

SCHOOL OF SCIENCE

Department of Biotechnology

CRITERIA 1

Sub Criteria- 1.3.3

Percentage of students undertaking field projects / research projects / internships

Academic Year

2023-2024


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SCHOOL OF SCIENCE
Department Of Biotechnology

Total Number of Research Projects in UG and PG

Research Projects	Program	Total Number of students involved in research projects
	M. Sc Biotechnology	08

The students undertake mini and major projects for increasing their practical knowledge and experience. Students are encouraged to do their research in the Research Institutes, hospitals and Industries to encourage the research insight in them

Total Number of Research Projects/Internships in UG

Internships/Research Projects	Program	Total Number of students involved in Internship
	BSc Biotechnology	24

In the Biotechnology disciplines, there is mandatory Internship. In the curriculum design it has been incorporated into the programme and complete it as a mandatory part of final year training.

Total Number of Field Project/Industry visits in UG and PG

Field Project/Industry visits/Hands on Training	Program	Total Number of students involved in field projects
	BSc Biotechnology	13
	M. Sc Biotechnology	01

Field visits / Industry Visits Field/ Industrial visits during the course of any programme gives students an insight on the internal working environment of the company. Biotechnology, students undertake field visits to research institutes, industries, sewage treatment plants, water treatment plants, etc. to enhance knowledge and enrich skills.


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"CELEBRATING DREAMS"

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School of Sciences

NAME OF COURSE: B. SC. BIOTECHNOLOGY

SESSION 2023 ONWARDS


SEMESTER: VI


SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS

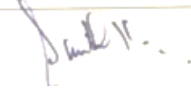
Sr. No.	Subject Code	Subject Name	Maximum Marks Allotted						Credits		Total Credits	
			Theory Slot			Practical Slot			Total Marks	L		P
			End Sem.	Mid Sem. MST (Two tests average)	Class Participation	End Sem.	Progressive Evaluation	Internal viva				
1	BSBT-601	Waste Management	40	30	30	40	30	30	200	3	1	04
2	BSBT-602	Food Microbiology	40	30	30	40	30	30	200	3	1	04
3	BSBT-603	Research Methodology	40	30	30	-	-	-	100	4	0	04
4	BSBT-604	Medicinal Chemistry	40	30	30	40	30	30	200	3	1	04
5	BSBT-605	Advances in Applied biological sciences and Wildlife conservation	40	30	30	-	-	-	100	2	-	02
6	BSBT 606	Open Elective 2	40	30	30	-	-	-	100	2	-	02
7	BSBT -607	Major Project + Seminar	-	-	-	200+	-	-	300	2	-	02
8	BSBT 608	NCC*/MOOC*	40	30	30	40	30	30	200	2	1	3
Total									1200			22+3

*Additional credit only for those students who opt for NCC/MOOC

List of Open Electives: 2 Subjects	BSBT 606 A: Introduction to Nanobiotechnology	BSBT 606 B: Frontiers in Biotechnology and Microbiology
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 Dr. Y.C. Goswami
 (Chairman)


 Dr. Rita Sharma
 (Coordinator & member)


 Dr. Santosh Kumar
 (Exam Superintendent)


 Dr. Omveer Singh
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(SOS)(BSc_Biotechnology)

Title of the Course	Major Project
Course Code	BSBT 607 (P)

Part A

Year	3rd	Semester	6th	Credits	L	T	P	C	
					0	0	6	6	
Course Type	Project								
Course Category	Projects and Internship								
Pre-Requisite/s	Student must have basic knowledge of all the instruments, good laboratory practices, and subjective knowledge			Co-Requisite/s					
Course Outcomes & Bloom's Level	<p>CO1- This study aims to evaluate the impact of internship programs on the professional as well as on personal development and skills.(BL2-Understand)</p> <p>CO2- The planning and organizing of project framework in the Logframe through the analysis of inputs, activities, results, purpose or outcome, and overall objective or goal as a result of strategy analysis and selection.(BL3-Apply)</p> <p>CO3- Formulate a project that is capable of achieving its intended purpose/objective, of addressing identified problems, of managing potential risks, of designing activities and realistic time frame.(BL6-Create)</p> <p>CO4- Designing a project framework that responds to particular problem with clear objectives, expected results and activities(BL6-Create)</p> <p>CO5- Project formulation helps to prepare students with clear understanding of outline of research work.(BL6-Create)</p>								
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics ✓ Gender ✗ Human Values ✓ Environment ✓		SDG (Goals)	SDG3(Good health and well-being) SDG4(Quality education) SDG8(Decent work and economic growth)					

Part B

Modules	Contents	Pedagogy	Hours
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MARKS	MARKS	EVALUATION	EVALUATION	EVALUATION	EVALUATION
21/06/2024, 10:07					
Practical					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
300	150	300	150		

Part E

Books	Sustainable solid waste management: issues, policies, and structures. Academic Foundation, New Delhi. Dhamija, U., (2009). Virendra Kumar Pandey Textbook of Food Microbiology 1st Edition Research methodology, C. R. Kothari, 6th Edition
Articles	https://www.sciencedirect.com/science/article/pii/S2666049020300244 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7150063/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5037945/
References Books	Handbook of solid waste management, McGraw-Hill Publication, USA Kreith F, Tchobanoglous G (2002) John C. Ayres Microbiology of foods-2nd Edition Research methodology, Panneerselvam, R., Prentice Hall of India, New Delhi
MOOC Courses	https://nptel.ac.in/courses/105103205 https://nptel.ac.in/courses/126105013 https://nptel.ac.in/courses/121106007
Videos	https://nptel.ac.in/courses/105103205 https://nptel.ac.in/courses/126105013 https://nptel.ac.in/courses/121106007

Course Articulation Matrix

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


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Department of Biotechnology & Microbiology
(Batch 2022-23)

NAME OF COURSE: M.SC. BIOTECHNOLOGY

SEMESTER - IV

SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS

S.No.	Subject Code	Subject Name & Title	Maximum Marks Allotted							Credits Allotted Subject wise			Total Credits
			Theory Slot			Practical Slot			Total Marks	Period per week			
			End Sem	Mid Sem. MST (Two tests average)	Class Participation	End Sem	Progressive Evaluation	Internal viva		L	T	P	
1.	BT-401	Research Project	-	-	-	200	-	-	200	-	-	14	14
2.	BT-402	Research Report and Presentation	-	-	-	100	-	-	100	-	-	-	04
3.	BT-403	Research Methodology	40	30	30	-	-	-	100			04	04

Minimum Marks for passing in End Semester Practical – 50%

Dr. Y.C. Goswami
(Chairman)

