

# **SCHOOL OF PHARMACY**

# **CRITERIA 1**

# **SUB CRITERIA 1.3.4**

# Percentage of students undertaking field projects / research projects / internships

Academic Year

Dr. Omveer Singh REGISTRAR **ITM** University Gwalior (M.P.)

2019-2020



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Prof. A. Balasubramaniam (Signature with seal) Death School of Pharmacy School of Pharmacy TITM University TITM University TITM University

Dr. Omveer Singh REGISTRAR ITM University Gwalior (M.P.)

ITM University Gwalior Campus, NH-44, Turari, Gwalior, (M.P.) - 475 001 INDIA mail: info@itmuniversity.ac.in, web: www.itmuniversity.ac.in



# SCHOOL OF PHARMACY

## Total Number of Research Projects in UG and PG

Research Projects	Program	Total Number of students involved in research projects
	B.Pharm	33
	M.Pharm(Pharmaceutics)	03

The students undertake major projects for increasing their practical knowledge and experience. Students are encouraged to do their research in the University, Industry and community to encourage the research insight in them.

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Prof. A. Balasubramaniam (Signature with seal) Death Death School of Pharmacy School of Pharmacy ITM University TIM University TIM University

Dr. Omveer Singh REGISTRAR **ITM** University Gwalior (M.P.)



# **STUDY AND EVALUATION SCHEME (2019-2020)**

(SUBJECT-WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Programme:BPharm(BPharm)

Semester:8th

			Maximun	Maximum Marks Allotted									Total Credit s
S.No	Course Code	Course Name	Theory			Practical			Tota I Mark s				
			End Sem. Exam	Mid Sem Exa m	Class Participatio n	End Sem. Exam	Prograssi ve Evaluatio n	Interna I Viva		L	т	Ρ	
1	BP801T	Biostatistics and Research Methodology	75	15	10	0	0	0	100	3	1	0	4
2	BP802T	Social and Preventive Pharmacy	75	15	10	0	0	0	100	3	1	0	4
<mark>3</mark>	BP813PW	Project Work	<mark>0</mark>	<mark>0</mark>	<mark>0</mark>	<mark>100</mark>	<mark>25</mark>	<mark>25</mark>	<mark>150</mark>	<mark>0</mark>	0	<mark>6</mark>	<mark>6</mark>
4		Elective2.	75	15	10	0	0	0	100	3	1	0	4
5		Elective2.	75	15	10	0	0	0	100	3	1	0	4
I					1			1		T	otal C	redite	\$ 22



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# Syllabus

Title of the Course	Project Work
Course Code	BP813PW

			Part /	٩					
Year	4th <b>Semester</b>		8th	Credits	L	Т	Р	С	
i eai	401	Semester	our	Credits	0	0	6	6	
Course Type	Projec	t							
Course Category	Projects and Internship								
Pre-Requisite/s		Co-Requisite/s							
Course Outcomes & Bloom's Level	LCO2- LO ADDIV KNOWIEGOE INTO DIACTICAL MANDER (BL 3-ADDIV)								
Course Elements	1	evelopment X preneurship sssonal Ethics	SDG (Goals)	SDG1(No poverty) SDG3(Good health and well-being) SDG4(Quality education) SDG6(Clean water and sanitation) SDG8(Decent work and economic growth) SDG10(Reduced inequalities) SDG11(Sustainable cities and economies) SDG12(Responsible consuption and production) SDG17(Partnerships for the goals)					

## Part B

Modules	Contents	Pedagogy	Hours
1	1. The area of the project shall directly relate any one of the elective subject opted by the students 2. All the students shall undertake a project under the supervision of a teacher and submit a report. 3. The project shall be carried out in group not exceeding 5 in number. The project report shall be submitted in triplicate (typed & bound copy not less than 25 pages). 4. The internal and external examiner appointed by the University shall evaluate the project at the time of the Practical examinations of other semester(s). 5. Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of five students). 6. The projects shall be evaluated as per the criteria given below.	PBL	150



Modules	Title	Indicative-ABCA/PBL/ Experiments/Field work/ Internships	Bloom's Level	Hours
1	As per supervisor's instructions	PBL	BL2-Understand	10

