421391074	* amo
19.	Suraj Rajendra Lobhe	7264949691	Au
20.	Dhanashree Santosh Rathi	8605204917	
21.	Pratiksha Laxman Raut	7448005083	
22.	Varsha Sunil Pawar	9607454496	
23.	Damini Pradeep Shinde	8308008759	
24.	Rutuja Satish Sonawane	8007486864	^
25.	Komal Jotiram Doifode	7821970873	Dium,
26.	Hemant Vijay Bhoi	7498292330	and in







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 6|4|24

Sr. No.	Name of Student	Contact No.	Sign of Student
1.	Aishwarya Sunil Pandit	7588240530	Hundid.
2.	Yogita Ganpat Dighe	8459493397	Mary
3.	Nagesh Wadikar	6360985873	My
4.	Sakshi Dhamal	7666856486	- thamas
5.	Sanket Rajendra Bora	7972504988	
6.	Hardika Patel	9168975751	(Hotel
7.	Smita Madhav Warade	8600069586	awasade
8.	Nikita Satyawan salunke	9011558104	Nily
9.	Shweta Rajendra Jagtap	8637780559	Rost
10.	Nitin Sham Pawar	8552806017	Swalles.
11.	Vedika Narendrasing Salame	8788260845	Valance
12.	Mukund Appasaheb Salunke	9307400542	<b>M</b>
13.	Satyajit Ram Phalake	9527021081	Relater
14.	Sargar Lalit Rajaram	9552012054	Sargate
15.	Shejal Kailas Wakade	9423802972	Oheje
16.	Anuja Haridas Pachphule	7767889150	Anuja
17.	Tushar Kshirsagar	9527542506	ASSENTABLE
18.	Pradnya Rajesh Waman	8421391074	* Amons
19.	Suraj Rajendra Lobhe	7264949691	'Aut->
20.	Dhanashree Santosh Rathi	8605204917	
21.	Pratiksha Laxman Raut	7448005083	Realit 860
22.	Varsha Sunil Pawar	9607454496	50
23.	Damini Pradeep Shinde	8308008759	Shinge-
24.	Rutuja Satish Sonawane	8007486864	2.cs
25.	Komal Jotiram Doifode	7821970873	Wirms,
26.	Hemant Vijay Bhoi	7498292330	Gegan







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 7/4/24

Sr. No.	Name of Student	Contact No.	Sign of Student
1.	Aishwarya Sunil Pandit	7588240530	Hondit
2.	Yogita Ganpat Dighe	8459493397	1995
3.	Nagesh Wadikar	6360985873	(N)
4.	Sakshi Dhamal	7666856486	thamas
5.	Sanket Rajendra Bora	7972504988	
6.	Hardika Patel	9168975751	(Pate)
7.	Smita Madhav Warade	8600069586	awarade.
8.	Nikita Satyawan salunke	9011558104	Nik
9.	Shweta Rajendra Jagtap	8637780559	Reger
10.	Nitin Sham Pawar	8552806017	Sydiae.
11.	Vedika Narendrasing Salame	8788260845	Falame
12.	Mukund Appasaheb Salunke	9307400542	
13.	Satyajit Ram Phalake	9527021081	Falake
14.	Sargar Lalit Rajaram	9552012054	Sangar
15.	Shejal Kailas Wakade	9423802972	OSlejet
16.	Anuja Haridas Pachphule	7767889150	Paise
17.	Tushar Kshirsagar	9527542506	
18.	Pradnya Rajesh Waman	8421391074	Fornas
19.	Suraj Rajendra Lobhe	7264949691	Mary -
20.	Dhanashree Santosh Rathi	8605204917	
21.	Pratiksha Laxman Raut	7448005083	batil-16
22.	Varsha Sunil Pawar	9607454496	38
23.	Damini Pradeep Shinde	8308008759	thinde
24.	Rutuja Satish Sonawane	8007486864	
25.	Komal Jotiram Doifode	7821970873	Winn,
26.	Hemant Vijay Bhoi	7498292330	103he







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 13/4/24

Name of Student	Contact No.	Sign of Student
Aighwang Sunil Pandit		Hardit
Vocite Connet Dighe		Mars.
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		thama,
		(Hatel
		Quarade
		44.60
		Rose
Shweta Rajendra Jagtap		Thurs.
Nitin Sham Pawar		Jalam
Vedika Narendrasing Salame		The state of the s
Mukund Appasaheb Salunke		Flake
		8 organ
		8014
		OSKIPY-
Anuja Haridas Pachphule		Anuja
Tushar Kshirsagar	9527542506	
Pradnya Rajesh Waman	8421391074	- Thanas
Suraj Rajendra Lobhe	7264949691	" Brew
Dhanashree Santosh Rathi	8605204917	
	7448005083	Peatilo
	9607454496	THE.
	8308008759	
Rutuia Satish Sonawane	8007486864	
Komal Jotiram Doifode	7821970873	Danis
Hemant Vijay Bhoi	7498292330	Osh-
	Pradnya Rajesh Waman Suraj Rajendra Lobhe Dhanashree Santosh Rathi Pratiksha Laxman Raut Varsha Sunil Pawar Damini Pradeep Shinde Rutuja Satish Sonawane Komal Jotiram Doifode	Aishwarya Sunil Pandit         7588240530           Yogita Ganpat Dighe         8459493397           Nagesh Wadikar         6360985873           Sakshi Dhamal         7666856486           Sanket Rajendra Bora         7972504988           Hardika Patel         9168975751           Smita Madhav Warade         8600069586           Nikita Satyawan salunke         9011558104           Shweta Rajendra Jagtap         8637780559           Nitin Sham Pawar         8552806017           Vedika Narendrasing Salame         8788260845           Mukund Appasaheb Salunke         9307400542           Satyajit Ram Phalake         9527021081           Sargar Lalit Rajaram         9552012054           Shejal Kailas Wakade         9423802972           Anuja Haridas Pachphule         7767889150           Tushar Kshirsagar         9527542506           Pradnya Rajesh Waman         8421391074           Suraj Rajendra Lobhe         7264949691           Dhanashree Santosh Rathi         7448005083           Varsha Sunil Pawar         9607454496           Damini Pradeep Shinde         8308008759           Rutuja Satish Sonawane         8007486864           Komal Jotiram Doifode         7821970873







# **HPLC** Analytical and Method Development Course

Attendance Sheet

Date: 14/4/24

Sr No	Name of Student	Contact No.	Sign of Student
1.	Aishwarya Sunil Pandit	7588240530	Thursist .
2.	Yogita Ganpat Dighe	8459493397	May .
3.	Nagesh Wadikar	6360985873	part
4.	Sakshi Dhamal	7666856486	Horna
5.	Sanket Rajendra Bora	7972504988	
6.	Hardika Patel	9168975751	Matel
7.	Smita Madhav Warade	8600069586	awarade
8.	Nikita Satyawan salunke	9011558104	Nike
9.	Shweta Rajendra Jagtap	8637780559	8098×
10.	Nitin Sham Pawar	8552806017	STANGED,
11.	Vedika Narendrasing Salame	8788260845	Dalame
12.	Mukund Appasaheb Salunke	9307400542	<u>63</u>
13.	Satyajit Ram Phalake	9527021081	Falebe.
14.	Sargar Lalit Rajaram	9552012054	Surger
15.	Shejal Kailas Wakade	9423802972	ashiet
16.	Anuja Haridas Pachphule	7767889150	Anige
17.	Tushar Kshirsagar	9527542506	
18.	Pradnya Rajesh Waman	8421391074	Paman
19.	Suraj Rajendra Lobhe	7264949691	deel
20.	Dhanashree Santosh Rathi	8605204917	
21.	Pratiksha Laxman Raut	7448005083	Reatitale
22.	Varsha Sunil Pawar	9607454496	
23.	Damini Pradeep Shinde	8308008759	
24.	Rutuja Satish Sonawane	8007486864	25
25.	Komal Jotiram Doifode	7821970873	Quin,
26.	Hemant Vijay Bhoi	7498292330	Coghe







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 27/4/24

	•	Contact No.	Sign of Student
Sr. No.	Name of Student	7588240530	Hargit.
1.	Aishwarya Sunil Pandit	8459493397	May
2.	Yogita Ganpat Dighe	6360985873	ALL
3.	Nagesh Wadikar	7666856486	thamas 1
4.	Sakshi Dhamal	7972504988	
5.	Sanket Rajendra Bora	9168975751	Partes.
6.	Hardika Patel	8600069586	Quinade.
7.	Smita Madhav Warade	9011558104	Nik
8.	Nikita Satyawan salunke	8637780559	Real
9.	Shweta Rajendra Jagtap		wages.
10.	Nitin Sham Pawar	8552806017	Valame
11.	Vedika Narendrasing Salame	8788260845	NO NO
12.	Mukund Appasaheb Salunke	9307400542	Palate
13.	Satyajit Ram Phalake	9527021081	Sagar
14.	Sargar Lalit Rajaram	9552012054	00/100-
15.	Shejal Kailas Wakade	9423802972	Ongo
16.	Anuja Haridas Pachphule	7767889150	anup
17.	Tushar Kshirsagar	9527542506	Al - Al
18.	Pradnya Rajesh Waman	8421391074	Manay
	Suraj Rajendra Lobhe	7264949691	1004
19. 20.	Dhanashree Santosh Rathi	8605204917	1 1 1 1 1 1
	Pratiksha Laxman Raut	7448005083	Peatitals
21.	Varsha Sunil Pawar	9607454496	
22.	Damini Pradeep Shinde	8308008759	Shinge
23.	Rutuja Satish Sonawane	8007486864	
24.	Kutuja Satish Soliawane  Komal Jotiram Doifode	7821970873	(Binney)
25.	Komai Johnan Donode	7498292330	Ozhin
26.	Hemant Vijay Bhoi	11000000	







# **HPLC Analytical and Method Development Course**

Attendance Sheet

Date: 28/4/24

~ >7	N of Chidant	Contact No.	Sign of Student
	Name of Student	7588240530	Royald.
1.	Aishwarya Sunil Pandit	8459493397	2002
2.	Yogita Ganpat Dighe	6360985873	Mar
3.	Nagesh Wadikar	7666856486	thamas ,
4.	Sakshi Dhamal	7972504988	
5.	Sanket Rajendra Bora	9168975751	Hertol.
6.	Hardika Patel	8600069586	awares.
7.	Smita Madhav Warade	9011558104	Alike
8.	Nikita Satyawan salunke	8637780559	ACCES TO
9.	Shweta Rajendra Jagtap	8552806017	SUMPER
10.	Nitin Sham Pawar		Mame
11.	Vedika Narendrasing Salame	8788260845	and and
12.	Mukund Appasaheb Salunke	9307400542	Ralake.
13.	Satyajit Ram Phalake	9527021081	Solger
14.	Sargar Lalit Rajaram	9552012054	2014
15.	Shejal Kailas Wakade	9423802972	Ostrejaj
16.	Anuja Haridas Pachphule	7767889150	Aniya
17.	Tushar Kshirsagar	9527542506	
18.	Pradnya Rajesh Waman	8421391074	Romas
19.	Suraj Rajendra Lobhe	7264949691	deed
20.	Dhanashree Santosh Rathi	8605204917	
21.	Pratiksha Laxman Raut	7448005083	Peatikhe
22.	Varsha Sunil Pawar	9607454496	
23.	Damini Pradeep Shinde	8308008759	Shirde
	Rutuja Satish Sonawane	8007486864	RE
24.	Komal Jotiram Doifode	7821970873	Colina
25.		7498292330	(Ospin
26.	Hemant Vijay Bhoi	1470272330	





# Assessment of HPLC Analytical method development and validation



P. E. Society's Modern College of Pharmacy Nigdi-44

# **HPLC** Analytical and Method Development Course

Exam Marks Sheet

Date: 4/5/24

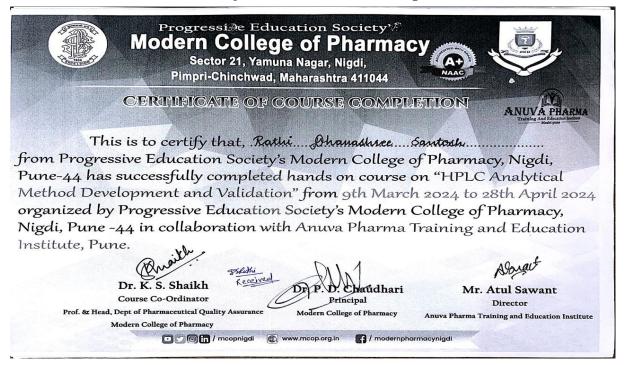
Sr. No.	Name of Student	Contact No.	Marks obtained
1.	Aishwarya Sunil Pandit	7588240530	36
2.	Yogita Ganpat Dighe	8459493397	32
3.	Nagesh Wadikar	6360985873	36
4.	Sakshi Dhamal	7666856486	39
5.	Sanket Rajendra Bora	7972504988	36
6.	Hardika Patel	9168975751	37
7.	Smita Madhav Warade	8600069586	40
8.	Nikita Satyawan Salunke	9011558104	34
9.	Shweta Rajendra Jagtap	8637780559	28
10.	Nitin Sham Pawar	8552806017	~32
11.	Vedika Narendrasing Salame	8788260845	-
12.	Mukund Appasaheb Salunke	9307400542	33
13.	Satyajit Ram Phalake	9527021081	29
14.	Sargar Lalit Rajaram	9552012054	32
15.	Shejal Kailas Wakade	9423802972	. 33
16.	Anuja Haridas Pachphule	7767889150	34
	Tushar Kshirsagar	9527542506	31.
17.	Pradnya Rajesh Waman	8421391074	35 •
18.	Suraj Rajendra Lobhe	7264949691	34
19.	Dhanashree Santosh Rathi	8605204917	37
20.	Pratiksha Laxman Raut	7448005083	42
21.	Varsha Sunil Pawar	9607454496	41
22.	Varsna Sumi i awai	8308008759	48
23.	Damini Pradeep Shinde	8007486864	48
24.	Rutuja Satish Sonawane	7821970873	28
25.	Komal Jotiram Doifode	7498292330	- 4.4
26.	Hemant Vijay Bhoj		-