Dr. Rita Sharma
(Coordinator & member)

Dr. Santosh Kumar
(Exam Superintendent)

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Syllabus (M.Sc. Biotechnology)

Title of the Course	RESEARCH PROJECT & RESEARCH REPORT AND PRESENTATION
Course Code	BT401/402

Part A

Year	2nd	Semester	4th	Credits	L	T	P	C
					0	0	14	14
Course Type	Project							
Course Category	Projects and Internship							
Pre-Requisite/s	Student must have basic knowledge of biotechnological laboratory skills			Co-Requisite/s				
Course Outcomes & Bloom's Level	<p>CO1- To provide students with the fundamental tools and practical skills required to generate competent and highly qualified post graduates. (BL2-Understand)</p> <p>CO2- To acquaint the students with the principles of biosafety and ethical perspectives of biotechnological systems. (BL2-Understand)</p> <p>CO3- To develop students' ability to apply knowledge and skills to solve theoretical and practical problems in biology and biotechnology. (BL5-Evaluate)</p> <p>CO4- To provide students with the basis for the life-long self-learning in an attempt to keep up with the continuous quick changes in the field of biotechnology. (BL3-Apply)</p> <p>CO5- To equip students with the necessary critical theoretical background, develop the analytical, and basic research skills that will help students to pursue higher education in reputed institutes at both national and international levels (BL4-Analyze)</p>							
Course Elements	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✓ Gender ✗ Human Values ✓ Environment ✓		SDG (Goals)	SDG3(Good health and well-being) SDG4(Quality education) SDG8(Decent work and economic growth) SDG9(Industry Innovation and Infrastructure)				

Part B

Modules	Contents	Pedagogy	Hours
Modules	Title	Indicative-ABCA/PBL/ Experiments/Field work/ Internships	Bloom's Level
Module-I	Identification of a problem and formulation of a topic of project/thesis	Internship	BL3-Apply
Module-II	To have field work and data collection through a chosen methodology	Internship	BL4-Analyze
Module-III	Dissertation and Viva-Voce	Internship	BL5-Evaluate

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Part C

Part D(Marks Distribution)

Theory					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
Practical					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
300	150	300	150		

Course Articulation Matrix

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


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Details of UG Research projects/Internship

Name of the School: School Science, ITM University, Gwalior.

Name of the Course and Branch: B.Sc. Biotechnology

Session: 2023– 2024

Total No. of Students enrolled: 24

Duration: 45 Days

List of Students

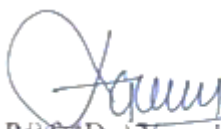
S.No	Roll No	Name Of Students	Name of Industry/Institute	Topic	Supervisor
1	BSBN1BT21002	Imran Khan	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak
2	BSBN1BT21003	Jigyanshu Khalate	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak
3	BSBN1BT21005	Parth Ajit Bhagat	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak
4	BSBN1BT21006	Shivangi Chauhan	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak
5	BSBN1BT21008	Uday Pratap	ANG Life Science, Himachal	Quality control and Analysis in industry	Mr. Alok Singh
6	BSBN1BT21009	Deepti Parmar	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
7	BSBN1BT21010	Rahul Singh	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak

<https://prabandh.itmuniversity.ac.in/hod>


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8	BSBN1BT21011	Shweta Rajput	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
9	BSBN1BT21013	Raj Sharma	ANG Life Science, Himachal	Quality control and Analysis in industry	Mr. Alok Singh
10	BSBN1BT21014	Vivek Rajouriya	ANG Life Science, Himachal	Quality control and Analysis in industry	Mr. Alok Singh
11	BSBN1BT21015	Mehak Ganglani	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
12	BSBN1BT21016	Mohit Baghel	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak
13	BSBN1BT21018	Amit Yadav	ANG Life Science, Himachal	Quality control and Analysis in industry	Mr. Alok Singh
14	BSBN1BT21019	Ojaswini Kothari	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
15	BSBN1BT21022	Aparna Shandilya	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
16	BSBN1BT21023	Kumkum Yadav	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak
17	BSBN1BT21024	Aswabendra singh	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak

18	BSBN1BT21025	Nandini Raj	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
19	BSBN1BT21026	Yashasvi Shrivastava	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
20	BSBN1BT21027	Md Tausif Alam	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
21	BSBN1BT21028	Surbhi Mandal	CSIR-NBRI Lucknow (U.P)	Bioinoculant producer for agricultural application	Dr. Puneet Singh Chauhan
22	BSBN1BT21029	Veeranki Sai Kiran	Bioaxis research Hyderabad	DNA centre. Compound separation, biochemical analysis and testing the inhibitory activity of Ocmium sanctium against to scalp pathogenic bacteria	Mrs. Jyoti
23	BSBN3BT22T01	Shruti Gupta	Omar India Pvt. Ltd.	Production of Mushroom Spawn of medicinally important Ostreatus (Oyster) mushroom	Dr. Harishran Goswami
24	BSBN3BT22T02	Awkash Bhadouriya	Dept. of Biotechnology/Microbiology ITM University	Hematological and Biochemical parameters of Human Blood	Mrs. Trapti Pathak


Prof. (Dr.) Yogesh C Goswami
 Dean
 School of Applied Sciences
 School of Science ITM University
 Gwalior (M.P.)-INDIA-474001

Dean
Prof. Y.C. Goswami
School of Sciences


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

**A
MAJOR PROJECT
ON
Hematological and Biochemical parameters
of Human Blood**



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**Under the guidance of:
Mrs. Trapti Pathak
Assistant professor
Department of Biotechnology
School of sciences
ITM University Gwalior**