# Part D(Marks Distribution)

			Theory						
Total Marks	Minimum Passing MarksExternal EvaluationMin. External EvaluationInternal 								
	Practical								
Total Marks	······································		Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation				
150	75	100	50	50	25				

### Part E

Books         As per Given Topic						
Articles	As per Given Topic https://www.sciencedirect.com/search NCBI/Pubmed Library					
References Books         As per Given Topic						
MOOC Courses NA						
Videos	As per Given Topic					

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	3	3	3	1	0	0	-	-	-	-	1	0	0
CO2	2	1	2	3	2	1	0	0	-	-	-	-	1	0	0
CO3	2	1	2	3	2	1	0	0	-	-	-	-	1	0	0
CO4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Course Articulation Matrix** 

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Prof. A. Balasubramaniam (Signature with seat) Death School of Pharmacy School of Pharmacy ITM University ItWaliot (M.P)

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https://prabandh.itmuniversity.ac.in/hod/syllabusreport/



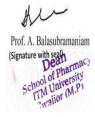
## STUDY AND EVALUATION SCHEME (SUBJECT-WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

#### Name of Course:M Pharm (Pharmaceutics)

Semester:4th

			Maximum Marks Allotted								Credits Allotted		
.No.	Subject Code	Subject Name		Theor	у		Total Marks						
			End Sem. Exam	Mid Sem Exa m	Class Participation	End Sem. Exam	Prograssiv e Evaluation	Internal Viva		L	т	Ρ	
1	MPH 401P	Journal Club	0	0	0	0	25	0	25	0	0	1	1
2	MPH 402P	Discussion/Presentation (Proposal Presentation)	0	0	0	75	0	0	75	0	0	16	16
<mark>3</mark>	MPH 403P	Discussion/Final Presentation	0	<mark>0</mark>	<mark>0</mark>	<mark>200</mark>	<mark>100</mark>	<mark>100</mark>	<mark>400</mark>	<mark>0</mark>	<mark>0</mark>	<mark>3</mark>	<mark>3</mark>
<mark>4</mark>	MPH 404T	Research Publication /Report	0	<mark>0</mark>	<mark>0</mark>	<mark>50</mark>	<mark>0</mark>	<mark>0</mark>	<mark>50</mark>	<mark>0</mark>	<mark>0</mark>	1	1
		•	•	•	•	•	•	•	•	Т	otal C	redits	21

Newly Added Courses





https://prabandh.itmuniversity.ac.in/hod/schemeprogrammewise/



# Syllabus-2019-2020

## (SOP)(M Pharm-Pharmaceutics)

Title of the Course	Discussion/Final Presentation
Course Code	MPH 403P

#### Part A

Year	2nd	Semester	4th	Credits	L	Р	С		
i cai	2110	Jemester	401	Credits	0	0	3	3	
Course Type	Lab only								
Course Category	Projects	and Internship							
Pre-Requisite/s		Co-Requisite/s							
Course Outcomes & Bloom's Level	CO2- To	<ul> <li>CO1- To know how to conduct a research(BL2-Understand)</li> <li>CO2- To know about different research methodolgies(BL2-Understand)</li> <li>CO3- Apllication of research principles and stastical principles(BL3-Apply)</li> </ul>							
Course Elements	Skill Dev Entrepre Employa Professs Gender 2 Human V Environm		SDG (Goals)	SDG4(Quality education	on)				

#### Part B

Modules	Contents	Pedagogy	Hours
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## Part D(Marks Distribution)

	Theory											
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation							
	200											
Practical												
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation							
400	200	200	100	200	100							

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Books	NA
Articles	NA
References Books	NA
MOOC Courses	NA
Videos	NA

COs	PO1	PO2	PO3	PO4	PO5				PO9		PO11	PO12	PSO1	PSO2	PSO3
003	101	102	100	104	100	100	107	100	100	1010	1011	1012	1001	1 002	1000
CO1	-	3	3	3	1	-	-	-	-	-	3	-	1	-	3
CO2	-	2	3	3	1	-	-	-	-	-	3	-	-	-	1
CO3	-	3	3	3	-	-	-	-	-	-	2	-	1	-	3
CO4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Course Articulation Matrix

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Prof. A. Balasubramaniam

(Signature with seal) Death Death Death Death Pharmacy School of Pharmacy School of Pharmacy TIM University TIM University Twailor (M.P)

Dr. Omveer Singh REGISTRAR ITM University Gwalior (M.P.)