Modern College of Pharmacy Yamunanagar Sector No. 21 Nigdi, Pune -411044





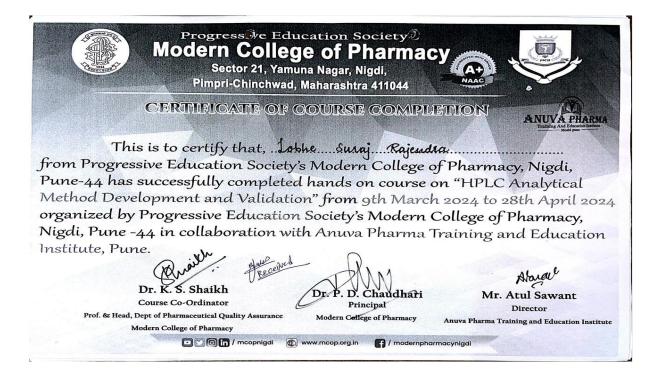
# Certificate of HPLC Analytical method development and validation

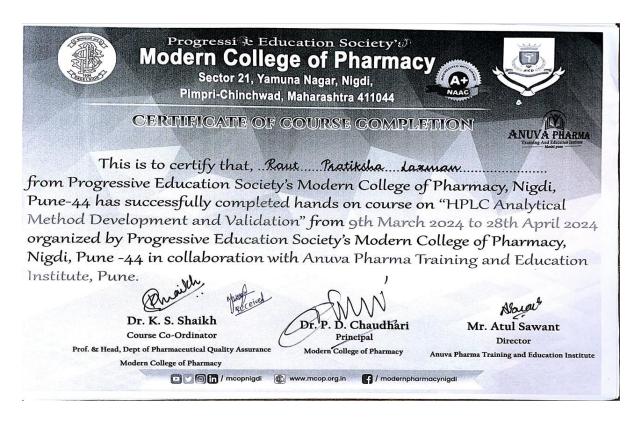














## **Brochure of NPTEL Course on Enhancing Soft Skills and Personality**



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

## **Enhancing Soft Skills and Personality**

By Prof. T. Ravichandran | IIT Kanpur

Learners enrolled: 59107 | Exam registration: 19859



#### ABOUT THE COURSE

The course aims to cause an enhanced awareness about the significance of soft skills in professional and inter-personal communications and facilitate an all-round development of personality. Hard or technical skills help securing a basic position in one's life and career. But only soft skills can ensure a person retain it, climb further, reach a pinnacle, achieve excellence, and derive fulfilment and supreme joy. Soft skills comprise pleasant and appealing personality traits as self-confidence, positive attitude, emotional intelligence, social grace, flexibility, friendliness and effective communication skills. The focus of this course is on interpersonal and management skills. It has been approved for "Faculty Development Programme (https://nptel.ac.in/AICTE\_FDP/)" by AICTE.

INTENDED AUDIENCE : Students, Teachers, Professionals, Trainers, Leaders, Employers

**PREREQUISITES**: No prerequisite is required. Background knowledge of MOOC Course on "Developing Soft Skills and Personality" is preferred. "Developing Soft Skills and Personality" course was also recognized as FDP during Aug-Oct'18 Period.

**INDUSTRY SUPPORT**: All industry/companies/organisations will recognize and value this course and recommend this for their employees and trainee programs

## Summary

0





Course Status :	CWAVAM	Completed (https://swayam.gov.in/)	1	(https://swayam.gov.in/nc_details/NPTEL
Course Type :	SVOLYGIIII	Elective	Color Barrell	V

Language for course contentbout Swayam (https://swayam.gov.in/afbroglitsh| All Courses |

Duration: 8 weeks

Category : 

• Humanities and Social Sciences

Credit Points: 2

Level: Undergraduate/Postgraduate

 Start Date :
 19 Feb 2024

 End Date :
 12 Apr 2024

 Enrollment Ends :
 19 Feb 2024

 Exam Registration Ends :
 15 Mar 2024

 Exam Date :
 20 Apr 2024 IST

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

This is an AICTE approved FDP course

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 $(https://www.addtoany.com/share\#url=https\%3A\%2F\%2Fonline courses.nptel.ac.in\%2Fnoc24\_hs26\%2Fpreview\&title=Enhancing\%20Soft\%20Skills\%20and\%20Personality\%20-w20Course)$ 

## Course layout

#### Week 1

- Highlights of Developing Soft Skills and Personality Course-1-24
- Highlights of Developing Soft Skills and Personality Course-25-48
- Definitions and Types of Mindset
- Learning Mindsets
- Secrets of Developing Growth Mindsets

#### Week 2

- Importance of Time and Understanding Perceptions of Time
- · Using Time Efficiently
- · Understanding Procrastination
- Overcoming Procrastination
- · Don't Say "Yes" to Make Others Happy!

#### Week 3:

- · Types of People
- How to Say "No"
- · Controlling Anger
- · Gaining Power from Positive Thinking-1





## List of students of NPTEL Course on Enhancing Soft Skills and Personality



## Progressive Education Society's

## **MODERN COLLEGE OF PHARMACY**

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'Best College Award' by Savitribai Phule Pune University

Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to SavItribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314 E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: NPTEL on Enhancing Soft Skills and Personality

Date: Feb-Apr 2024

Course Code: noc24-ge21

Course Duration: 8 Week

#### List of Students

Sr. No	Name of Student	Sign
1	ANIKET SHIVAJI ULMULE	Rechol

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# Curriculum and Summary of NPTEL Course on Enhancing Soft Skills and Personality

Course Status : (https://swaya	Completed (https://swayam.gov.in/nc_details/NPTEL)
Course Type :	Elective
Language for course contembout Swayam (https://swayam.gov	in/aEmoglish  All Courses   ()
Duration :	8 weeks
Category:	Humanities and Social Sciences
Credit Points :	2
Level:	Undergraduate/Postgraduate
Start Date :	19 Feb 2024
End Date :	12 Apr 2024
Enrollment Ends :	19 Feb 2024
Exam Registration Ends :	15 Mar 2024
Exam Date :	20 Apr 2024 IST
Note: This exam date is subject to change based on seat availability.	You can check final exam date on your hall ticket.
This is an AICTE approved FDP course	
(/#facebook) (/#x) (/#microsoft_teams) (/	#linkedin) (/#whatsapp)
(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourses.n	otel.ac.in%2Fnoc24_hs26%2Fpreview&title=Enhancing%20Soft%20Skills%20and%20Personality%20

## Course layout

#### Week 1

- Highlights of Developing Soft Skills and Personality Course-1-24
- Highlights of Developing Soft Skills and Personality Course-25-48
- Definitions and Types of Mindset
- Learning Mindsets
- Secrets of Developing Growth Mindsets

## Week 2

- Importance of Time and Understanding Perceptions of Time
- Using Time Efficiently
- Understanding Procrastination
- Overcoming Procrastination
- Don't Say "Yes" to Make Others Happy!

#### Week 3

- Types of People
- How to Say "No"
- Controlling Anger
- Gaining Power from Positive Thinking-1

0





- What Makes Others Like សូល្លមុំ និស់ayam (https://swayam.gov.in/about) | All Courses |
- What Makes Others Like You?-2
- Being Attractive-1
- Being Attractive-2

#### Week 5

- Common Errors-1
- · Common Errors-2
- Common Errors-3
- Common Errors-4
- Common Errors-5

#### Week 6:

- · Humour in Communication
- · Humour in the Workplace
- · Function of Humour in the Workplace
- Money and Personality
- Managing Money

#### Week 7

- · Health and Personality
- · Managing Health-1: Importance of Exercise
- · Managing Health-2: Diet and Sleep
- · Love and Personality
- Managing Love

#### Week 8

- · Ethics and Etiquette
- Business Etiquette
- · Managing Mind and Memory
- Improving Memory
- · Care for Environment
- Highlights of the Course

#### **Books and references**

- Dorch, Patricia. What Are Soft Skills? New York:Execu Dress Publisher, 2013.
- Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer &
- Klaus, Peggy, Jane Rohman & Dy Hamaker. The Hard Truth about Soft Skills. London: HarperCollins E-books, 2007.
- Petes S. J., Francis. Soft Skills and ProfessionalCommunication. New Delhi: Tata McGraw-HillEducation, 2011.
- Stein, Steven J. & D. & Steven J. & Stev

## Instructor bio







## **Attendance of NPTEL Course on Enhancing Soft Skills and Personality**

## National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### **Anytime Anywhere Learning**

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







## Assessment of NPTEL Course on Enhancing Soft Skills and Personality



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Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to SavItrIbal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel. : 020-27661315 Fax : 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Enhancing Soft Skills and Personality

Date: Feb-Apr 2024

Course Code: noc24-ge21

Course Duration: 8 Week

#### List of Students

Sr. No	Name of Student	Examination %
1	ANIKET SHIVAJI ULMULE	65

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





## Certificate of NPTEL Course on Enhancing Soft Skills and Personality



# NPTEL Online Certification (Funded by the MoE, Govt. of India)



This certificate is awarded to

## **ANIKET SHIVAJI ULMULE**

for successfully completing the course

## **Enhancing Soft Skills and Personality**

with a consolidated score of

5

%

Online Assignments 19.5/25

5/25 Proctored Exam

45.75/75

Total number of candidates certified in this course:12566

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education

Feb-Apr 2024

(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator



Indian Institute of Technology Kanpur



Roll No: NPTEL24HS26S465202252

To verify the certificate



No. of credits recommended: 2 or 3





## **Brochure of NPTEL Course on Research Methodology**



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

## Research Methodology

By Prof. Edamana Prasad, Prof. Prathap Haridoss | IIT Madras

Learners enrolled: 15038 | Exam registration: 4909



#### ABOUT THE COURSE:

Large numbers of students are actively considering and taking up research and associated higher studies. This course aims to introduce students to the important aspects of research. The intent of the course is to make students aware of the details associated with formal research and to help students overcome common misconceptions that may be present in their minds. By going through this course, students are likely to be able to take up research activities in a more systematic and formal manner right from the beginning.





## **List of students of NPTEL Course on Research Methodology**



**Progressive Education Society's** 

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Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel. : 020-27661315 Fax : 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Research Methodology

Date: Aug-Oct 23

Course Code: noc24-ge21

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Sign
01	PATHAN ADIL MUKHTAR	Mdil
02	ADITYA DEVENDRA CHONDE	Advisor
03	AISHWARYA SUNIL PANDIT	Prendot .
04	AJAY PRAKASH PATANGE	My
05	AKANKSHA VIJAY PATIL	Atarksha
06	ANUSHKA KALE	exale
07	BHAND NITIN MACHHINDRA	NBhang
08	SHUBHAM SHARAD DESHPANDE	Shuffin
09	DHANASHREE SANTOSH RATHI	Dhanania
10	YOGITA GANPAT DIGHE	Dights
11	DIVYA MADHUKAR DHAMANKAR	Diga
12	GANESH DESAI	Church
13	GEETANJALI PANDURANG MORE	Geeta
14	HARSHAL RAJESH PATIL	H. Potil
15	KALYANI SHANTARAM GHOTEKAR	Kalyan
16	KRISHNA HALNE	Kris
17	SARGAR LALIT RAJARAM	Skajakan
18	JAGTAP SHWETA RAJENDRA	C.M.bl
19	MONIKA VASANT RATHOD	Monito
20	POOJA BHARAT SALGAR	Tone
21	PRATIKSHA LAXMAN RAUT	Raut







**Progressive Education Society's** 

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Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to Savitribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314 E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S. M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Sign
22	SAKSHI RAJENDRA SONAWANE	S. Sonawane
23	SAMIKSHA SANJAY PATOKAR	5:31
24	SAMPADA KUNDLIK RAKSHE	Somash
25	SAMRUDDHI GANESH INGLE	6+51
26	SANKET RAJENDRA BORA	Sanket B
27	SHARVARI PRATAP SHENDAGE	18.5
28	NEHA PRABHAKAR SHEGOKAR	Neha
29	SNEHA SATISH JADHAV	Sachs
30	SWAPNIL SURESH TARATE	Swap
31	VEDIKA NARENDRASING SALAME	VEOC
32	WAKADE SHEJAL KAILAS	Sheri
33	VISHAL ANNASAHEB VARE	948
34	OMKAR DATTATRAY MAKEY	OMIRES

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari

Page 2 of 2

0





## **Curriculum of NPTEL Course on Research Methodology**



(https://swayam.gov.in/nc\_details/NPTEL)

Week 1 : A group discussion on what is research; Overview of research; About Swayam (https://swayam.gov.in/about) | All Courses | Week 2 : Literature survey , Experimental skills;

Week 3: Data analysis, Modelling skills;

Week 4: Technical writing; Technical Presentations; Creativity in Research

Week 5: Creativity in Research; Group discussion on Ethics in Research

Week 6: Design of Experiments

Week 7: Intellectual Property

Week 8: Department specific research discussions

#### Instructor bio



Prof. Edamana Prasad

E. PRASAD, Professor, Department of Chemistry, Indian Institute of Technology Madras, Chennai 600 036, INDIA Phone: ++91-44-2257 4232 ; Email: pre@iitm.ac.in

Educational Qualification: BSc., & MSc. From Calicut University, Kerala, India during 1990-1995; Ph.D. from NIIST, Thiruvananthapuram, Kerala, India in Photophysical Chemistry in 2000. Post Doctoral Research Experience: (2001 to 2006) Texas Tech University & Lehigh University, USA and University of Bonn, Germany (Alexander von Humboldt Fellow)

Professional Experience (11 years): Faculty at Department of Chemistry, IIT Madras since 2006; (8 years): Head, Teaching Learning Centre, IIT Madras; (6 years): Core team member, Teaching Learning Centre, IIT Madras (7+ years). Specialization and Expertise: Chemistry: Photophysical Chemistry, Design and Synthesis of organic and hydro gelators for various applications;

Education/Teaching: Designing Learning Outcomes for Courses, Conducting Classes using Active and Collaborative Learning Techniques.

Awards and Distinctions: AvH Fellowship (2002), Young Faculty Recognition Award (IIT Madras, 2011). Research Publications in Peer Reviewed Journals: 65.Conference Paper: Development of a Teaching Learning Centre and Ongoing Faculty Development Programs - A Case Study, Prasad Edamana, Ajith Kumar Kolar, Pramod S Mehta, Sujatha Srinivasan and Jeffrey Froyd, American Society for Engineering Education, USA, June, 2012.