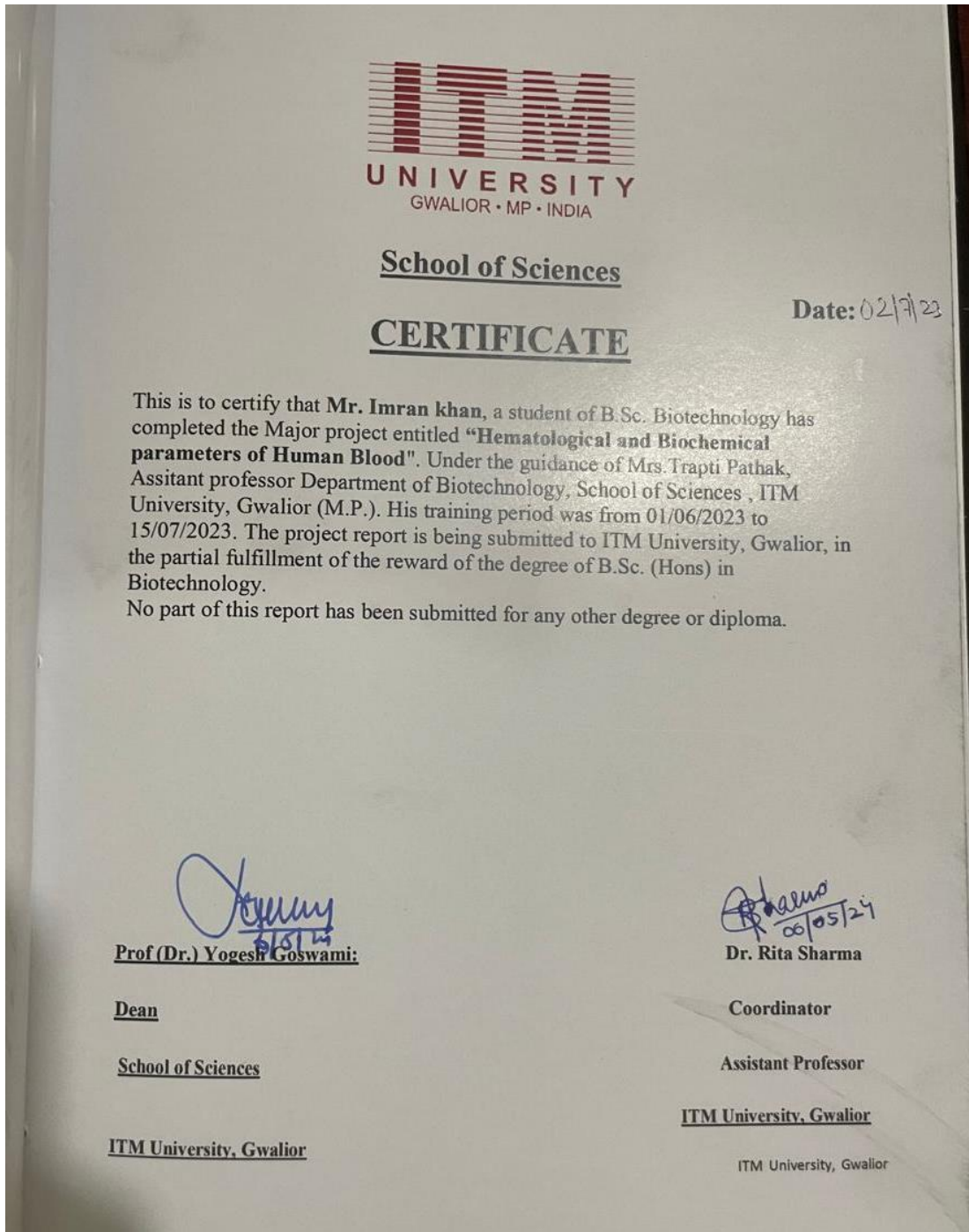
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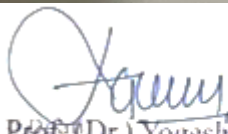
**IMRAN KHAN
BSBN1BT21002
B.Sc. Biotechnology (Hons)**

Prof. (Dr.) Yogesh C Goswami

Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

Dr. Omveer Singh
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Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
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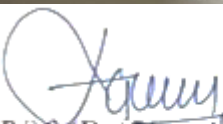


CERTIFICATE

This is to certify that the Major project entitled "**Hematological and Biochemical parameters of Human Blood**" has been carried out by **Mr. Imran khan (BSBN1BT21002)** student of B.Sc. (Hons) Biotechnology, from school of sciences, ITM University, Gwalior, under my supervision and guidance during the period from 01/06/2023 to 15/07/2023.



Trapti Pathak
Assistant Prof.
Department of Biotechnology
ITM University, Gwalior



Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001



Dr. Omveer Singh
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Gwalior (M.P.)

**A
MAJOR PROJECT
ON
Hematological and Biochemical parameters
of Human Blood**



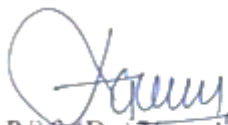
**Under the guidance of:
Mrs. Trapti Pathak
Assistant professor
Department of Biotechnology
School of sciences
ITM University Gwalior**

Submitted by:

**Jigyanshu Khalate
BSBN1BT21003**

B.Sc. Biotechnology (Hons)

ITM University, Gwalior


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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



School of Sciences

Date: 02/7/23

CERTIFICATE

This is to certify that **Mr. Jigyanshu Khalate**, a student of B.Sc. Biotechnology has completed the Major project entitled "**Hematological and Biochemical parameters of Human Blood**". Under the guidance of Mrs. Trapti Pathak, Assitant professor Department of Biotechnology, School of Sciences , ITM University, Gwalior (M.P.). His training period was from 01/06/2023 to 15/07/2023. The project report is being submitted to ITM University, Gwalior, in the partial fulfilment of the reward of the degree of B.Sc. (Hons) in Biotechnology.
No part of this report has been submitted for any other degree or diploma.

Prof (Dr.) Yogesh Goswami:

Dean

School of Sciences

Dr. Rita Sharma

Coordinator

Assistant Professor

ITM University, Gwalior

Prof. (Dr.) Yogesh C Goswami

**Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001**

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

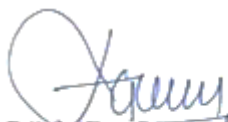
**A
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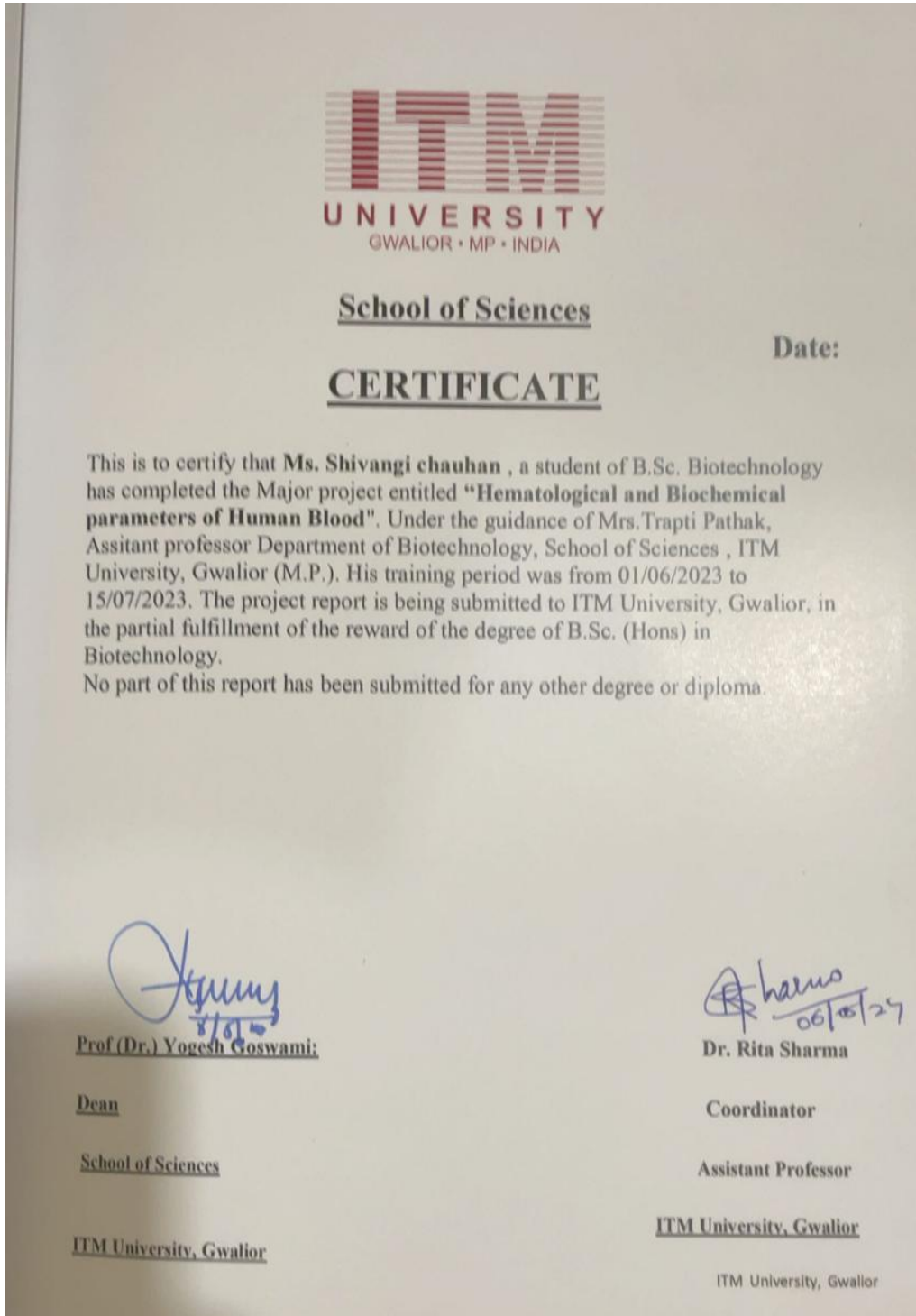
**Under the guidance of:
Mrs. Trapti Pathak
Assistant professor
Department of Biotechnology
School of sciences
ITM University Gwalior**


Submitted by:

**SHIVANGI CHAUHAN
BSBN1BT21006
B.Sc. Biotechnology (Hons)**


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
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Dr. Omveer Singh
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Prof. (Dr.) Yogesh C Goswami
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Gwalior (M.P.)-INDIA-474001


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



CERTIFICATE

This is to certify that the Major project entitled "**Hematological and Biochemical parameters of Human Blood**" has been carried out by **Ms. Shivangi chauhan (BSBN1BT21006)** student of B.Sc. (Hons) Biotechnology, from school of sciences, ITM University, Gwalior, under my supervision and guidance during the period from 01/06/2023 to 15/07/2023.

Trapti Pathak
Assistant Prof.
Department of Biotechnology
ITM University, Gwalior

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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

MAJOR PROJECT

Submitted in partial fulfilment of the requirement for the award of the degree

BACHELOR OF SCIENCE IN BIOTECHNOLOGY



Under The Guidance of
Mr. Alok Singh
Quality Control Head
ANG Lifesciences (H.P)
Submitted by

Uday Pratap
BSBN1BT21008
B.Sc. Hons Biotechnology
School of Science

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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

CERTIFICATE

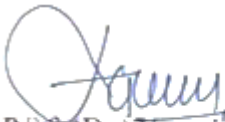
We hereby certify that the work which is being presented in this thesis entitled "Quality control department" at, Ang Lifesciences baddi, (H.P), India. Their training period was from 2 June 2023 to 15 July 2023. The project is being submitted to ITM University, Gwalior, in partial fulfilment of the award of the degree of Bachelor of Science in Biotechnology. No part of the report has been submitted for any other degree or diploma.



DEAN
Dr. Yogesh C. Goswami
School of Sciences
ITM University Gwalior



Coordinator
Dr. Rita Sharma
Assistant Professor
ITM University Gwalior



Prof. (Dr.) Yogesh C. Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001



Dr. Omveer Singh
REGISTRAR
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Tin No. 02030301372



Date.. 22. 08. 2023

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Ref: ANG/HR/TR/2023/74

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Uday Pratap S/o Sh. Yogendra Sikanwar, student of Biotechnology Course at ITM University, Gwalior, has undergone industrial training from 02-06-2023 to 15-07-2023 in QC Department. He has successfully completed the Industrial Training.

During the training, He has shown him keen interest and we found his sincere.


We wish him good luck.

For ANG Lifesciences India Limited


Authorized Signatory

Factory:
Vil. Kishanpura
PO. Manpura,
Baddi-Nalagarh Road,
Tehsil-Nalagarh,
Distt. Solan (H.P.)

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Prof. (Dr.) Yogesh C Goswami
Dean
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Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



MAJOR PROJECT

MOINOCULANT PRODUCER FOR AGRICULTURAL APPLICATIONS

Under the guidance of,

Dr. Puneet Singh Chauhan,

Senior Scientist,

CSIR-National Botanical Research Institute,

Lucknow, U.P, India


In partial fulfilment of Bachelor of Science (Hons), Biotechnology

Submitted by

Ms. Deepti Parmar (BSBN1BT21009)

School of Sciences,

ITM University, Gwalior


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


Dr. Omveer Singh
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CERTIFICATE

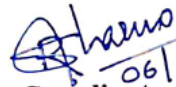
I hereby certify that the work which is being presented in this report titled "Bioinoculant Producer for Agricultural Application" at, CSIR – National Botanical Research Institute, Lucknow, U.P-226001, India. Their training period was from 5 June 2023 to 30 June 2023. The project is being submitted to ITM University, Gwalior, in partial fulfilment of the award of the degree of Bachelor of Science in Biotechnology. No part of the report has been submitted for any other degree or diploma.