# Syllabus-2019-2020

# (SOP)(MPharm-PharmaCeutics)

Title of the Course	Research Publication /Report
Course Code	MPH 404T

#### Part A

Year	2nd	Semester	4th	Credits	L	Т	Ρ	С	
i cai	2110	Jemester		Greatta	0	0	2	2	
Course Type	Lab only								
Course Category	Projects	and Internship							
Pre-Requisite/s		Co-Requisite/s							
Course Outcomes & Bloom's Level	CO2- Imp CO3- sho	<ul> <li>D1- students should improve thier publication writing skills(BL2-Understand)</li> <li>D2- Improve their communication skills (BL3-Apply)</li> <li>D3- should get sound knowledge of various databases ,referencing styles and ftwares(BL3-Apply)</li> </ul>							
Course Elements	Skill Dev Entrepre Employa Professso Gender 3 Human V Environm		SDG (Goals)	SDG4(Quality education	on)				

#### Part B

	Modules	Contents	Pedagogy	Hours	
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#### Part C

Modules	Title	Indicative-ABCA/PBL/ Experiments/Field work/ Internships	Bloom's Level	Hours
1	presenting research/review papers in various seminars ,conferences or symposiums	PBL		

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# Part D(Marks Distribution)

	Theory											
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation							
	25											
	•		Practical									
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation							
50	0	50	25	0	0							

### Part E

Books	NA
Articles	NA
References Books	NA
MOOC Courses	NA
Videos	NA

## **Course Articulation Matrix**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	3	2	2	1	-	-	-	-	-	3	-	1	1	3
CO2	1	1	2	2	-	-	-	-	-	-	2	-	2	2	3
CO3	1	3	3	2	1	-	-	-	-	-	3	-	1	2	1
CO4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Prof. A. Balasubramaniam

(Signature with seal) School of Pharmacy TTM University aalior

Dr. Omveer Singh REGISTRAR ITM University Gwalior (M.P.)



# Details of UG, PG Industrial Trainings/ Projects

Name of the School: School of Pharmacy Name of the Course and Branch: B.Pharmacy Session: 2019-20 Total No. of Students enrolled: 33

Sr.	Branch	Name of	Roll Number	Title of Project	Duratio	Guide Name
<b>no</b> 1.	Pharmacy	Students Abhishek Deshmukh	BPYN1PY16001	Computer-aided drug designing for targeted drug	n 6 months	Mr. Anurag Agarwal
2.	Pharmacy	Akash Jain	BPYN1PY16002	delivery systems.	6 months	Mr. Anurag Agarwal
3.	Pharmacy	Anil Vishvakarma	BPYN1PY16004	-	6 months	Mr. Anurag Agarwal
4	Pharmacy	Anmol Chaturvedi	BPYN1PY16005	-	6 months	Mr. Anurag Agarwal
5	Pharmacy	Anurag Sharma	BPYN1PY16006	Novel Routes of Insulin for Diabetes	6 months	Mr. H.K. Pathan
6	Pharmacy	Archita Mukherjee	BPYN1PY16007	Treatment.	6 months	Mr. H.K. Pathan
7	Pharmacy	Deepali Shrivastava	BPYN1PY16012	-	6 months	Mr. H.K. Pathan
8	Pharmacy	Divyansh Pathak	BPYN1PY16013	In silico modelling of protein dynamics in heart	6 months	Mrs. Divya Niranjan
9	Pharmacy	Harsh Kumar Pandey	BPYN1PY16014	disease	6 months	Mrs. Divya Niranjan
10	Pharmacy	Hemant Gurjar	BPYN1PY16016	-	6 months	Mrs. Divya Niranjan
11	Pharmacy	Himanshu Kumar Sonu	BPYN1PY16017		6 months	Mrs. Divya Niranjan
12	Pharmacy	Himanshu Rajput	BPYN1PY16018	Innovative ways to disinfect surfaces using	6 months	Mrs. Divya Niranjan
13	Pharmacy	Jayesh Mishra	BPYN1PY16019	catalysis	6 months	Mrs. Divya Niranjan
14	Pharmacy	Kamuchele	BPYN1PY16020	1	6 months	Mrs. Divya Niranjan