## **Summary of NPTEL Course on Research Methodology**



#### Prof. Prathap Haridoss

#### IIT Madras

Prof. Prathap Haridoss is a Professor in the Department of Metallurgical and Materials Engineering at IIT Madras. He works in the areas of Fuel Cell and Carbon nanomaterials. He has a B.Tech in Metallurgical Engineering from IIT Madras, and a PhD in Materials Science and Engineering from the University of Wisconsin-Madison, USA. Before he joined as a faculty at IIT Madras, he served as a Senior Scientist at Plug Power, a Fuel Cell company in New York. He has 3 US patents, several International Journal publications, and has published a book titled "Physics of Materials, Essential Concepts of Solid State Physics"

#### Course certificate

The course is free to enroll and learn from. But if you want a certificate, you have to register and write the proctored exam conducted by us in person at any of the designated exam centres.

The exam is optional for a fee of Rs 1000/- (Rupees one thousand only).

Date and Time of Exams: 28 October 2023 Morning session 9am to 12 noon; Afternoon Session 2pm to 5pm.

Registration url: Announcements will be made when the registration form is open for registrations.

The online registration form has to be filled and the certification exam fee needs to be paid. More details will be made available when the exam registration form is published. If there are any changes, it will be mentioned then.

Please check the form for more details on the cities where the exams will be held, the conditions you agree to when you fill the form etc.

#### **CRITERIA TO GET A CERTIFICATE**

Average assignment score = 25% of average of best 6 assignments out of the total 8 assignments given in the course. Exam score = 75% of the proctored certification exam score out of 100

Final score = Average assignment score + Exam score

YOU WILL BE ELIGIBLE FOR A CERTIFICATE ONLY IF AVERAGE ASSIGNMENT SCORE >= 10/25 AND EXAM SCORE >= 30/75. If one of the 2 criteria is not met, you will not get the certificate even if the Final score >= 40/100.

Certificate will have your name, photograph and the score in the final exam with the breakup. It will have the logos of NPTEL and IIT Madras . It will be e-verifiable at nptel.ac.in/noc (http://nptel.ac.in/noc).

Only the e-certificate will be made available. Hard copies will not be dispatched.

Once again, thanks for your interest in our online courses and certification. Happy learning.

- NPTEL team





## **Attendance of NPTEL Course on Research Methodology**

## National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### **Anytime Anywhere Learning**

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







## **Assessment of NPTEL Course on Research Methodology**



Progressive Education Society's

## MODERN COLLEGE OF PHARMACY

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Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to Savitribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

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E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Research Methodology

Date: Aug-Oct 23

Course Code: noc24-ge21

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Marks %
01	PATHAN ADIL MUKHTAR	76
02	ADITYA DEVENDRA CHONDE	78
03	AISHWARYA SUNIL PANDIT	61
04	AJAY PRAKASH PATANGE	71
05	AKANKSHA VIJAY PATIL	78
06	ANUSHKA KALE	63
07	BHAND NITIN MACHHINDRA	83
08	SHUBHAM SHARAD DESHPANDE	84
09	DHANASHREE SANTOSH RATHI	80
10	YOGITA GANPAT DIGHE	70
11	DIVYA MADHUKAR DHAMANKAR	78
12	GANESH DESAI	86
13	GEETANJALI PANDURANG MORE	69
14	HARSHAL RAJESH PATIL	63
15	KALYANI SHANTARAM GHOTEKAR	88
16	KRISHNA HALNE	57
17	SARGAR LALIT RAJARAM	75
18	JAGTAP SHWETA RAJENDRA	64
19	MONIKA VASANT RATHOD	52
20	POOJA BHARAT SALGAR	69







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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

Sr. No	Name of Student	Sign
21	PRATIKSHA LAXMAN RAUT	80
22	SAKSHI RAJENDRA SONAWANE	76
23	SAMIKSHA SANJAY PATOKAR	68
24	SAMPADA KUNDLIK RAKSHE	67
25	SAMRUDDHI GANESH INGLE	63
26	SANKET RAJENDRA BORA	70
27	SHARVARI PRATAP SHENDAGE	63
28	NEHA PRABHAKAR SHEGOKAR	86
29	SNEHA SATISH JADHAV	78
30	SWAPNIL SURESH TARATE	70
31	VEDIKA NARENDRASING SALAME	53
32	WAKADE SHEJAL KAILAS	71
33	VISHAL ANNASAHEB VARE	67
34	OMKAR DATTATRAY MAKEY	68

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari

Page 2 of 2





## **Certificate of NPTEL Course on Research Methodology**



## ine Certification



This certificate is awarded to

**PATHAN ADIL MUKHTAR** 

for successfully completing the course

## Research Methodology

with a consolidated score of

76

%

Online Assignments 21.67/25

Proctored Exam

54.69/75

Total number of candidates certified in this course: 3794



Prof. Devendra Jalihal Chairperson, Centre for Outreach and Digital Education, IITM

Roll No: NPTEL23GE36S645103327

Aug-Oct 2023

(8 week course)





Indian Institute of Technology Madras

To verify the certificate



No. of credits recommended: 2 or 3



## Elite Certification



This certificate is awarded to

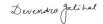
**ADITYA DEVENDRA CHONDE** for successfully completing the course



with a consolidated score of

Online Assignments | 21.67/25 | Proctored Exam 56.25/75

Total number of candidates certified in this course: 3794



Prof. Devendra Jalihal Chairperson, Centre for Outreach and Digital Education, IITM

Aug-Oct 2023 (8 week course)

Prof. Andrew Thangaraj



Indian Institute of Technology Madras

No. of credits recommended: 2 or 3



Roll No: NPTEL23GE36S645100714

To verify the certificate









# Elite

(Funded by the MoE, Govt. of India)



This certificate is awarded to

## AISHWARYA SUNIL PANDIT

for successfully completing the course

## Research Methodology

with a consolidated score of

Online Assignments | 17.08/25 | Proctored Exam | 43.5/75

Total number of candidates certified in this course: 2928

Devendra galihal

Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Roll No: NPTEL24GE21S665203340

Feb-Apr 2024

(8 week course)

Prof. Andrew Thangaraj NPTEL, Coordinator



Indian Institute of Technology Madras

To verify the certificate



No. of credits recommended: 2 or 3



# (Funded by the MoE, Govt. of India)



This certificate is awarded to

#### AJAY PRAKASH PATANGE

for successfully completing the course

## Research Methodology

with a consolidated score of

Online Assignments | 22.92/25 | Proctored Exam | 48.44/75

Total number of candidates certified in this course: 3794

Devendra galihal

Prof. Devendra Jalihal Chairperson, Centre for Outreach and Digital Education, IITM Aug-Oct 2023

(8 week course)

Prof. Andrew Thangaraj NPTEL, Coordinato



Indian Institute of Technology Madras

No. of credits recommended: 2 or 3

Roll No: NPTEL23GE36S645104535

To verify the certificate





## **Brochure of NPTEL Course on Medicinal Chemistry**

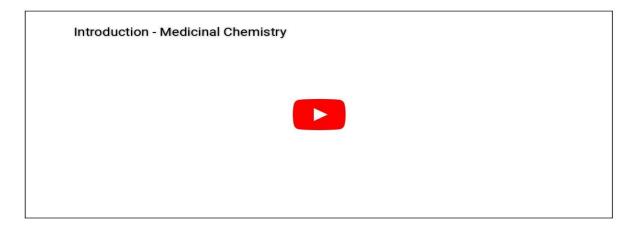


Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

## **Medicinal Chemistry**

By Prof. Harinath Chakrapani | IISER Pune

Learners enrolled: 3185 | Exam registration: 807



#### ABOUT THE COURSE:

The main objective of this course is to familiarize students with the fundamental concepts of drug discovery and development. The course is intended for students who have a background in chemistry and interested in the process of drug discovery. The intended outcome is to train students on various aspects of new drug discovery/development, drug screening, target identification, lead discovery, optimization and the molecular basis of drug design and drug action.

INTENDED AUDIENCE: Third year undergraduates of B.Sc. Chemistry; M.Sc. Chemistry students and doctoral stude





interest in drug swayam.gov. (https://swayam.gov.	
About Swayam (https://swayam.gov.in/about/Summary	tor may recognize and value this course.    All Courses   ()
Course Status :	Completed
Course Type :	Core
Language for course content :	English
Duration :	12 weeks
Category:	Chemistry
Credit Points :	3
Level :	Undergraduate/Postgraduate
Start Date :	22 Jan 2024
End Date :	12 Apr 2024
Enrollment Ends :	05 Feb 2024
Exam Registration Ends :	16 Feb 2024
Exam Date :	27 Apr 2024 IST
Note: This exam date is subject to change based on seat availabil	ity. You can check final exam date on your hall ticket.
This is an AICTE approved FDP course	
(/#facebook) (/#x) (/#microsoft_teams)	(/#linkedin) (/#whatsapp)
(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourse%20Course)	s.nptel.ac.in%2Fnoc24_cy17%2Fpreview&title=Medicinal%20Chemistry%20

## Course layout

Week 1: An overview of drugs and drug targets; structure of a cell; intermolecular binding forces; classification of drugs are drugs and inhibition in drug discovery: Enzyme mechanisms overview catalysis and inhibition in drug discovery; reversible and irreversible inhibitors; transition-state inhibitors; case studies





## **List of students of NPTEL Course on Medicinal Chemistry**



## Progressive Education Society's

## **MODERN COLLEGE OF PHARMACY**



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S. M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Medicinal Chemistry

Date: Jan-Apr 23

Course Code: noc24-cy17

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Sign
1	VAIBHAV MALI	taliv.
2	GAYATRI BHAGWAN JAGDALE	Garales

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





## **Curriculum of NPTEL Course on Medicinal Chemistry**

week 3 : Princ ructure, catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition in drug discovery: Enzyme mechanisms overview; enzyme catalysis and inhibition inhibition inhibition

Week 4: Receptors function and ligand binding interactions; Ion channel receptors; kinase-linked receptors; G-Protein coupled receptors, drug-receptor interaction; dose-response curves; case studies

Week 5: Nucleic acids structure and function; DNA Interactive agents and chemotherapy: DNA binding agents; intercalation and alkylation; DNA strand breakers; case studies

Week 6: Synthetic methods in medicinal chemistry: Combinatorial and parallel synthesis: solid phase techniques, mix and split method in combinatorial synthesis; dynamic combinatorial synthesis; solid phase synthesis; diversity-oriented synthesis.

**Week 7**: Lead discovery; Bioassays; drug targets; Lead Modification; optimization; pharmacophore; homologation; bioisostere; chain branching; Electronic effects; Lipophilicity; Structure-Activity Relationships; Quantiative-structure activity relationships (QSAR).

Week 8: Lead discovery; Bioassays; drug targets; Lead Modification; optimization; pharmacophore; homologation; bioisostere; chain branching; Electronic effects; Lipophilicity; Structure-Activity Relationships; Quantiative-structure activity relationships (OSAR).

Week 9: Drug metabolism and pharmacology: Analytical methods in metabolism; Phase I and Phase II transformations; Absorption, distribution, metabolism and excretion (ADME); bioavailability; pre-clinical and clinical development; therapeutic index and therapeutic window.

Week 10: Prodrugs and drug delivery systems: Use of prodrug systems; prodrugs for stability, solubility and slow release; overview of drug delivery

Week 11: Drug resistance mechanisms and synergism: Mechanisms of drug resistance; circumventing drug resistance; drug synergy

Week 12: Drug resistance mechanisms and synergism: Mechanisms of drug resistance; circumventing drug resistance; drug synergy

#### Books and references

An Introduction to Medicinal Chemistry, Graham L. Patrick; Second Edition. The Organic Chemistry of Drug Design and Drug Action, Richard B. Silverman, Second EditionLehninger's Principles of Biochemistry, Cox and Nelson, Fifth Edition (Reference).

#### Instructor bio



Prof. Harinath Chakrapani
IISER Pune







## **Summary of NPTEL Course on Medicinal Chemistry**

Prof. Harinath sted his undergraduate and post-graduate studies in Chemistry from Loyola College and Indian Institute (https://swayang.govin/nidetails/NRTEt). Indian Institute (https://swaya

## Course certificate

The course is free to enroll and learn from. But if you want a certificate, you have to register and write the proctored exam conducted by us in person at any of the designated exam centres.

The exam is optional for a fee of Rs 1000/- (Rupees one thousand only).

Date and Time of Exams: 27 April 2024 Morning session 9am to 12 noon; Afternoon Session 2pm to 5pm.

Registration url: Announcements will be made when the registration form is open for registrations.

The online registration form has to be filled and the certification exam fee needs to be paid. More details will be made available when the exam registration form is published. If there are any changes, it will be mentioned then.

Please check the form for more details on the cities where the exams will be held, the conditions you agree to when you fill the form etc.

#### CRITERIA TO GET A CERTIFICATE

Average assignment score = 25% of average of best 8 assignments out of the total 12 assignments given in the course. Exam score = 75% of the proctored certification exam score out of 100

Final score = Average assignment score + Exam score

YOU WILL BE ELIGIBLE FOR A CERTIFICATE ONLY IF AVERAGE ASSIGNMENT SCORE >= 10/25 AND EXAM SCORE >= 30/75. If one of the 2 criteria is not met, you will not get the certificate even if the Final score >= 40/100.

Certificate will have your name, photograph and the score in the final exam with the breakup. It will have the logos of NPTEL and IISER Pune . It will be e-verifiable at nptel.ac.in/noc (http://nptel.ac.in/noc).

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Once again, thanks for your interest in our online courses and certification. Happy learning.