DEAN

Dr. Yogesh C. Goswami

School of Sciences

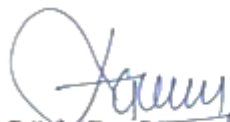
ITM University Gwalior


06/05/24
Coordinator

Dr. Rita Sharma

Assistance Professor

ITM University Gwalior


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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



CERTIFICATE



वै. औ. अ. प. - राष्ट्रीय वनस्पति अनुसंधान संस्थान
CSIR-National Botanical Research Institute

Lucknow, U.P. - 226 001, India




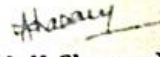
CERTIFICATE OF PARTICIPATION

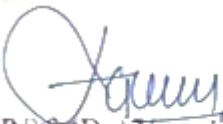
This is to certify that Ms. Deepti Parmar, D/O Mr. Jitendra Parmar of I.T.M. University, Gwalior has successfully completed the CSIR Integrated Skill Initiative Programme, entitled "Bioinoculant Producer for Agricultural Application" organized by Microbial Technology Division, CSIR-NBRI from June 5 - 30, 2023.

The candidate has attended the intensive training and successfully cleared the assessment for CSIR Integrated Skill Initiative Programme.


(P. S. Chauhan)
Course Coordinator


(M. S. Bhoyar)
CSIR-NBRI SDP Coordinator


(A. K. Shasany)
Director, CSIR-NBRI


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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

A
MAJOR PROJECT
ON
Hematological and Biochemical parameters
of Human Blood

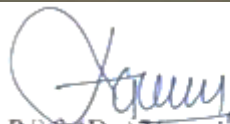


Under the guidance of:
Mrs. Trapti Pathak
Assistant professor
Department of Biotechnology
School of sciences
ITM University Gwalior

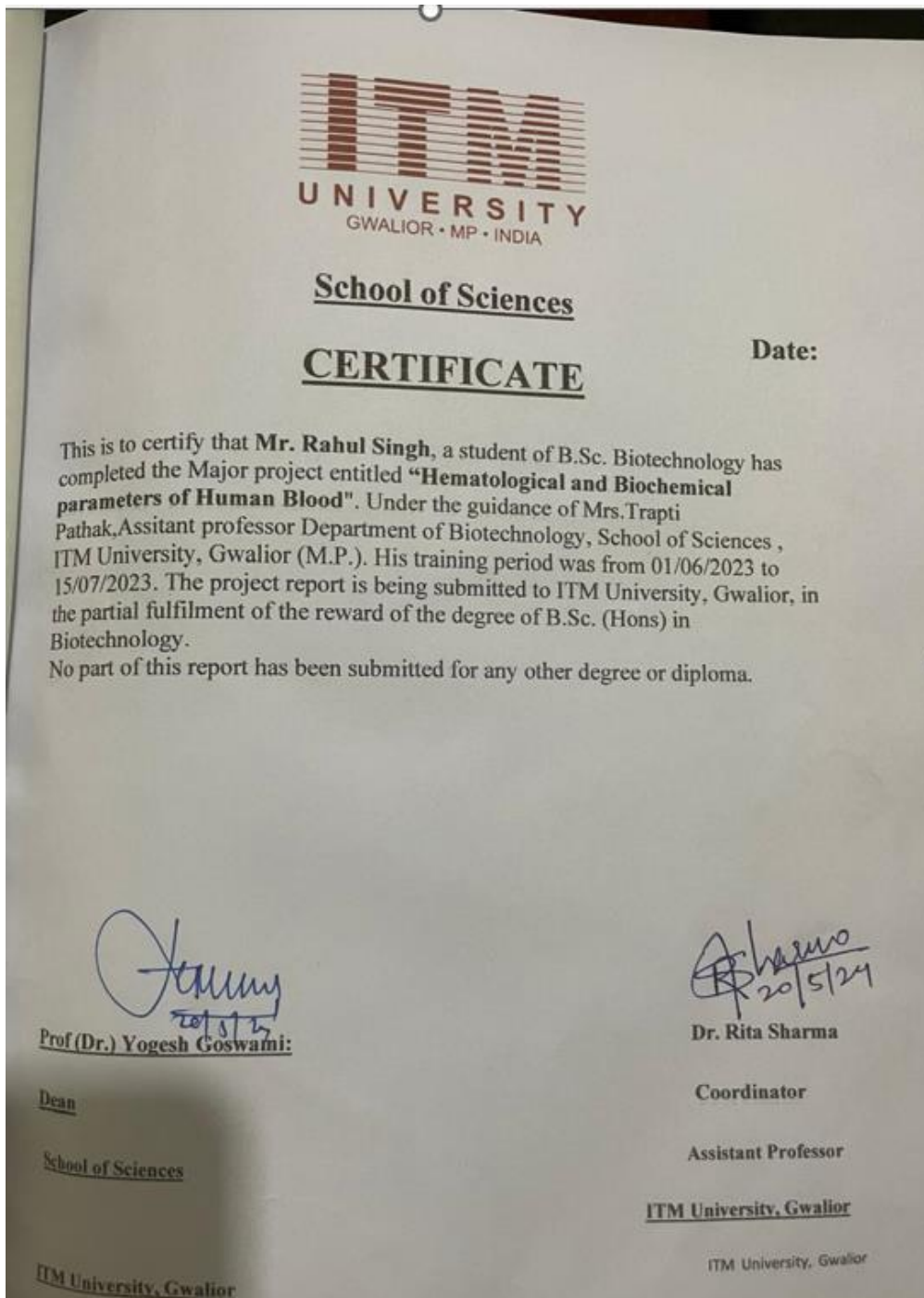
Forwarded
JS

Submitted by:

Rahul Singh
BSBN1BT21010
B.Sc. Biotechnology (Hons)


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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



[Signature]
Prof. (Dr.) **Yogesh C Goswami**
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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

MAJOR PROJECT

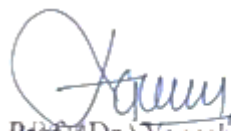
Submitted in partial fulfilment of the requirement for the award of the degree

BACHELOR OF SCIENCE IN BIOTECHNOLOGY



Under The Guidance of
Mr. Alok Singh
Quality Control Head
ANG Lifesciences (H.P)
Submitted by


Raj Sharma
BSBN1BT21013
B.Sc. Hons Biotechnology
School of Science

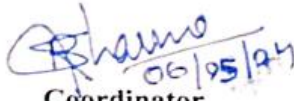

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

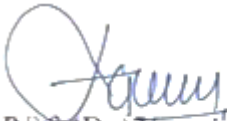

Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)

CERTIFICATE

We hereby certify that the work which is being presented in this thesis entitled "Quality control department" at, Ang Lifesciences baddi, (H.P), India. Their training period was from 2 June 2023 to 15 July 2023. The project is being submitted to ITM University, Gwalior, in partial fulfilment of the award of the degree of Bachelor of Science in Biotechnology. No part of the report has been submitted for any other degree or diploma.