		Judith				
15	Pharmacy	Md Moin Khan	BPYN1PY16021	-	6 months	Mrs. Divya Niranjan
16	Pharmacy	Mushaike Eustus	BPYN1PY16022	Designing of a polyherbal formulation for	6 months	Dr. A. Balasubramaniam
17	Pharmacy	Navneet Patkar	BPYN1PY16023	metabolic disorder	6 months	Dr. A. Balasubramaniam
18	Pharmacy	Nilu Kumari	BPYN1PY16025		6 months	Dr. A. Balasubramaniam
19	Pharmacy	Prateek Mangal	BPYN1PY16027	-	6 months	Dr. A. Balasubramaniam
20	Pharmacy	Pritam Chetri	BPYN1PY16028	Parkinson's disease novel drugs.	6 months	Mr. Nem Kumar Jain
21	Pharmacy	Rajat Mudgal	BPYN1PY16030		6 months	Mr. Nem Kumar Jain
22	Pharmacy	Ranjit Singh	BPYN1PY16032		6 months	Mr. Nem Kumar Jain
23	Pharmacy	Roy Rimjhim Shankar	BPYN1PY16033		6 months	Mr. Nem Kumar Jain
24	Pharmacy	Sailee Rangnekar	BPYN1PY16034	Supercritical fluid technology	6 months	Mr. Shivam Tayal
25	Pharmacy	Shrikrishna Kaneriya	BPYN1PY16037		6 months	Mr. Shivam Tayal
26	Pharmacy	Shubham Kumar Gupta	BPYN1PY16039		6 months	Mr. Shivam Tayal
27	Pharmacy	Sima Das	BPYN1PY16040		6 months	Mr. Shivam Tayal
28	Pharmacy	Simran Gill	BPYN1PY16041		6 months	Mr. Shivam Tayal
29	Pharmacy	Subham Nagar	BPYN1PY16042	Formulation and evaluation of topical	6 months	Dr. Subodh Kumar Dubey
30	Pharmacy	Yesmant Amb	BPYN1PY16045	formulations of Bosweellic acids	6 months	Dr. Subodh Kumar Dubey
31	Pharmacy	Zaid Khan	BPYN1PY16046	guggulosterones for the treatment of rheumatoid arthritis	6 months	Dr. Subodh Kumar Dubey
32	Pharmacy	Satpal Singh	BPYN1PY16047		6 months	Dr. Subodh Kumar Dubey
33	Pharmacy	Sanjana Singh	BPYN1PY16049		6 months	Dr. Subodh Kumar Dubey

A

Prof. A. Balasubramaniam

Dean of School





# COMPUTER AIDED DRUG DESIGNING FOR TARGETED DRUG DELIVERY SYSTEM



A Dissertation submitted to

ITM University, Gwalior

in the partial fulfillment of the degree of

# **BACHELOR'S IN PHARMACY**

Submitted by:

## **ABHISHEK DESHMUKH**

## **BPYN1PY16001**

Supervised by

Mr. ANURAG AGRAWAL

(ASSISTANT PROFESSOR)

Prof. A. Balasubramaniam (Signature with seal)

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# NOVEL ROUTES OF INSULIN FOR DIABETES TREATMENT



A Dissertation submitted to

ITM University, Gwalior

in the partial fulfillment of the degree of

# **BACHELOR'S IN PHARMACY**

Submitted by:

# **ANURAG SHARMA**

**BPYN1PY16006** 

Supervised by

Mr. H.K. PATHAN

(ASSISTANT PROFESSOR)

Prof. A. Balasubramaniam (Signature with seath Death School of Pharmacy ITM University ITM University

Omveer Singh Dr. REGISTRAR **ITM** University Gwalior (M.P.)