- NPTEL team







## **Attendance of NPTEL Course on Medicinal Chemistry**

## National Programme on Technology Enhanced Learning (NPTEL)

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The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### Anytime Anywhere Learning

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

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As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







## **Assessment of NPTEL Course on Medicinal Chemistry**



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Medicinal Chemistry

Date: Jan-Apr 23

Course Code: noc24-cy17 Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Sign
1	VAIBHAV MALI	51
2	GAYATRI BHAGWAN JAGDALE	52

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





## **Certificate of NPTEL Course on Medicinal Chemistry**



# NPTEL Online Certification (Funded by the MoE, Govt. of India)



This certificate is awarded to

#### **GAYATRI BHAGWAN JAGDALE**

for successfully completing the course

#### **Medicinal Chemistry**

with a consolidated score of Online Assignments | 15.5/25 | Proctored Exam | 36.67/75

Total number of candidates certified in this course: 475

Santionam Prof. M. S. Santhanam

Roll No: NPTEL24CY17S1065202269

Jan-Apr 2024 (12 week course)





IISER - Indian Institute of Science Education

IISER PUNE and Research Pune

To verify the certificate



No. of credits recommended: 3 or 4



## **EL** Online Certification



(Funded by the MoE, Govt. of India)

This certificate is awarded to

**VAIBHAV MALI** 

for successfully completing the course

## **Medicinal Chemistry**

with a consolidated score of

Online Assignments | 11.85/25 | Proctored Exam | 38.81/75

Total number of candidates certified in this course: 475

Santianam

Prof. M. S. Santhanam International Relations and Outreach IISER Pune

Jan-Apr 2024 (12 week course) Prof. Andrew Thangaraj



IISER - Indian Institute of Science Education IISER PUNE and Research Pune

Roll No: NPTEL24CY17S965203124





## **Brochure of NPTEL Course on Intellectual Property**

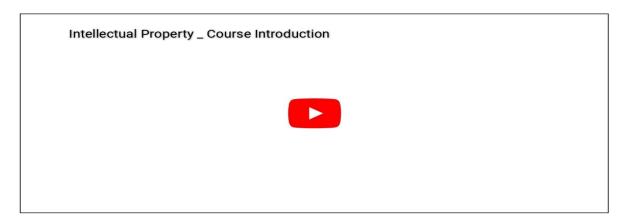


Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

## Intellectual Property

By Prof. Feroz Ali | IIT Madras

Learners enrolled: 4708 | Exam registration: 1711



## About the course:

This is a substantive course on Intellectual Property. The course shall give a brief overview of the IP landscape in India. It shall also dwell into the role of IP in the modern intangible economy. The course can be offered as a generic elective subject under the Choice Based Credit System in universities and affiliated colleges as suggested by UGC. Important For Certification/Credit Transfer:

INTENDED AUDIENCE: interested Students





Summary Swayam (https://swayam.gov.in/		(https://swayam.gov.in/nc_details/NPTEL)
--	--	--

Course Status :About Swayam (https://swayam.gov.in/abeuth.placeth.placeth.placeth.placeth.glac

Course Type : Elective

Language for course content : English

Duration : 12 weeks

Category : • Humanities and Social Sciences

Law

o Faculty Domain for Experienced

Credit Points:

Level: Undergraduate/Postgraduate

 Start Date :
 22 Jan 2024

 End Date :
 12 Apr 2024

 Enrollment Ends :
 05 Feb 2024

 Exam Registration Ends :
 16 Feb 2024

 Exam Date :
 27 Apr 2024 IST

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

This is an AICTE approved FDP course

(/#facebook) (/#x) (/#microsoft\_teams) (/#linkedin) (/#whatsapp)

 $(https://www.addtoany.com/share \#url=https \% 3A \% 2F\% 2F online courses.nptel.ac.in \% 2F noc 24\_hs 38\% 2F preview \& title=Intellectual \% 20 Property \% 20 \% 20 Course)$ 

## Course layout

Week 1 : Basics of Intellectual Property
Week 2 : The Intangible Economy





## List of students of NPTEL Course on Intellectual Property



## Progressive Education Society's

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Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Intellectual Property

Date: Jan-Apr 24

Course Code: noc24-hs38

Course Duration: 12 Week

List of Students

Sr. No	Name of Student	Sign
1	TEJAL TALEKAR	- Taldeal

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P, D, Chaudhari





## **Curriculum of NPTEL Course on Intellectual Property**

Week 3 : Pate\_\_\_\_\_\_ is to biologics

Week 4 : Trac SWayam ethttps://swayam.gov.in/hc\_details/NPTEL)

Week 5 : Copyright is it right to copy?

Week 6 : Uncopyouti ซฟซ ปลิกา (ก็สาธิรักษณ์ เลือก labout) | All Courses | ()

Week 7: Enforcement of IP—Protecting your rights
Week 8: IP for Business—A profit making asset class

Week 9: IP, Research, and Universities

Week 10: IP for the Creative and Entertainment Industries

Week 11 : Governments Role in Fostering IP
Week 12 : Teaching IP—Let everyone learn IP

## **Books and references**

Lionel Bently & Brad Sherman, Intellectual Property Law (2014)

## Instructor bio



Prof. Feroz Ali

IIT Madras

Dr. Feroz Ali is the Chair Professor on Intellectual Property Rights (IPR) at the Indian Institute of Technology (IIT) Madras. He teaches intellectual property laws and business laws. He is the author of three books on patent law. He is a practicing advocate at the Madras High Court. He litigates and counsels in intellectual property law, corporate law and competition law but his primary focus has remained in patent law. He has appeared before the Supreme Court, the High Courts, Intellectual Property Appellate Board and the Patent Offices

## Course certificate

The course is free to enroll and learn from. But if you want a certificate, you have to register and write the proctored exam conducted by us in person at any of the designated exam centres.

The exam is optional for a fee of Rs 1000/- (Rupees one thousand only).

Date and Time of Exams: 27 April 2024 Morning session 9am to 12 noon; Afternoon Session 2pm to 5pm.

Registration url: Announcements will be made when the registration form is open for registrations.

The online registration form has to be filled and the certification exam fee needs to be paid. More details will be made available when the exam registration form is published. If there are any changes, it will be mentioned then.

Please check the form for more details on the cities where the exams will be held, the conditions you agree to when you fill





## **Summary of NPTEL Course on Intellectual Property**

Week 3 : Pate\_\_\_\_\_\_\_ is to biologics

Week 4 : Trac SWayam ethttps://swayam.gov.in/nc\_details/NPTEL)

Week 5 : Copyright is it right to copy?

Week 6 : Uncombouti swayam (https://swayam.gbv.in/about) | All Courses | ()

Week 7: Enforcement of IP—Protecting your rights
Week 8: IP for Business—A profit making asset class

Week 9: IP, Research, and Universities

Week 10: IP for the Creative and Entertainment Industries

Week 11 : Governments Role in Fostering IP
Week 12 : Teaching IP—Let everyone learn IP

## **Books and references**

Lionel Bently & Brad Sherman, Intellectual Property Law (2014)

## Instructor bio



Prof. Feroz Ali

**IIT Madras** 

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## **Attendance of NPTEL Course on Intellectual Property**

## National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### **Anytime Anywhere Learning**

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







## **Assessment of NPTEL Course on Intellectual Property**



## Progressive Education Society's

## MODERN COLLEGE OF PHARMACY



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Intellectual Property

Date: Jan-Apr 24

Course Code: noc24-hs38

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Mark %
01	TEJAL TALEKAR	46

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





## **Certificate of NPTEL Course on Intellectual Property**



# **NPTEL Online Certification**



(Funded by the MoE, Govt. of India)

This certificate is awarded to TEJAL TALEKAR

for successfully completing the course

## **Intellectual Property**

with a consolidated score of

%

Online Assignments | 13.04/25

Proctored Exam

46

32.63/75

Total number of candidates certified in this course: 1117

Devendra galihal

**Prof. Devendra Jalihal**Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Apr 2024 (12 week course) Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL24HS38S965203129

To verify the certificate



No. of credits recommended: 3 or 4





## Brochure of NPTEL Course on German - I



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

## German - I

By Prof. Milind Brahme | IIT Madras

Learners enrolled: 9105 | Exam registration: 1512



#### ABOUT THE COURSE:

German I is meant to be an introduction to the German language and a basic orientation towards Germany (and to some extent Austria and Switzerland). Learning to understand and articulate oneself in day to day real life situations, and to begin to make sense of Germany as a cultural space are the overall objectives of the course. Serious learners should be able to grasp the basic sentence structure and build a goodfoundational vocabulary through this course.

INTENDED AUDIENCE: Anyone interested in learning elementary German





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About Courses (https://europes.com/s/about)   All Courses	

About Swayam (https://swayam.gov.in/about) | All Courses |

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## Summary

Course Status : Completed

Course Type : Elective

Language for course content : English

Duration : 12 weeks

Category: • Humanities and Social Sciences

Credit Points: 3

 Level :
 Undergraduate

 Start Date :
 22 Jan 2024

 End Date :
 12 Apr 2024

 Enrollment Ends :
 05 Feb 2024

 Exam Registration Ends :
 16 Feb 2024

 Exam Date :
 28 Apr 2024 IST

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

## This is an AICTE approved FDP course

(/#facebook) (/#x) (/#microsoft\_teams) (/#linkedin) (/#whatsapp)

(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourses.nptel.ac.in%2Fnoc24\_hs29%2Fpreview&title=German%20-%20I%20-%20Course)

## Course layout

Week 1: Themes: Introducing oneself and others; Grammar: W questions, personal pronouns, simple sentence, verb conjugation

Week 2: Themes: hobbies, the week, numbers, the alphabet, months, seasons / Grammar : articles , plural, the ve and to be







# List of students of NPTEL Course on German - I



#### **Progressive Education Society's**

# **MODERN COLLEGE OF PHARMACY**



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on German - I

Date: Jan-Apr 24

Course Code: noc24-hs29

Course Duration: 12 Week

List of Students

1 Tamban Mana Littom	Sign	Name of Student	Sr. No
I Temkar iylaya Ottaili	Tental.	Temkar Maya Uttam	1

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# Curriculum of NPTEL Course on German - I

Week 3: The aming places and buildings, means of transport, basic directions / Grammar : definite and indefinite artic (https://swayam.gov.in/) (https://swayam.gov.in/nc\_details/NPTEL)

Week 4: Thenics. 1000, utility, rainily / groceries and meals / Grammar: the accusative

Week 5: Themato เบาะระหล่วง และ เกาะระหล่วง และ เกาะระหล่าง แ

Week 6: Leisure activity, celebrations / Grammar: separable verbs, the accusative, past tense of to have and to be

Week 7: Contacts, writing letters / Grammar: dative

Week 8: My apartment, rooms, furniture, colours / Grammar: changing prepositions

Week 9: Professions / Grammar: perfect tense

Week 10: Clothes / Grammar: perfect tense and dative

Week 11: Health and the body / Grammar: the imperative and modal verbs

Week 12: Holiday and weather

#### **Books and references**

Prescribed Textbook: NETZWERK Deutsch als Fremdsprache A1(Goyal, New Delhi, 2015)

#### Other recommended books:

Schulz-Griesbach: Deutsch als Fremdsprache. Grundstufe in einem Band (for Grammar)

Web Resources:

FACTS ABOUT GERMANY https://www.tatsachen-ueber-deutschland.de/en (https://www.tatsachen-ueber-

deutschland.de/en)

ONLINE GERMAN-ENGLISH DICTIONARY www.leo.org (http://www.leo.org)

#### PRACTICE MATERIAL

https://www.goethe.de/en/spr/kup/prf/prf/sd1/ueb.html (https://www.goethe.de/en/spr/kup/prf/prf/sd1/ueb.html) http://www.deutschkurse- (http://www.deutschkurse- passau.de/JM/images/stories/SKRIPTEN/a1\_skript\_gr.pdf) passau.de/JM/images/stories/SKRIPTEN/a1\_skript\_gr.pdf

https://www.schubert- (https://www.schubert- verlag.de/aufgaben/arbeitsblaetter\_a1\_z/a1\_arbeitsblaetter\_index\_z.htm) verlag.de/aufgaben/arbeitsblaetter\_a1\_z/a1\_arbeitsblaetter\_index\_z.htm

#### Instructor bio



Prof. Milind Brahme

#### IIT Madras

Dr Milind Brahme has an MA, M Phil and a PhD in German language and literature from the Centre of German JNU. He has been on the faculty of IIT Madras since 2003, and has more than 25 years of experience of teachill language and literature in diverse situations and contexts.





# Summary of NPTEL Course on German - I

Week 3: The aming places and buildings, means of transport, basic directions / Grammar : definite and indefinite artic (https:///swayam.gov.in/) (https://swayam.gov.in/nc\_details/NPTEL)

Week 4: Then 165. 1000, drillin, rainily / groceries and meals / Gramma the accusative

Week 6: Leisure activity, celebrations / Grammar: separable verbs, the accusative, past tense of to have and to be

Week 7: Contacts, writing letters / Grammar: dative

Week 8: My apartment, rooms, furniture, colours / Grammar: changing prepositions

Week 9: Professions / Grammar: perfect tense

Week 10: Clothes / Grammar: perfect tense and dative

Week 11: Health and the body / Grammar: the imperative and modal verbs

Week 12: Holiday and weather

#### **Books and references**

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deutschland.de/en)

ONLINE GERMAN-ENGLISH DICTIONARY www.leo.org (http://www.leo.org)

#### PRACTICE MATERIAL

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 $https://www.schubert- (https://www.schubert-verlag.de/aufgaben/arbeitsblaetter_a1_z/a1_arbeitsblaetter_index_z.htm) \\ verlag.de/aufgaben/arbeitsblaetter_a1_z/a1_arbeitsblaetter_index_z.htm$ 

#### Instructor bio



Prof. Milind Brahme

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# Attendance of NPTEL Course on German - I

# National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### Anytime Anywhere Learning

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







# Asssessment of NPTEL Course on German - I



#### Progressive Education Society's

# MODERN COLLEGE OF PHARMACY

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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on German - I

Date: Jan-Apr 24

Course Code: noc24-hs29

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Examination
1	Temkar Maya Uttam	48

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# Certificate of NPTEL Course on German - I



# NPTEL On line Certification



(Funded by the MoE, Govt. of India)

This certificate is awarded to **TEMKAR MAYA UTTAM** 

for successfully completing the course

German - I

with a consolidated score of

48 %

Online Assignments | 17.38/25

Proctored Exam

30.94/75

Total number of candidates certified in this course: 735

Devendra galihal

Prof. Devendra Jalihal Chairperson, Centre for Outreach and Digital Education, IITM Jan-Apr 2024

(12 week course)

Prof. Andrew Thangaraj NPTEL, Coordinator IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL24HS29S1265200689

To verify the certificate



No. of credits recommended: 3 or 4





# **Brochure of NPTEL One Health**



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

#### German - I

By Prof. Milind Brahme | IIT Madras

Learners enrolled: 10392 | Exam registration: 1572



#### ABOUT THE COURSE:

German I is meant to be an introduction to the German language and a basic orientation towards Germany (and to some extent Austria and Switzerland). Learning to understand and articulate oneself in day to day real life situations, and to begin to make sense of Germany as a cultural space are the overall objectives of the course. Serious learners should be able to grasp the basic sentence structure and build a goodfoundational vocabulary through this course.