DEAN
Dr. Yogesh C. Goswami
School of Sciences
ITM University Gwalior


Coordinator
Dr. Rita Sharma
Assistant Professor
ITM University Gwalior


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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

Corporate Identity Number
U24230PB2006PTC030341
Tin No. 02030301372



Ref. No.

Date..22.08.2023

Ref: ANG/HR/TR/2023/73

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Raj Sharma S/o Sh. Santosh, student of Biotechnology Course at ITM University, Gwalior, has undergone industrial training from 02-06-2023 to 15-07-2023 in QC Department. He has successfully completed the Industrial Training.

During the training, He has shown him keen interest and we found his sincere.


We wish him good luck.

For ANG Lifesciences India Limited


Authorized Signatory

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Prof. (Dr.) Yogesh C Goswami
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School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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

MAJOR PROJECT

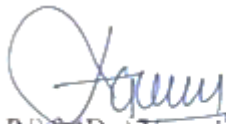
Submitted in partial fulfilment of the requirement for the award of the degree

BACHELOR OF SCIENCE IN BIOTECHNOLOGY



Under The Guidance of
Mr. Alok Singh
Quality Control Head
ANG Lifesciences (H.P)
Submitted by

Vivek Rajouriya
BSBN1BT21014
B.Sc. Hons Biotechnology
School of Science



Prof. (Dr.) Yogesh C Goswami
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School of Science ITM University
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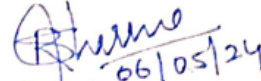
Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)

CERTIFICATE

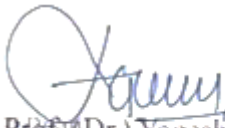
We hereby certify that the work which is being presented in this thesis entitled "Quality control department" at, Ang Lifesciences baddi, (H.P), India. Their training period was from 2 June 2023 to 15 July 2023. The project is being submitted to ITM University, Gwalior, in partial fulfilment of the award of the degree of Bachelor of Science in Biotechnology. No part of the report has been submitted for any other degree or diploma.



DEAN **06.05.24**
Dr. Yogesh C. Goswami
School of Sciences
ITM University Gwalior



Coordinator
Dr. Rita Sharma
Assistant Professor
ITM University Gwalior



Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001



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

Corporate Identity Number
L24230PB2006PT0030341
TIN No. 02030301372



Ref. No. _____
Ref: ANG/HR/TR/2023/72

Date: 22.08.2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Vivek Rajouriya S/o Sh. Purushottam Singh, student of Biotechnology Course at ITM University, Gwalior, has undergone industrial training from 02-06-2023 to 15-07-2023 in QC Department. He has successfully completed the Industrial Training.

During the training, He has shown him keen interest and we found his sincere.


We wish him good luck.

For ANG Lifesciences India Limited


Authorized Signatory

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Prof. (Dr.) Yogesh C Goswami
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Gwalior (M.P.)-INDIA-474001


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

MAJOR PROJECT
BIOINOCULANT PRODUCER FOR AGRICULTURE
APPLICATION


Submitted in partial fulfillment for the degree of
BACHELOR OF SCIENCE (Hons)
IN
BIOTECHNOLOGY



Under the guidance of
Prof. (Dr.) Puneet Singh Chauhan
Senior Scientist
CSIR NBRI, Lucknow (UP)

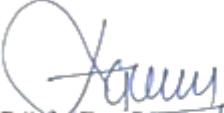
Submitted By

Mehak Ganglani
BSBN1BT21015
B.Sc. (Hons) Biotechnology
School of Science
ITM University, Gwalior


Prof. (Dr.) Yogesh C Goswami
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Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



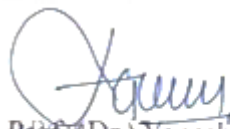

Prof: (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

A
MAJOR PROJECT
ON
Hematological and Biochemical parameters
of Human Blood



Under the guidance of:
Mrs. Trapti Pathak
Assistant professor
Department of Biotechnology
School of sciences
ITM University Gwalior

Submitted by:
MOHIT BAGHEL
BSBN1BT21016
B.Sc. Biotechnology (Hons)


Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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



School of Sciences

Date:

CERTIFICATE

This is to certify that **Mr. Mohitbaghel**, a student of B.Sc. Biotechnology has completed the Major project entitled "**Hematological and Biochemical parameters of Human Blood**". Under the guidance of Mrs. Trapti Pathak, Assistant professor Department of Biotechnology, School of Sciences, ITM University, Gwalior (M.P.). His training period was from 01/06/2023 to 15/07/2023. The project report is being submitted to ITM University, Gwalior, in the partial fulfillment of the reward of the degree of B.Sc. (Hons) in Biotechnology. No part of this report has been submitted for any other degree or diploma.

Prof (Dr.) Yogesh Goswami:

Dean Coordinator

School of Sciences

ITM University, Gwalior

Dr. Rita Sharma

Assistant Professor

ITM University, Gwalior
ITM University, Gwalior

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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

MAJOR PROJECT

Submitted in partial fulfilment of the requirement for the award of the degree

BACHELOR OF SCIENCE IN BIOTECHNOLOGY



Under The Guidance of
Mr. Alok Singh
Quality Control Head
ANG Lifesciences (H.P)
Submitted by

Amit Yadav
BSBN1BT21018
B.Sc. Hons Biotechnology
School of Science

A handwritten signature in blue ink, appearing to read 'Yogesh C Goswami'.

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

A handwritten signature in blue ink, appearing to read 'Omveer Singh'.

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



CERTIFICATE

I hereby certify that the work which is being presented in this thesis entitled "Quality control department" at, Ang Lifesciences baddi, (H.P), India. Their training period was from 2 June 2023 to 15 July 2023. The project is being submitted to ITM University, Gwalior, in partial fulfilment of the award of the degree of Bachelor of Science in Biotechnology. No part of the report has been submitted for any other degree or diploma.

DEAN
Dr. Yogesh C. Goswami
School of Sciences
ITM University Gwalior

Coordinator
Dr. Rita Sharma
Assistant Professor
ITM University Gwalior

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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

Identity Number
230F02006PTC030341
ID No. 02030301372



Ref. No.

Date 22.08.2023

Ref: ANG/HR/TR/2023/71

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Amit Yadav S/o Sh. Ramesh Yadav, student of Biotechnology Course at ITM University, Gwalior, has undergone industrial training from 02-06-2023 to 15-07-2023 in QC Department. He has successfully completed the Industrial Training.