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# IN-SILICO MODELLING OF PROTEIN DYNAMICS IN HEART DISEASES



A Dissertation submitted to

ITM University, Gwalior

in the partial fulfillment of the degree of

# **BACHELOR'S IN PHARMACY**

Submitted by:

# HARSH KUMAR PANDEY

**BPYN1PY16014** 

Supervised by

Mrs. DIVYA NIRANJAN

(ASSISTANT PROFESSOR)

Prof. A. Balasubramaniam (Signature with seal) Death School of Pharmacy School of Pharmacy TTM University TTM University Tty alior (M.P)

**Omveer** Singh Dr. REGISTRAR **ITM** University Gwalior (M.P.)

# DESIGNING OF A POLYHERBAL FORMULATION FOR METABOLIC DISORDERS



A Dissertation submitted to

ITM University, Gwalior

in the partial fulfillment of the degree of

# **BACHELOR'S IN PHARMACY**

Submitted by:

NAVNEET PATKAR

**BPYN1PY16023** 

Supervised by

Dr. A.BALASUBRAMANIAM

(DEAN)

Prof. A. Balasubramaniam



mveer Singh REGISTRAR **ITM** University Gwalior (M.P.)



# Details of UG, PG research projects

Name of the School: School of Pharmacy Name of the Course and Branch: M.Pharm (Pharmaceutics) Session: 2019-20 Total No. of Students enrolled: 3

S.No	Specialization	Name of the Student	Roll No.	Title of the project	Duration	Guide's Name
1	Pharmaceutics	Bharti Parmar	MPYN1PY1 8001	Formulation and evaluation of dosage form for the management of kidney stone	2 Yrs	Dr. Subodh Kumar Dubey
2	Pharmaceutics	Pramod Sharma	MPYN1PY1 8002	Preparation and evaluation of muco- adhesive buccal tablets of Psidiu guajava stem bark ethanol extract for oral infection disease	2 Yrs	Dr. A. Balasubramaniam
3	Pharmaceutics	Suwrat Agrawal	MPYN1PY1 8004	Design, formulation & Development of fast dissolving Multilayer tablet of anti- hiv Drugs	2 Yrs	Dr. A. Balasubramaniam

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Prof. A. Balasubramaniam

Dean of School





Formulation and Evaluation of Dosage Form for Management of Organ Stone

A dissertation submitted in partial fulfilment of the requirement for The award of the degree of

> MASTER OF PHARMACY (PHARMACEUTICS) ITM UNIVERSITY GWALIOR

> > By

Bharti Parmar (Roll. No. MPYN1PY18001)

Under the Guidance of Dr. Bala Subhrmanyan Assistant Professor

Department of Pharmaceutics SCHOOL OF PHARMACY ITM UNIVERSITY GWALIOR NH-44, BYPASS, TURARI, JHANSI ROAD, GWALIOR - 474001 MADHYA PRADESH, INDIA

School of Pharmacy ITM University Gwalior, Madhya Pradesh

Dr. Omveer Singh REGISTRAR ITM University Gwalior (M.P.)

Design Development and Evaluation of Nucleocide Analog Reverse Transcriptase Inhibitor Drug (NRTIS) A dissertation submitted in partial fulfilment of the requirement for The award of the degree of

> MASTER OF PHARMACY (PHARMACEUTICS) ITM UNIVERSITY GWALIOR

> > By

Pramod Sharma (Roll. No. MPYN1PY18002)

Under the Guidance of Dr. Bala Subhrmanyan Assistant Professor

Department of Pharmaceutics SCHOOL OF PHARMACY ITM UNIVERSITY GWALIOR NH-44, BYPASS, TURARI, JHANSI ROAD, GWALIOR - 474001 MADHYA PRADESH, INDIA

Dean School of Pharmacy ITM University Gwalior, Madhya Pradech



Formulation and Evaluation of Liposomal Drug Delivery System for Adriablastin A dissertation submitted in partial fulfilment of the requirement for The award of the degree of

> MASTER OF PHARMACY (PHARMACEUTICS) ITM UNIVERSITY GWALIOR

> > By

Saswat Agrawal (Roll. No. MPYN1PY18004)

Under the Guidance of Dr. Subodh Kumar Dubey **Assistant Professor** 

**Department of Pharmaceutics** SCHOOL OF PHARMACY NH-44, BYPASS, TURARI, JHANSI ROAD, GWALIOR - 474001 MADHYA PRADESH INDIA

Dean School of Pharmacy ITM University

Dr. Omveer Singh REGISTRAR **ITM** University Gwalior (M.P.)