INTENDED AUDIENCE: Anyone interested in learning elementary German





INDUSTRY SU SWAYAM (Attps://swayam.gov.in/nctdetails/NAMTELAustria and Switzerland	nd/or
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About Swayam (https://swayam.gov.in/about) | All Courses |

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#### Summary

Course Status : Completed

Course Type : Elective

Language for course content : English

Duration : 12 weeks

Category: • Humanities and Social Sciences

Credit Points: 3

 Level :
 Undergraduate

 Start Date :
 24 Jul 2023

 End Date :
 13 Oct 2023

 Enrollment Ends :
 07 Aug 2023

 Exam Registration Ends :
 18 Aug 2023

 Exam Date :
 29 Oct 2023 IST

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

#### This is an AICTE approved FDP course

(/#facebook) (/#x) (/#microsoft\_teams) (/#linkedin) (/#whatsapp)

 $(https://www.addtoany.com/share \#url=https\%3A\%2F\%2Fonline courses.nptel.ac.in\%2Fnoc23\_hs98\%2Fpreview\&title=German\%20-\%201\%20-\%20Course)$ 

# Course layout

Week 1: Themes: Introducing oneself and others; Grammar: W questions, personal pronouns, simple sentence, verb conjugation

Week 2: Themes: hobbies, the week, numbers, the alphabet, months, seasons /Grammar: articles, plural, the verbs to have and to be





# List of student of NPTEL One Health



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# MODERN COLLEGE OF PHARMACY

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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on One Health

Date: Jan-Apr 24

Course Code: noc24-ge25

Course Duration: 12 Week

List of Students

Name of Student	Sign
MRUGAJA RAJENDRA YEOLE	Yedergzugoja.

Dr. A. R. Kumbhar

Dr. P. D. Chaudhari



# **Curriculum of NPTEL One Health**

Week 3: The aming places and buildings, means of transport, basic directions / Grammar : definite and indefinite artice (https:///swayam.gov.in/nc\_details/NPTEL)

Week 4: Thenics. 1000, uning, rainily / groceries and meals / Grammar the accusative

Week 5: Themato-Eyeswaya in chitchis และ ส่งหลัง amagama govgn สายอย่าง me also courses mar : prepositions am, um, von...bips; modal verbs, possessive articles

Week 6: Leisure activity, celebrations / Grammar: separable verbs, the accusative, past tense of to have and to be

Week 7: Contacts, writing letters / Grammar: dative

Week 8: My apartment, rooms, furniture, colours / Grammar: changing prepositions

Week 9: Professions / Grammar: perfect tense

Week 10: Clothes / Grammar: perfect tense and dative

Week 11: Health and the body / Grammar: the imperative and modal verbs

Week 12: Holiday and weather

#### Books and references

Prescribed Textbook: NETZWERK Deutsch als Fremdsprache A1(Goyal, New Delhi, 2015)

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deutschland.de/en)

ONLINE GERMAN-ENGLISH DICTIONARY www.leo.org (http://www.leo.org)

#### PRACTICE MATERIAL

https://www.goethe.de/en/spr/kup/prf/prf/sd1/ueb.html (https://www.goethe.de/en/spr/kup/prf/prf/sd1/ueb.html) http://www.deutschkurse- (http://www.deutschkurse- passau.de/JM/images/stories/SKRIPTEN/a1\_skript\_gr.pdf) passau.de/JM/images/stories/SKRIPTEN/a1\_skript\_gr.pdf

 $https://www.schubert- (https://www.schubert-verlag.de/aufgaben/arbeitsblaetter\_a1\_z/a1\_arbeitsblaetter\_index\_z.htm) \\ verlag.de/aufgaben/arbeitsblaetter\_a1\_z/a1\_arbeitsblaetter\_index\_z.htm$ 

## Instructor bio



Prof. Milind Brahme

#### IIT Madras

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# **Summary of NPTEL One Health**



bout Swayam (https://swayam.gov.in/about) | All Courses |

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Sashirekha Srigiriraju, has an MA in German language and literature from University of Mumbai and a PhD in German language and literature from IITM. She has been a German language instructor at Goethe Institute, Chennai since 2010, and has taught German at IITM as a visiting faculty; at SRM University; at IGCC, and also at Ethiraj College, in Chennai.

#### Course certificate

The course is free to enroll and learn from. But if you want a certificate, you have to register and write the proctored exam conducted by us in person at any of the designated exam centres.

The exam is optional for a fee of Rs 1000/- (Rupees one thousand only).

Date and Time of Exams: 29 October 2023 Morning session 9am to 12 noon; Afternoon Session 2pm to 5pm.

Registration url: Announcements will be made when the registration form is open for registrations.

The online registration form has to be filled and the certification exam fee needs to be paid. More details will be made available when the exam registration form is published. If there are any changes, it will be mentioned then.

Please check the form for more details on the cities where the exams will be held, the conditions you agree to when you fill the form etc.

#### CRITERIA TO GET A CERTIFICATE

Average assignment score = 25% of average of best 8 assignments out of the total 12 assignments given in the course. Exam score = 75% of the proctored certification exam score out of 100

Final score = Average assignment score + Exam score

YOU WILL BE ELIGIBLE FOR A CERTIFICATE ONLY IF AVERAGE ASSIGNMENT SCORE >= 10/25 AND EXAM SCORE >= 30/75. If one of the 2 criteria is not met, you will not get the certificate even if the Final score >= 40/100.

Certificate will have your name, photograph and the score in the final exam with the breakup. It will have the logos of NPTEL and IIT Madras. It will be e-verifiable at nptel.ac.in/noc (http://nptel.ac.in/noc).

Only the e-certificate will be made available. Hard copies will not be dispatched.

Once again, thanks for your interest in our online courses and certification. Happy learning.





#### Attendance of NPTEL One Health

# National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### Anytime Anywhere Learning

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







#### **Assessment of NPTEL One Health**



Progressive Education Society's

# MODERN COLLEGE OF PHARMACY

Accredited by 'NAAC'

'Best College Award' by Savitribai Phule Pune University

Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to Savitribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel. : 020-27661315 Fax : 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on One Health

Date: Jan-Apr 24

Course Code: noc24-ge25

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Examination %
1	MRUGAJA RAJENDRA YEOLE	81

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





# **Certificate of NPTEL One Health**



# Elite line Certification (Funded by the MoE, Govt. of India)

This certificate is awarded to

#### MRUGAJA RAJENDRA YEOLE

for successfully completing the course



#### One Health

with a consolidated score of

Online Assignments

20.94/25 Proctored Exam

59.69/75

Total number of candidates certified in this course: 1543 Jan-Apr 2024 (12 week course)

Dr. Debdutta Bhattacharya Scientist-E, Course Coordinator, ICMR - RMRC, Bhubaneswar

Sanghamitra

Dr. Sanghamitra Pati Director, ICMR – RMRC, Bhubaneswar

Ragin Bull Dr. Rajiv Bahl

Secretary DHR & Director General, Indian Council of Medical Research, New Delhi

Prof. Andrew Thangaraj NPTEL, Coordinator, IIT Madras





स्वास्थ्य अनुसंधान विभाग Department of Health Research



Roll No: NPTEL24GE25S1265201782

To validate the certificate



No. of credits recommended: 3 or 4



# **Brochure of NPTEL on Intellectual Property Rights and Competition Law**



Intro	

#### ABOUT THE COURSE

Competition Law and Intellectual Property Law prima facie appear to have conflicting objectives and goals. While Competition law operates towards facilitating the market growth by curbing anti-competitive practices in the market, IPRs confer exclusive monopoly to the proprietor. However, both are intended towards promoting innovation and consumer welfare. In the ever evolving technology driven society, the recent conflict between the domain of IPRs and completion law pertains to the exercise of rights in IPR affecting competition law. Therefore, in the light of the above intricacies and problems the course aims to discuss the general principles and laws related to Intellectual Property Right and Competition law, The course also provides an overview of the application and operation of both the laws in different jurisdictions and tries to simplify the overlapping domain of IP and Competition Law.

INTENDED AUDIENCE: Students from Law, Management and business studies, and Technical background can benefit from the program

PREREQUISITES: Not necessary. Brief introduction to Intellectual Property Rights may be useful

#### Summary

Course Status: Completed
Course Type: Elective
Language for course content: English
Duration: 8 weeks



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Category: (https://swayam.gov.in/) (https://swayam.gov.in/nc\_details/NPTEL)

· Patents and Intellectual Property Rights

About Swayam (https://swayam.gov.in/about) | All Courses | Credit Points :

Level: Undergraduate/Postgraduate

Start Date : 21 Aug 2023 End Date: 13 Oct 2023 Enrollment Ends: 21 Aug 2023 15 Sep 2023 Exam Registration Ends:

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

This is an AICTE approved FDP course

(/#facebook) (/#x) (/#microsoft\_teams) (/#linkedin) (/#whatsapp)

 $(https://www.addtoany.com/share \#url=https\$3A\$2F\$2Fonline courses.nptel.ac.in\$2Fnoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\$20Property\$20Rights\$20And\$20Competition\$20Law\$20Finoc23\_mg68\$2Fpreview\&title=Intellectual\%20Finoc23\_mg68\$2Fpreview\&title=Intellectual\%20Finoc23\_mg$ 

#### Course layout

Week 1: Function of IPR. Public good, Incentive theory, different forms of IPR

Week 2: Introduction to competition Law, Anti-competitive agreements, Abuse of dominance, Regulation of combinations,

Week 3: The relationship and Interaction between IPR and competition law

Week 4: The economics of US Antitrust law, IP and competition issues. Technology transfer agreements

Week 5: The EU experience with IP and Competition Law

Week 6: Market allocation, Horizontal agreements, Vertical agreements, licensing issues

Week 7: Indian Competition Act and IPR protection

Week 8: Anticompetitive agreement and abuse of dominance in IPR protection, IPR issues in merger and acquisition; Harmonization of IP protection and competition Law in India

#### Books and references

Reference Book (https://drive.google.com/file/d/16U-cK200HZsqtqcwcp\_T4\_WFtUhbycfw/view?usp=sharing)

#### Instructor bio









# List of Students of NPTEL on Intellectual Property Rights and Competition Law



#### Progressive Education Society's

# **MODERN COLLEGE OF PHARMACY**

Accredited by 'NAAC'

'Best College Award' by Savitribai Phule Pune University

Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to Savitribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S, Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: NPTEL Intellectual Property Rights and Competition Law

Date: Aug-Oct 23

Course Code: noc23-mg68

Course Duration: 08 Week

#### List of Students

Sr. No	Name of Student	Sign
1	AJAY PRAKASH PATANGE	A: Palange
2	ABHIJEET PRABHAKAR MORE	79020
3	PAVAN BABURAO NAVGHARE	Tgose towar.
4	PRATHMESH ASHOK NALE	Nalep.
5	RAHUL GMABHIRE	Palmil
6	WAGHMARE SHIVSHANKAR RAMRAO	Shirsharlanc
7	RENUKA GANGADHAR ZAREKAR	Fanker

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari

0





# Curriculum of NPTEL on Intellectual Property Rights and Competition Law

Category: (https://swayam.gov.in/) (https://swayam.gov.in/nc\_details/NPTEL)

Patents and Intellectual Property Rights

About Swayam (https://swayam.gov.in/about) | All Courses |

Credit Points :

Level: Undergraduate/Postgraduate

 Start Date :
 21 Aug 2023

 End Date :
 13 Oct 2023

 Enrollment Ends :
 21 Aug 2023

 Exam Registration Ends :
 15 Sep 2023

 Exam Date :
 29 Oct 2023 IST

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

#### This is an AICTE approved FDP course

(/#facebook) (/#x) (/#microsoft\_teams) (/#linkedin) (/#whatsapp)

(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourses.nptel.ac.in%2Fnoc23\_mg68%2Fpreview&title=Intellectual%20Property%20Rights%20And%20Competition%20Law%20%20Course)

#### Course layout

Week 1: Function of IPR. Public good, Incentive theory, different forms of IPR

Week 2: Introduction to competition Law, Anti-competitive agreements, Abuse of dominance, Regulation of combinations,

Week 3: The relationship and Interaction between IPR and competition law

Week 4: The economics of US Antitrust law, IP and competition issues, Technology transfer agreements

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#### Books and references

Reference Book (https://drive.google.com/file/d/16U-cK2O0HZsqtqcwcp\_T4\_WFtUhbycfw/view?usp=sharing)

#### Instructor bio









# **Summary of NPTEL on Intellectual Property Rights and Competition Law**

Category: (https://swayam.gov.in/) (https://swayam.gov.in/nc\_details/NPTEL)

Patents and Intellectual Property Rights

About Swayam (https://swayam.gov.in/about) | All Courses | Credit Points :

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#### Books and references

 $Reference\ Book\ (https://drive.google.com/file/d/16U-cK2OOHZsqtqcwcp\_T4\_WFtUhbycfw/view?usp=sharing)$ 

#### Instructor bio









# Attendance of NPTEL on Intellectual Property Rights and Competition Law

# National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

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NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

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# Assessment of NPTEL on Intellectual Property Rights and Competition Law



Progressive Education Society's

# MODERN COLLEGE OF PHARMACY



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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL Intellectual Property Rights and Competition Law

Date: Aug-Oct 23

Course Code: noc23-mg68

Course Duration: 08 Week

#### List of Students

Sr. No	Name of Student	Exam %
1	AJAY PRAKASH PATANGE	53
2	ABHIJEET PRABHAKAR MORE	49
3	PAVAN BABURAO NAVGHARE	54
4	PRATHMESH ASHOK NALE	51
5	RAHUL GMABHIRE	41
6	WAGHMARE SHIVSHANKAR RAMRAO	52
7	RENUKA GANGADHAR ZAREKAR	64

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





# Certificate of NPTEL on Intellectual Property Rights and Competition Law



# NPTEL Online Certification (Funded by the MoE, Govt. of India)



# This certificate is awarded to AJAY PRAKASH PATANGE

for successfully completing the course

#### **Intellectual Property Rights and Competition Law**

with a consolidated score of

**53** 9

Online Assignments | 17.08/25

Proctored Exam

36/75

Total number of candidates certified in this course: 1762

Aug-Oct 2023

(8 week course)

Banayi

Prof. Haimanti Banerji Coordinator, NPTEL IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL23MG68S845104118

To verify the certificate



No. of credits recommended: 2 or 3



# Brochure of NPTEL on German - I



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

#### German - I

By Prof. Milind Brahme | IIT Madras

Learners enrolled: 10392 | Exam registration: 1572



#### ABOUT THE COURSE:

German I is meant to be an introduction to the German language and a basic orientation towards Germany (and to some extent Austria and Switzerland). Learning to understand and articulate oneself in day to day real life situations, and to begin to make sense of Germany as a cultural space are the overall objectives of the course. Serious learners should be able to grasp the basic sentence structure and build a goodfoundational vocabulary through this course.