During the training, He has shown him keen interest and we found his sincere.

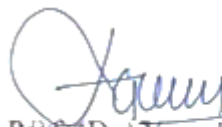
We wish him good luck.

For ANG Lifesciences India Limited


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Gwalior (M.P.)

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Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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

A major project

on

**"Production of Mushroom Spawn of medicinally important
Pleurotus ostreatus (Oyster) mushroom "**

Submitted in the partial fulfilment for the award of the degree of

BACHELOR OF SCIENCE (Hons.) IN BIOTECHNOLOGY



UNIVERSITY

GWALIOR • MP • INDIA

" CELEBRATING DREAMS "

Under the guidance of

Dr. Harisharan Goswami

OMCAR INDIA Pvt. Ltd.

Gwalior

Submitted By

Shruti Gupta

BSBN3BT22T01

B.Sc. (Hons) Biotechnology

School Of Sciences

ITM University, Gwalior

Prof. (Dr.) Yogesh C Goswami

School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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



School of Sciences

No.

Date:

CERTIFICATE

This is to certify that **Ms. Shruti Gupta**, a student of B.Sc. Biotechnology has completed the Major project entitled " **Production of Mushroom Spawn of medicinally important *Pleurotus ostreatus* (Oyster) mushroom** ". Under the guidance of **Prof. (Dr.) Harisharan Goswami**, Omcar India Pvt. Ltd. Gwalior (M.P.). Her training period was from 07/03/2024 to 07/04/2024. The project report is being submitted to ITM University, Gwalior, in the partial fulfilment of the reward of the degree of B.Sc. (Hons) in Biotechnology.

No part of this report has been submitted for any other degree or diploma

Prof. (Dr.) Yogesh Goswami



6/5/24

Dean

School of Sciences ,

ITM University

Gwalior (M.P.)

Dr. Harisharan Goswami

Omcar India Pvt. Ltd

Gwalior, (M.P)



Director

OMCAR INDIA

Goswami Shastri Bhawan
Mahalgaon, City Center, Gwl.-474011



Prof. (Dr.) Yogesh C Goswami

Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

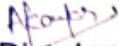


Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



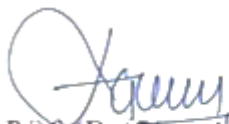
CERTIFICATE

This is to certify that the project entitled "**Production of Mushroom Spawn of medicinally important *Pleurotus ostreatus* (Oyster) mushroom** " has been carried out by **Ms. Shruti Gupta (BSBN3BT22T01)**, student of B.Sc. (Hons) Biotechnology, from School of Sciences, ITM University, Gwalior, under my supervision and guidance during the period from 07/03/2024 to 07/04/2024.


Director
OMCAR INDIA
Goswami Shastri Bhawan
Mahalgaon, City Center, Gwl.-474011
(Dr.) Harisharan Goswami

Omcara India Pvt. Ltd.

Gwalior, (M.P)



Prof. (Dr.) Yogesh C Goswami

Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001


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

Details of PG Research Projects

Name of the School: School of Science and Research, ITM University, Gwalior.

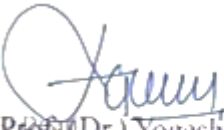
Name of the Course and Branch: M.Sc. Biotechnology

Session: 2022– 2023

Total No. of Students enrolled: 07

List of Students

S.No	Roll No	Name Of Students	Name of Industry/Institute	Topic	Supervisor
1	MSMN1BT22001	Swati Rathore	Sun pharmaceuticals, Malanpur, Gwalior (M.P)	Isolation, Production, and optimization of Secondary Metabolite from Endophytic Bacteria Isolate	Dr. Sudhir Mukrariya Head, Microbiology
2	MSMN1BT22002	Sunena Bamoriya	ICMR-NIRTH, Jabalpur, (M.P)	Study on the role of neuroinflammation involved in the pathogenesis of dengue viral disease	Dr. Rituraj Niranjan Scientist D, Department of Immunology
3	MSMN1BT22003	Shubham Gole	Omcarr India Pvt. Ltd. Gwalior (M.P)	Cultivation and practice of milky mushroom on various agrowaste materials	Dr. H.S. Goswami (Head)
4	MSMN1BT22004	Ocean Khan	Pinnacle biomedical research Institute, Bhopal (M.P)	Development Of <i>Manilkara Zapota</i> Based Oral Rinse and Evaluate Its Antibacterial Efficacy Against Dental Pathogens	Ms. Swati Gokhe (Research Associate)
5	MSMN1BT22006	Atharava Agarwal	Omcarr India Pvt. Ltd. Gwalior (M.P)	Effect Of Different Substrates on Yield and Quality of <i>Pleurotus sajorajjo</i> Mushroom And Evaluation Of Antibacterial Activity	Dr. H.S. Goswami (Head)
6	MSMN1BT22008	Neha Sharma	Department Of Biotechnology & Microbiology, School of Sciences, ITM University, Gwalior	Isolation And Characterization of Salt-Tolerant Rhizobacteria from The Root Nodules of Mungbean	Dr. Sadhna Chaturvedi (Assistant Professor)
7	MSMN1BT22010	Lalit Prajapati	Department Of Biotechnology & Microbiology, School Of Sciences, ITM University, Gwalior	Biochemical characterization and sex determination using molecular markers in <i>Simarouba glauca</i>	Dr. Rita Sharma (Assistant Professor)


 Prof. (Dr.) Yogesh C Goswami
 Dean
 School of Applied Sciences
 School of Science ITM University
 Gwalior (M.P.)-INDIA-474001


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



"CELEBRATING DREAMS"

Development Of *Manilkara Zapota* Based Oral Rinse And Evaluate Its Antibacterial Efficacy Against Dental Pathogens

THESIS

Submitted in Partial Fulfilment for the award of the degree of

MASTER OF SCIENCE

IN

BIOTECHNOLOGY



"CELEBRATING DREAMS"

Submitted By

OCEAN KHAN

MSBN1BT22004

Under the Supervision of

Ms. Swati Gokhe

(Sr. Research Associate)

Pinnacle biomedical research Institute, Bhopal (M.P)

Under the Co-Supervision of

Dr. Rita Sharma

(Assistant Professor)

Department of Biotechnology/ Microbiology

School of Sciences

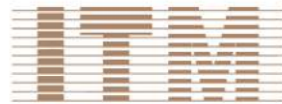
ITM UNIVERSITY, GWALIOR- 474026 MP, INDIA, 2024

Prof. (Dr.) Yogesh C Goswami

Dean

School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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