**INTENDED AUDIENCE:** Anyone interested in learning elementary German





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About Swayam (https://swayam.gov.in/about) | All Courses |

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#### Summary

Course Status : Completed

Course Type : Elective

Language for course content : English

Duration : 12 weeks

Category: 
• Humanities and Social Sciences

Credit Points: 3

 Level :
 Undergraduate

 Start Date :
 24 Jul 2023

 End Date :
 13 Oct 2023

 Enrollment Ends :
 07 Aug 2023

 Exam Registration Ends :
 18 Aug 2023

 Exam Date :
 29 Oct 2023 IST

Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket.

This is an AICTE approved FDP course

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 $(https://www.addtoany.com/share \#url=https\%3A\%2F\%2Fonline courses.nptel.ac.in\%2Fnoc23\_hs98\%2Fpreview\&title=German\%20-\%201\%20-\%20Course)$ 

#### Course layout

Week 1: Themes: Introducing oneself and others; Grammar: W questions, personal pronouns, simple sentence, verb conjugation

Week 2: Themes: hobbies, the week, numbers, the alphabet, months, seasons /Grammar: articles, plural, the verbs to have and to be





# List of students of NPTEL on German - I



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Directorate of Technical Education, Mumbai (MS), Permanently affiliated to
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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on German - I

Date: Jul-Oct 2023

Course Code: noc24-hs29

Course Duration: 12 Week

List of Students

Sr. No	Name of Student	Sign
1	Vendanti Atul Gulhane	Jedanti

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P, D, Chaudhari





# Curriculum of NPTEL on German - I

aming places and buildings, means of transport, basic directions / Grammar : definite and indefinite artic swavam.gov.in/nc\_details/NPTEL)

Week 4: Thenres. 1000, armin, rainily / groceries and meals / Grammar: the accusative

possessive articles

Week 6: Leisure activity, celebrations / Grammar: separable verbs, the accusative, past tense of to have and to be

Week 7: Contacts, writing letters / Grammar: dative

Week 8: My apartment, rooms, furniture, colours / Grammar: changing prepositions

Week 9: Professions / Grammar: perfect tense

Week 10: Clothes / Grammar: perfect tense and dative

Week 11: Health and the body / Grammar: the imperative and modal verbs

Week 12: Holiday and weather

#### Books and references

Prescribed Textbook: NETZWERK Deutsch als Fremdsprache A1(Goyal, New Delhi, 2015)

#### Other recommended books:

ABOUT

Schulz-Griesbach: Deutsch als Fremdsprache. Grundstufe in einem Band (for Grammar)

Web Resources:

FACTS

https://www.tatsachen-ueber-deutschland.de/en (https://www.tatsachen-ueber-

deutschland.de/en)

ONLINE GERMAN-ENGLISH DICTIONARY www.leo.org (http://www.leo.org)

**GERMANY** 

#### PRACTICE MATERIAL

https://www.goethe.de/en/spr/kup/prf/prf/sd1/ueb.html (https://www.goethe.de/en/spr/kup/prf/prf/sd1/ueb.html)  $http://www.deutschkurse- \\ passau.de/JM/images/stories/SKRIPTEN/a1\_skript\_gr.pdf)$ passau.de/JM/images/stories/SKRIPTEN/a1\_skript\_gr.pdf

https://www.schubert- (https://www.schubert- verlag.de/aufgaben/arbeitsblaetter\_a1\_z/a1\_arbeitsblaetter\_index\_z.htm) verlag.de/aufgaben/arbeitsblaetter\_a1\_z/a1\_arbeitsblaetter\_index\_z.htm

#### Instructor bio



Prof. Milind Brahme

**IIT Madras** 

Dr Milind Brahme has an MA, M Phil and a PhD in German language and literature from the Centre of German Studies, JNU.He has been on the faculty of IIT Madras since 2003, and has more than 25 years of experience of teaching German language and literature in diverse situations and contexts.





# Summary of NPTEL on German - I

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About Swayam (https://swayam.gov.in/	fabout)   All Courses   ()
Course Status :	Completed
Course Type :	Elective
Language for course content :	English
Duration :	12 weeks
Category:	Humanities and Social Sciences
Credit Points :	3
Level:	Undergraduate
Start Date :	24 Jul 2023
End Date :	13 Oct 2023
Enrollment Ends :	07 Aug 2023
Exam Registration Ends :	18 Aug 2023
Exam Date :	29 Oct 2023 IST
Note: This exam date is subject to change based on seat a	vailability. You can check final exam date on your hall ticket.
This is an AICTE approved FDP course	
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# Course layout

%201%20-%20Course)

Week 1: Themes: Introducing oneself and others; Grammar: W questions, personal pronouns, simple sentence, verb conjugation

Week 2: Themes: hobbies, the week, numbers, the alphabet, months, seasons / Grammar: articles, plural, the verbs to have and to be





# Attendance of NPTEL on German - I

# National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

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#### **Anytime Anywhere Learning**

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As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







# Assessment of NPTEL on German - I



#### Progressive Education Society's

# MODERN COLLEGE OF PHARMACY



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Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314

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Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on German - I

Date: German - I

Principal

Course Code: noc24-hs29

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Mark %
01	Vendanti Atul Gulhane	61

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# Certificate of NPTEL on German - I



# Elite



(Funded by the MoE, Govt. of India)

This certificate is awarded to

**VEDANTI ATUL GULHANE** 

for successfully completing the course

German - I

with a consolidated score of

61

Online Assignments 24.56/25

Proctored Exam 36.75/75

Total number of candidates certified in this course: 751

Prof. Devendra Jalihal Chairperson, Centre for Outreach and Digital Education, IITM Jul-Oct 2023

(12 week course)

Prof. Andrew Thangaraj NPTEL, Coordinator





Roll No: NPTEL23HS98S845103073

To verify the certificate



No. of credits recommended: 3 or 4





# **Brochure of NPTEL on Principles of Organic Synthesis**

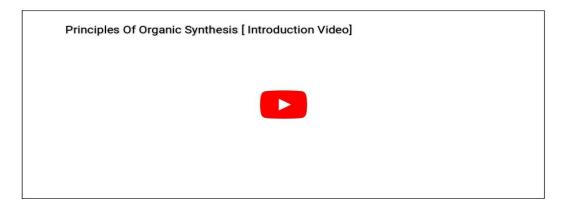


Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

#### **Principles Of Organic Synthesis**

By Prof. T Punniyamurthy | IIT Guwahati

Learners enrolled: 997 | Exam registration: 129



#### ABOUT THE COURSE:

The course has nine modules starting from the formation of acid-catalyzed carbon-carbon bond formation to application of the modern transition metal catalysis. Students of graduate and post graduate preparing for NET and GATE examination will find this course extremely useful.

INTENDED AUDIENCE : M.Sc Students/faculty

PREREQUISITES: BSc (Chemistry)

INDUSTRY SUPPORT: Dr. Reddy's Laboratory, Syngenta, etc

#### Summary



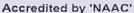


# List of students of NPTEL on Principles of Organic Synthesis



#### Progressive Education Society's

# MODERN COLLEGE OF PHARMACY



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Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to Savitribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel.: 020-27661315 Fax: 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Principles of Organic Synthesis

Date: Jul-Oct 23

Course Code: noc23-cy47

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Sign
1	SHUBHANGI NAVNATH SHINDE	Shirdes.

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# **Curriculum of NPTEL on Principles of Organic Synthesis**

Course Type : (https://swayam.gov.in/) (https://swayam.gov.in/)	completed ://swayam.gov.in/nc_details/NPTEL) Core	
Language for course coateut Swayam (https://swayam.gov.in/about)   All Courses	English ()	
Duration :	12 weeks	
Category:	Chemistry	
Credit Points:	3	
Level:	Postgraduate	
Start Date :	24 Jul 2023	
End Date :	13 Oct 2023	
Enrollment Ends :	07 Aug 2023	
Exam Registration Ends :	18 Aug 2023	
Exam Date:	29 Oct 2023 IST	
Note: This exam date is subject to change based on seat availability. You can check final exam	date on your hall ticket.	
This is an AICTE approved FDP course		
(/#facebook) (/#x) (/#microsoft_teams) (/#linkedin) (/#whatsa	pp)	
(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourses.nntel.ac.in%2Fnoc23.cv47%2F	Foreview&title=Principles%200f%200rganic%20Synthesis%20	

## Course layout

%20Course)

- Week 1: Formation of Aliphatic Carbon-Carbon Bonds: Base Catalyzed Reactions
- Week 2: Formation of Aliphatic Carbon-Carbon Bonds: Acid Catalyzed Reactions
- Week 3: Organometallic Reagents
- Week 4: Formation of Aliphatic Carbon-Nitrogen Bonds
- Week 5: Electrophilic Aromatic Substitution
- Week 6: Nucleophilic Aromatic Substitution
- Week 7 : Aromatic Diazonium Salts
- Week 8 : Molecular Rearrangements
- Week 9: Reagents Containing Phosphorus, Sulfur, Silicon, Boron or Tin
- Week 10 :Free-Radical Reactions
- Week 11 :Reagents Containing Phosphorus, Sulfur, Silicon, Boron or Tin
- Week 12 :Free-Radical Reactions





# **Summary of NPTEL on Principles of Organic Synthesis**



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

#### **Principles Of Organic Synthesis**

By Prof. T Punniyamurthy | IIT Guwahati

Learners enrolled: 997 | Exam registration: 129



#### ABOUT THE COURSE:

The course has nine modules starting from the formation of acid-catalyzed carbon-carbon bond formation to application of the modern transition metal catalysis. Students of graduate and post graduate preparing for NET and GATE examination will find this course extremely useful.

 $\textbf{INTENDED AUDIENCE}: M.Sc \ Students/faculty$ 

PREREQUISITES: BSc (Chemistry)

INDUSTRY SUPPORT: Dr. Reddy's Laboratory, Syngenta, etc

#### Summary





# **Attendance of NPTEL on Principles of Organic Synthesis**

# National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### **Anytime Anywhere Learning**

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







# **Assessment of NPTEL on Principles of Organic Synthesis**



#### Progressive Education Society's

# MODERN COLLEGE OF PHARMACY

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AC'
THE Pune University

Accredited by 'NAAC'
'Best College Award' by Savitribai Phule Pune University

Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to SavItrIbal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. E-mail : mcopnigdi44@gmail.com Website : www.mcop.org.in Pro

Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Principles of Organic Synthesis

Date: Jul-Oct 23

Principal

Course Code: noc23-cy47

Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Exam %
1	SHUBHANGI NAVNATH SHINDE	52

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





# **Certificate of NPTEL on Principles of Organic Synthesis**



# **NPTEL Online Certification**



(Funded by the MoE, Govt. of India)

This certificate is awarded to SHUBHANGI NAVNATH SHINDE

for successfully completing the course

**Principles of Organic Synthesis** 

with a consolidated score of

52

%

Online Assignments | 10.28/25

5 Proctored Exam

42/75

Total number of candidates certified in this course: 61

Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat
Head, Centre for Educational Technology



Indian Institute of Technology Guwahati

Roll No: NPTEL23CY47S745101468

To verify the certificate



No. of credits recommended: 3 or 4

# **Brochure of NPTEL on Reagents in Organic Synthesis**



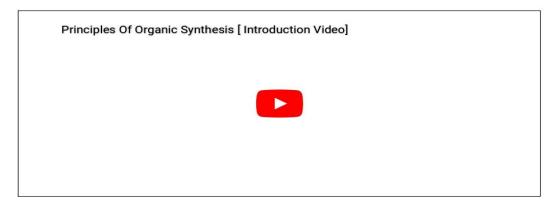
About Swayam (https://swayam.gov.in/about) | All Courses | SIGN-IN / REGISTER ()

Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

# **Principles Of Organic Synthesis**

By Prof. T Punniyamurthy | IIT Guwahati

Learners enrolled: 997 | Exam registration: 129



### ABOUT THE COURSE:

The course has nine modules starting from the formation of acid-catalyzed carbon-carbon bond formation to application of the modern transition metal catalysis. Students of graduate and post graduate preparing for NET and GATE examination will find this course extremely

INTENDED AUDIENCE: M.Sc Students/faculty

PREREQUISITES: BSc (Chemistry)

INDUSTRY SUPPORT: Dr. Reddy's Laboratory, Syngenta, etc

#### Summary

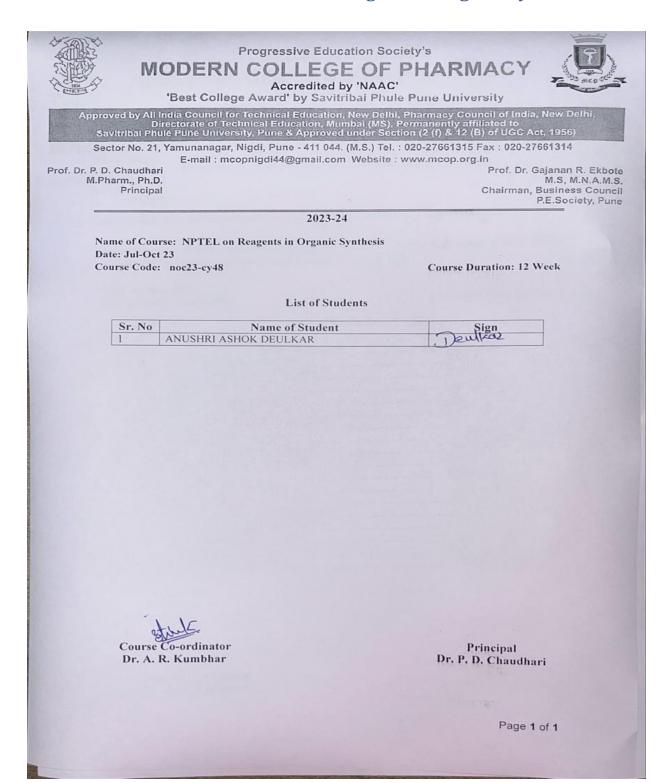
Progressive Education Society's Modern College of Pharmacy, Nigdi, Pune 411044 **Back to Index** 







# List of students of NPTEL on Reagents in Organic Synthesis







# **Curriculum of NPTEL on Reagents in Organic Synthesis**

Course Status :	inttps://swayan	n.gov.in/) 🍕	(https:/	Completed /swayam.gov.in/nc_details/NP	TEL)
Course Type :	no ———			Core	
Language for course coatheant Sway	am (https://swayam.gov.in	ı/about)   All Co	ourses	English	0
Duration :				12 weeks	
Category:				Chemistry	
Credit Points :				3	
Level:				Postgraduate	
Start Date :				24 Jul 2023	
End Date :				13 Oct 2023	
Enrollment Ends :				07 Aug 2023	
Exam Registration Ends :				18 Aug 2023	
Exam Date :				29 Oct 2023 IST	
Note: This exam date is subject to cha	ange based on seat availabili	ty. You can check	final exam d	late on your hall ticket.	
This is an AICTE approved FDP co	ourse				
(/#facebook) (/#x)	(/#microsoft_teams)	(/#linkedin)	(/#whatsap	p)	
(https://www.addtoany.com/share#url=h	nttps%3A%2F%2Fonlinecourses	.nptel.ac.in%2Fnoc	23_cy47%2Fp	preview&title=Principles%200f%	%20Organic%20Synthesis%20-

# Course layout

- Week 1: Formation of Aliphatic Carbon-Carbon Bonds: Base Catalyzed Reactions
- Week 2: Formation of Aliphatic Carbon-Carbon Bonds: Acid Catalyzed Reactions
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- Week 4: Formation of Aliphatic Carbon-Nitrogen Bonds
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- Week 7: Aromatic Diazonium Salts
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- Week 9: Reagents Containing Phosphorus, Sulfur, Silicon, Boron or Tin
- Week 10 :Free-Radical Reactions
- Week 11 :Reagents Containing Phosphorus, Sulfur, Silicon, Boron or Tin
- Week 12: Free-Radical Reactions





# **Summary of NPTEL on Reagents in Organic Synthesis**

Course Status :	SW2V2	🊹 (https://swayar	m.gov.in/) 🏅		Completed //swayam.gov.in/nc_details/NP	TEL)
Course Type :	firfac wrest, area was			Asses	Core	·
Language for course co	httent Swaya	am (https://swayam.gov.ir	n/about)   All Co	ourses	English	()
Duration :					12 weeks	
Category:					Chemistry	
Credit Points :					3	
Level :					Postgraduate	
Start Date :					24 Jul 2023	
End Date :					13 Oct 2023	
Enrollment Ends :					07 Aug 2023	
Exam Registration Ends	:				18 Aug 2023	
Exam Date :					29 Oct 2023 IST	
Note: This exam date is s	ubject to cha	nge based on seat availabil	ity. You can check	final exam o	late on your hall ticket.	
This is an AICTE appro	oved FDP co	urse				
(/#facebook)	(/#x)	(/#microsoft_teams)	(/#linkedin)	(/#whatsap	p)	
(https://www.addtoany.com %20Course)	n/share#url=h	ttps%3A%2F%2Fonlinecourse	s.nptel.ac.in%2Fnoo	:23_cy47%2F <sub>I</sub>	preview&title=Principles%200f%	620Organic%20Synthesis%20

# Course layout

- Week 1 : Formation of Aliphatic Carbon-Carbon Bonds: Base Catalyzed Reactions
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# **Attendance of NPTEL on Reagents in Organic Synthesis**

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# **Assessment of NPTEL on Reagents in Organic Synthesis**



Progressive Education Society's

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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Reagents in Organic Synthesis

Date: Jul-Oct 23

Course Code: noc23-cy48 Course Duration: 12 Week

#### List of Students

Sr. No	Name of Student	Examination %
1	ANUSHRI ASHOK DEULKAR	58

Course Co-ordinator Dr. A. R. Kumbhar Principal Dr. P. D. Chaudhari





# **Certificate of NPTEL on Reagents in Organic Synthesis**



# **NPTEL Online Certification**



(Funded by the MoE, Govt. of India)

# This certificate is awarded to **ANUSHRI ASHOK DEULKAR**

for successfully completing the course

# Reagents in Organic Synthesis

with a consolidated score of

Online Assignments 21.19/25

58

Proctored Exam | 36.74/75

Total number of candidates certified in this course: 50

Jul-Oct 2023

(12 week course)

Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati



Indian Institute of Technology Guwahati



Roll No: NPTEL23CY48S645102438

To verify the certificate



No. of credits recommended: 3 or 4





# Brochure of Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

# Current Regulatory Requirements For Conducting Clinical Trials In India For Investigational New Drugs/New Drug (Version 3.0)

By Dr D. K. Sable, Dr Rubina Bose, Professor Y. K. Gupta, Dr Nandini K. Kumar, Late Shri Arun Kumar B. Ramteke, Dr Sucheta Banerjee Kurundkar, Dr M. Vishnu V. Rao, Dr Atul Juneja, Dr Tulsi Adhikari, Dr Mohua Maulik | CDSA,THSTI,DBT

Learners enrolled: 2794 | Exam registration: 731



#### ABOUT THE COURSE

The course is developed by Clinical Development Services Agency (CDSA) in partnership with the Central Drugs Standard Control Organisation (CDSCO). The course is developed with NPTEL.

CDSA is a center of the Translational Health Science & Technology Institute (THSTI). THSTI is an autonomous institution under the Department of Biotechnology (DBT), Ministry of Science & Technology, Government of India. CDSA has a national mandate to enhance the capacity and capability of clinical development in India.

CDSCO is the National Regulatory Authority (NRA) of India. It is under the Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India. CDSCO along with the state regulators are jointly responsible for grant of licenses of certain specialized categories of critical drugs such as blood and blood products, intravenous fluids, vaccines, and sera.

It is a pre-requisite for anyone carrying out a clinical trial or involved in new drug development or research for the purpose of seeking regulatory approval in India to know about the current regulatory requirements. This is even more pertinent given the many changes and amendments in the clinical trial and new drug approval rules and regulations in India in recent years.

Version 1 of this online course was launched in early 2019 with 12 lectures as a four-week course. It was attended by 1047 participants during Jan - Mar 2019. On March 19, 2019, the New Drugs and Clinical Trials (NDCT) Rules, 2019 were released. The current online course (Version 2) incorporates the changes and amendments that are part of these latest rules. A series of brainstorming sessions were conducted by CDSA with CDSCO for incorporating the new updates and the feedback received from version 1 participants. It also includes key issues that surfaced during the discussions at the six face-to-face programs (National workshop on regulatory compliance for accelerating innovations) that were conducted by CDSA (Dec 2018-July 2019) under the aegis of DBT, CDSCO, NITI Aayog, and BIRAC-NBM and inputs from the interactive session on NDCT Rules conducted by CDSA with CDSCO at THSTI (Advanced).

This course (version 3) has 24 lectures spread over a period of 8 weeks. This course also involves 8 weekly assignments and a final exit assessment. Only those wishing to undertake the certification exams (which requires payment of a fee) need to opt for the latter. This online course is free. The exam is optional for a fee.







COURSE OBJECTIVES AND EXPECTED LEA

Upon completion of this online course, the Swayam ducting clinical trials of the new drug of investigational new drug (IND) to be manufactured or imported in India

- Essential documents required for the consultational stress of the courses |
- participants (2017), etc

TARGET AUDIENCE: The course is suitable for individuals, both from industry (pharma, biotech, contract research organization) and academia who are involved or interested in Clinical trial and new drug development (R & D/manufacture/ import) in India. This includes investigators, regulatory affairs personnel, human ethics committee members, clinical trial team members/researchers.

#### PRE-REQUISITES:

There is no pre-requisite to undertake this course. It is suitable for personnel with scientific/medical background (BSc/MSc/PhD/B Pharm/M Pharm/BAMS/BHMS/BDS/MDS/MBBS/MD/DM). Personnel working in the area of drug development/clinical trials/research may benefit from this course.

#### ORGANIZATIONS THAT WILL VALUE THE COURSE:

Pharmaceutical companies, Research/Academic Institutions, Biomedical research organizations, Regulatory authorities, Medical colleges, Contract research organizations

This is a RE-RUN Course, hence all the material provided is as per the earlier course, the reading material is the same for version 2.0 and version 3.0. The assignments, exit assessment, etc. are new. In Version 3.0, we are also trying to have a LIVE session (pre-scheduled) and have add-on lectures. All these will be informed. We would like to hear from you more so that we can continually improve.

Completed

# Summary Course Status

Course Type : English Language for course content: Duration: 8 weeks Category: Multidisciplinary Credit Points: Level: Undergraduate/Postgraduate Start Date 24 Jul 2023 End Date: 15 Sep 2023 07 Aug 2023 Enrollment Ends: Exam Registration Ends : 21 Aug 2023 24 Sep 2023 IST Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket. This is an AICTE approved FDP course (/#linkedin) (/#microsoft\_teams)

(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourses.nptel.ac.in%2Fnoc23\_ge38%2Fpreview&title=Current%20Regulatory%20Requirements%20For%20Conducting%20Clinical%20Trials%20In%20In

#### Course layout

Week 1: Lecture 0: Course overview

Lecture 1: Overview of Indian drug regulatory system Lecture 2: Overview of drugs & cosmetics Act and Rules thereunder







# List of students of Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)



#### Progressive Education Society's

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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S., M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: NPTEL on Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)

Date: Jul-Sept 23

Course Code: noc23-ge38

Course Duration: 08 Week

#### List of Students

Sr. No	Name of Student	Sign
01	ALFIYA MAHIBUB BIRADAR	ALF. Ya.
02	PATIL ANIMESH RAMKRUSHNA	Patil. A:
03	ANJALI SUNIL GAIKWAD	anjale.
04	ARPITA VITTHAL YALSANGI	Av yalo ang)
05	SHAIKH FIZA VAHED	Shaikh.
06	HARSHALI DURGADAS DISHWARE	Modera Jako
07	JADHAV MOHINI BHARAT	, I work out out
08	SNEHAL HANAMANT KASTURE	Kastus
09	GANGURDE MADHURI ASHOK	Jiadunei'
10	PALLAVI	pallaur
11	POOJA NANA SAWANT	70925
12	PRAJAKTA BAJRANG JAGTAP	Jarrah
13	VERNEKAR PURVA VIGHNESHWAR	Rvernett
14	RASIKA PRAKASH BABHULKAR	paser
15	SADHANA SANDEEP PAWAR	Sadnar
16	GADHAVE TRUPTI BHAUSAHEB	Gadnaret
17	TEMKAR MAYA UTTAM	Mayar Jenkar

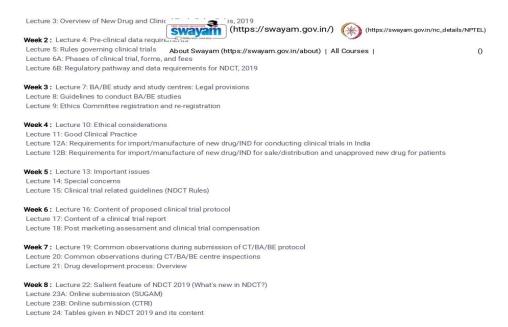
Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# **Curriculum of Current Regulatory Requirements for Conducting Clinical** Trials in India for Investigational New Drugs/New Drug (Version 3.0)



#### Books and references

1. Drugs & Cosmetics Act, 1940 and Rules thereunder 1945, New Drugs and Clinical Trial Rules, 2019, Related Guidance documents available at CDSCO website.

#### Instructor bio

- 1. Dr D. K. Sable, Deputy Drugs Controller (India), CDSCO HQ, New Delhi
- 2. Dr Rubina Bose, Deputy Drugs Controller (India), CDSCO, West Zone, Mumbai
- 3. Professor Y. K. Gupta, Principal Adviser DNDi; Former Dean (Academics), AlIMS, New Delhi, Former Adviser, CDSA-THSTI, DBT
- 4. Dr Nandini K. Kumar, Former Deputy Director General Sr. Grade, Indian Council of Medical Research (ICMR), Adjunct Faculty, CDSA, THSTI, DBT
- 5. Late Shri Arun Kumar B. Ramteke, Former Joint Drugs Controller (India), CDSCO; Consultant, Regulatory Affairs, CDSA, THSTI, DBT
- 6. Dr Sucheta Banerjee Kurundkar, Principal Scientist II Training, CDSA, THSTI, DBT
- 7. Dr M. Vishnu V. Rao, Former Scientist G & Director, ICMR National Institute of Medical Statistics (NIMS); Administrator, Clinical Trial Registry India (CTRI)
- 8. Dr Atul Juneja, Scientist E, ICMR-NIMS; Coordinator, CTRI
- 9. Dr Tulsi Adhikari, Scientist E, ICMR-NIMS; Coordinator, CTRI
- 10. Dr Mohua Maulik, Consultant, ICMR-NIMS

## 1) COURSE DEVELOPMENT TEAM:

- 1. Dr Sucheta Banerjee Kurundkar, Principal Scientist II Training, CDSA, THSTI, DBT
- 2. Late Shri Arun Kumar B. Ramteke, Former Joint Drugs Controller (India), CDSCO; Consultant, Regulatory Affairs, CDSA, THSTI, DBT
- 3. Professor.Dr. Nitya Wadhwa, Senior Professor, THSTI and Faculty In-Charge, CDSA, THSTI, DBT
- 4. Professor Usha Menon, Adjunct Professor CDSA, THSTI, DBT, Professor MRC CTU at University College London

#### 2) TEACHING ASSISTANCE:

1. Ms Vandana Chawla, Administrator Training, CDSA, THSTI, DBT







# Summary of Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)

COURSE OBJECTIVES AND EXPECTED LEA

Upon completion of this online course, the Swayam ducting clinical trials of the new Drugs and Clinical Trials I and a course of the land ducting clinical trials of the new drug of investigational new drug (IND) to be manufactured or imported in India

- Essential documents required for the conduct swid part (NAM Courses | ()
   Essence and purpose of important trial-related guidelines, such as Good Clinical Practice (GCP), national ethical guidelines for biomedical & health research for human participants (2017), etc

TARGET AUDIENCE: The course is suitable for individuals, both from industry (pharma, biotech, contract research organization) and academia who are involved or interested in Clinical trial and new drug development (R & D/manufacture/ import) in India. This includes investigators, regulatory affairs personnel, human ethics committee members, clinical trial team

#### PRE-REQUISITES:

There is no pre-requisite to undertake this course. It is suitable for personnel with scientific/medical background (BSc/MSc/PhD/B Pharm/M Pharm/BAMS/BHMS/BDS/MDS/MBBS/MD/DM). Personnel working in the area of drug development/clinical trials/research may benefit from this course.

#### ORGANIZATIONS THAT WILL VALUE THE COURSE:

Pharmaceutical companies, Research/Academic Institutions, Biomedical research organizations, Regulatory authorities, Medical colleges, Contract research organizations are contracted as a contract research organization organization and the contract research organization organi

This is a RE-RUN Course, hence all the material provided is as per the earlier course, the reading material is the same for version 2.0 and version 3.0. The assignments, exit assessment, etc. are new. In Version 3.0, we are also trying to have a LIVE session (pre-scheduled) and have add-on lectures. All these will be informed. We would like to hear from you more so that we can continually improve.

#### Summary

Course Status Completed Course Type: Elective Language for course content: English Duration: 8 weeks Category: Multidisciplinary Credit Points: Level: Undergraduate/Postgraduate Start Date 24 Jul 2023 End Date: 15 Sep 2023 Enrollment Ends : 07 Aug 2023 Exam Registration Ends: 21 Aug 2023 Exam Date: 24 Sep 2023 IST Note: This exam date is subject to change based on seat availability. You can check final exam date on your hall ticket. This is an AICTE approved FDP course (/#microsoft\_teams) (/#facebook) (/#x) (/#linkedin) (/#whatsapp)

(https://www.addto.any.com/share#url=https%3A%2F%2Fonlinecourses.nptel.ac.in%2Fnoc23\_ge38%2Fpreview&title=Current%20Regulatory%20Requirements%20For%20Conducting%20Clinical%20Trials%20In%20Ir

#### Course layout

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# **Attendance of Current Regulatory Requirements for Conducting Clinical** Trials in India for Investigational New Drugs/New Drug (Version 3.0)

# National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

The Online Education which was started with NPTEL for Technology Courses has now been broadened to include all other disciplines such as Humanities, Social Sciences and Management in the indigenous online platform SWAYAM.

NPTEL has becomes a part of SWAYAM, all the NPTEL Local Chapters have been redesignated as SWAYAM - NPTEL Local Chapter.

#### **Anytime Anywhere Learning**

Massive Open Online Courses (MOOC) is essentially an asynchronous platform and a process for teaching through pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes, which are usually online and provide self-assessment in regular intervals during learning.

The enrolment to and learning from these courses involves no cost.

Following these online courses, an in-person, proctored certification exam is conducted across 100+ cities within India and a certificate is provided through the participating institutions and industry, when applicable.

As it is MOOC type of course conducted by Government body open to all and attended by enrolled candidate from any where and anytime.







# Assessment of Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)



## Progressive Education Society's

# MODERN COLLEGE OF PHARMACY



Accredited by 'NAAC'

'Best College Award' by Savitribai Phule Pune University

Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to SavItribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

Sector No. 21, Yamunanagar, Nigdi, Pune - 411 044. (M.S.) Tel. : 020-27661315 Fax : 020-27661314

E-mail: mcopnigdi44@gmail.com Website: www.mcop.org.in

Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

#### 2023-24

Name of Course: NPTEL on Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)

Date: Jul-Sept 23

Course Code: noc23-ge38 Course Duration: 08 Week

#### List of Students

Sr. No	Name of Student	Examination %
01	ALFIYA MAHIBUB BIRADAR	72
02	PATIL ANIMESH RAMKRUSHNA	60
03	ANJALI SUNIL GAIKWAD	62
04	ARPITA VITTHAL YALSANGI	76
05	SHAIKH FIZA VAHED	62
06	HARSHALI DURGADAS DISHWARE	71
07	JADHAV MOHINI BHARAT	68
08	SNEHAL HANAMANT KASTURE	71
09	GANGURDE MADHURI ASHOK	56
10	PALLAVI	77
11	POOJA NANA SAWANT	72
12	PRAJAKTA BAJRANG JAGTAP	75
13	VERNEKAR PURVA VIGHNESHWAR	68
14	RASIKA PRAKASH BABHULKAR	72
15	SADHANA SANDEEP PAWAR	68
16	GADHAVE TRUPTI BHAUSAHEB	66
17	TEMKAR MAYA UTTAM	70

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# Certificate of Current Regulatory Requirements for Conducting Clinical Trials in India for Investigational New Drugs/New Drug (Version 3.0)





PATIL ANIMESH RAMKRUSHNA for successfully completing the course

**Current Regulatory Requirements for Conducting Clinical Trials in** 

India for Investigational New Drugs/New Drug (Version 3.0)

with a consolidated score of 60

Online Assignments 21.67/25 | Proctored Exam 38.5/75

Total number of candidates certified in this course: 596

Devendra galihal Prof. Devendra Jalihal Chairperson, Centre for Outreach and Digital Education, IITM

Jul-Sep 2023 (8 week course) Prof. Andrew Thangaraj



Roll No: NPTEL23GE38S45051546

To verify the certificate

No. of credits recommended: 2 or 3





# **Brochure of Health Research Fundamentals**



Home (https://swayam.gov.in) > Courses (https://swayam.gov.in/explorer) >

#### **Health Research Fundamentals**

By Multi Faculty | National Institute of Epidemiology

Learners enrolled: 3575 | Exam registration: 1059



#### ABOUT THE COURSE:

ICMR - National Institute of Epidemiology is offering online programmes on conduct of human bio-medical research. The programme will be offered as NIE-ICMR e-Certificate – NIeCer - Courses. The first in this series, NIeCer 101:Health Research Fundamentals, is a basic level course in health research methods. It will explain the fundamental concepts in epidemiology and bio-statistics related to research methods. This course will provide an overview of steps and principles for designing bio-medical and health research studies among human participants. We expect this course to be useful for individuals interested in pursuing health research in the roles of study investigators, clinical/public health researchers (physicians, counselors, research associates, social scientists, nurses, pharmacists, technicians, data and quality managers etc.), scientists, ethics committee members and project managers.

INTENDED AUDIENCE: Any current or potential health researcher



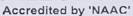


# List of students of Health Research Fundamentals



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Approved by All India Council for Technical Education, New Delhi, Pharmacy Council of India, New Delhi, Directorate of Technical Education, Mumbai (MS), Permanently affiliated to Savitribal Phule Pune University, Pune & Approved under Section (2 (f) & 12 (B) of UGC Act, 1956)

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Prof. Dr. P. D. Chaudhari M.Pharm., Ph.D. Principal Prof. Dr. Gajanan R. Ekbote M.S, M.N.A.M.S. Chairman, Business Council P.E.Society, Pune

2023-24

Name of Course: NPTEL on Health Research Fundamentals

Date: Jul-Sep 2023

Course Code: NOC23-HS93

Course Duration: 08 Week

List of Students

Sr. No	Name of Student	Sign
01	MRUGAJA RAJENDRA YEOLE	pryede.

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari



# **Curriculum of Health Research Fundamentals**

PRE-REQUISITES: dents in medical/denta fents in medical/denta (https://swayam.	nl/nursing/AYUSH streams Graduate in any discipline .gov.in/) (https://swayam.gov.in/nc_details/NPTEL)
INSTITUTIONS SUPI CONTINUENT/ private sector, po	ublic health service institutions/ agencies, Post graduate institutions in
biomedical and allied Apictoswayardigatops!//swayalni.gov.itig	ab 🕪 a 🗚 earge and sies health research, Clinical research organizations, Pharma
companies and marketing research organizations	
Summary	
Course Status :	Completed
Course Type :	Elective
Language for course content :	English
Duration :	8 weeks
Category:	Humanities and Social Sciences
	Psychology
Credit Points :	2
Level:	Undergraduate
Start Date :	24 Jul 2023
End Date :	15 Sep 2023
Enrollment Ends :	07 Aug 2023
Exam Registration Ends :	21 Aug 2023
Exam Date :	24 Sep 2023 IST
Note: This exam date is subject to change based on seat availability	ty. You can check final exam date on your hall ticket.
This is an AICTE approved FDP course	
(/#facebook) (/#x) (/#microsoft_teams)	(/#linkedin) (/#whatsapp)
(https://www.addtoany.com/share#url=https%3A%2F%2Fonlinecourses %20Course)	nptel.ac.in%2Fnoc23_hs93%2Fpreview&title=Health%20Research%20Fundamentals%20

# Course layout

# Week 1: Conceptualizing a research study

Introduction to health research – Dr. Sanjay Mehendale
Formulating research question, hypothesis and objectives – Dr. P Manickam
Literature review – Dr. P Ganeshkumar





Week 2: Epidemiolog s in designing a research study (1/2)

Measures of disease Swayam (https://swayam.gov.in/nc\_details/NPTEL)

Descriptive study designs Di. I rabinacep Kaur

Analytical study designed and the swayain (Https://swayam.gov.in/about) | All Courses |

Week 3: Epidemiological considerations in designing a research study (2/2)

Experimental study designs: Clinical trials - Dr. Sanjay Mehendale Validity of epidemiological studies - Dr. Tarun Bhatnagar Qualitative research methods: An overview - Dr. Tarun Bhatnagar

#### Week 4: Bio-statistical considerations in designing a research study

Measurement of study variables – Dr. R Ramakrishnan Sampling methods – Dr. R Ramakrishnan Calculating sample size and power – Dr. R Ramakrishnan

#### Week 5: Planning a research study (1/2)

Selection of study population – Dr. P Ganeshkumar Study plan and project management – Dr. Sanjay Mehendale Designing data collection tools – Dr. Tarun Bhatnagar

#### Week 6: Planning a research study (2/2)

Principles of data collection – Dr. Prabhdeep Kaur Data management – Dr. P Manickam Overview of data analysis - Dr. P Manickam

#### Week 7: Conducting a research study

Ethical framework for health research – Dr. Sanjay Mehendale Conducting clinical trials - Dr. Sanjay Mehendale

#### Week 8: Writing a research protocol

Preparing a concept paper for research projects – Dr. P Manickam Elements of a protocol for research studies – Dr. Tarun Bhatnagar Publication ethics – Dr. Sirshendu Chaudhuri Manuscript writing – Dr. Jayashree K Grant proposal writing – Dr. S.A. Rizwan

## Books and references

Reading materials will be available for each topic

#### Instructor bio



## **Multi Faculty**

National Institute Of Epidemiology

Dr. Sanjay Mehendale, MD, MPH, FAMS, FIMSA, FACE Ex - Additional Director General, ICMR





# **Summary of Health Research Fundamentals**

PRE-REQUISITES :	dents in medical/dent (https://swayam		USH streams Graduate in any discipline (https://swayam.gov.in/nc_details/NPTEL)
INSTITUTIONS SUPPLIES		0.000 20 40	service institutions/ agencies, Post graduate institutions in
biomedical and allied Aging Wa	Mandigattas!//swayalai.gov.ihi	7 ab V जि. १ १ १ १ १ १ १ १ १ १	research organizations, Pharma
companies and marketing resea	rch organizations		
Summary			
Course Status :		Completed	
Course Type :		Elective	
Language for course content :		English	
Duration :		8 weeks	
Category :		<ul> <li>Humaniti</li> </ul>	ies and Social Sciences
		<ul> <li>Psycholo</li> </ul>	gy
Credit Points :		2	
Level :		Undergradu	ate
Start Date :		24 Jul 2023	
End Date :		15 Sep 2023	3
Enrollment Ends :		07 Aug 202	3
Exam Registration Ends :		21 Aug 202	3
Exam Date :		24 Sep 2023	3 IST
Note: This exam date is subject to	change based on seat availabi	lity. You can che	eck final exam date on your hall ticket.
This is an AICTE approved FDF	course		
(/#facebook) (/#x)	(/#microsoft_teams)	(/#linkedin)	(/#whatsapp)
(https://www.addtoany.com/share#u%20Course)	rl=https%3A%2F%2Fonlinecourse	es.nptel.ac.in%2F	Fnoc23_hs93%2Fpreview&title=Health%20Research%20Fundamentals%20

# Course layout

## Week 1: Conceptualizing a research study

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# **Attendance of Health Research Fundamentals**

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# **Assessment of Health Research Fundamentals**



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2023-24

Name of Course: NPTEL on Enhancing Soft Skills and Personality

Date: Feb-Apr 2024

Course Code: noc24-ge21

Course Duration: 8 Week

#### List of Students

Sr. No	Name of Student	Examination %
1	ANIKET SHIVAJI ULMULE	65

Course Co-ordinator Dr. A. R. Kumbhar

Principal Dr. P. D. Chaudhari





# **Certificate of Health Research Fundamentals**



# Elite

# nline Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

ANIKET SHIVAJI ULMULE

for successfully completing the course



with a consolidated score of

65

Online Assignments | 19.5/25

Proctored Exam

45.75/75

Total number of candidates certified in this course:12566



Feb-Apr 2024 (8 week course)





Indian Institute of Technology Kanpur



No. of credits recommended: 2 or 3

Roll No: NPTEL24HS26S465202252

To verify the certificate