UNIVERSITY
GWALIOR • MP • INDIA

"CELEBRATING DREAMS"

**Biochemical Characterization & Sex Determination using
Molecular markers in *Simarouba glauca*
THESIS**

Submitted in Partial Fulfilment for the award of the degree of

MASTER OF SCIENCE

IN

BIOTECHNOLOGY



UNIVERSITY
GWALIOR • MP • INDIA

"CELEBRATING DREAMS"

Submitted By

**LALIT PRAJAPATI
MSBN1BT22010**

Under the Supervision of

**Dr. Rita Sharma
(Assistant Professor)**
Department of Biotechnology
School of Sciences

ITM UNIVERSITY, GWALIOR- 474026 MP, INDIA, 2024

Prof. (Dr.) Yogesh C Goswami
Dean
School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

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



UNIVERSITY
GWALIOR • MP • INDIA

"CELEBRATING DREAMS"

**A Study On The Role Of Neuroinflammation Involved In The Pathogenesis
Of Dengue Viral Disease**

THESIS

Submitted in Partial Fulfilment for the award of the degree of

MASTER OF SCIENCE

IN



UNIVERSITY
GWALIOR • MP • INDIA

"CELEBRATING DREAMS"

BIOTECHNOLOGY

Submitted By

SUNENA BAMORIYA

MSBN1BT22002

Under the Supervision of

Dr. Rituraj Niranjana

Scientist D, Division of Immunology

ICMR-NIRTH, Jabalpur (M.P)

Prof. (Dr.) Yogesh C Goswami

School of Applied Sciences
School of Science ITM University
Gwalior (M.P.)-INDIA-474001

Dr. Omveer Singh
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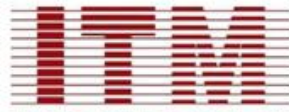


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"CELEBRATING DREAMS"

**ISOLATION AND CHARACTERIZATION OF SALT-TOLERANT
RHIZOBACTERIA FROM THE ROOT NODULES OF MUNGBEAN**

THESIS SUBMITTED IN THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE
OF
MASTERS OF SCIENCE
IN
BIOTECHNOLOGY



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"CELEBRATING DREAMS"

Submitted by

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MSBN1BT22008

Under the Supervision of

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ITM University, Gwalior

Department of Biotechnology/Microbiology

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2024

Prof. (Dr.) Yogesh C Goswami

School of Applied Sciences
School of Science ITM University
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**Details of Industrial Visit/Hands on Training (UG/PG)
On
“Basic Plant Biotechnology and Biochemistry Techniques”**

II Year B.Sc Biotechnology & I & Yr M. Sc Biotechnology – Brief Summary

Objective

The objective of industrial visits /hands on training, provide students with the unique opportunity to witness how theoretical knowledge is applied in practical, industrial settings. Also, aware the students with the Real-world exposure. This firsthand experience enhances their understanding of concepts learned in the classroom. It helps to bridge the widening gap between theoretical learning and practical exposure by giving students first-hand exposure to identify the inputs and outputs of different business operations and processes performed at the workplace

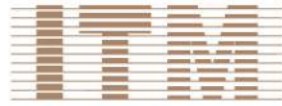
The Department of Biotechnology and Microbiology, School of Sciences, ITM University, Gwalior, has organized three days of hands-on training at the Central Agroforestry Research Institute (CAFRI-ICAR), Jhansi (U.P.), on “**Basic Plant Biotechnology and Biochemistry Techniques**” for the students of Biotechnology and Microbiology from February 01st to February 03rd, 2024. Dr. A Arunachalam (Director ICAR- CAFRI) provided this great opportunity to our students. Training session was inaugurated by chief guest Dr. R.K.Singh (Dean , College of Agriculture, RLBCAU, Jhansi). The training was headed by Dr. K. Rajarajan (Senior Scientist, Plant Genetics) along with Dr. Hirdayesh Anuragi (Scientist, Genetics and Plant Breeding) and Dr. Badre Alam (Principal Scientist, Plant Physiology). Students have learned about the standard operating protocol of laboratories and good laboratory practices (GLP). They have practiced to isolate DNA from the various samples and estimated it using several techniques like Agarose gel electrophoresis, UV spectrophotometer, PCR, RT-PCR, etc. Plant physiological techniques were also taught to the students. Students also gained knowledge of agroforestry with the help of a field visit. They have seen how the agricultural crops can be merged with the forest trees for sustainable agriculture practices. This training was highly beneficial for our student’s future research prospects. The training was organized by Dr. Rita Sharma (Assistant Professor, biotechnology) under the supervision of Dean SOS Prof. Y.C. Goswami and the complete session was reported by Dr. Rekha Vashishtha (SOS) .It has been a wonderful experience for our students.


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The outcomes of Hands-on Training for BSc Biotechnology students include:

- **Cognitive Knowledge:** To provide education that leads to comprehensive understanding of the principles and practices of biotechnology.
- **Enhanced Research Skills:** Students gain hands-on experience by doing experiential learning, honing their research skills and competence.
- **Increased critical thinking ability:** Provides opportunities to plan organize and engage in active learning experiences both inside and outside the classroom
- **Improved Communication and Research Skills:** Exposure to eminent and distinguished persons in different fields through talks encourages students to take on greater responsibility, fostering professional growth, and enhancing confidence in their research practice.
- **Information and Computer Literacy:** To educate and make them up to date with the current scientific literature, computer programs and web information.
- **Preparation for Future Practice:** Hands on training provides valuable experiential learning opportunities that prepare students for their future roles as competent and compassionate biotechnologists in various research organizations, industries or health care sectors.


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**List of Students –Attended Hands on Training
(CAFRI-Jhansi U.P)**

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**Attendance of Students of BSc & M. Sc (BT/MB) II & IV Semester
In Hands on Training at ICAR-CAFRI, Jhansi (U.P)
Date: 01st- 3rd February 2024**

S No	Name	Roll No	Signature
1	Sudeshna Nag	BSBN1BT22007	
2	Shubhansi Rajawat	BSBN1BT22020	
3	Kaushiki Bhadouriya	BSBN1BT22006	
4	Sneha Choudhary	BSBN1BT22036	
5	Jhaanvi Shivhare	BSBN1BT22018	
6	Devraj Malhotra	BSBN1BT22013	
7	Ayush Kumar	BSBN1BT22030	
8	Mohit Savita	BSBN1BT22016	
9	Arvaaj Khan	BSBN1BT22023	
10	Priyanshu Gupta	BSBN1BT22010	
11	Mayank Singh	BSBN1BT22037	
12	Kartikey	BSBN1BT22029	
13	Samiksha Jain	BSMN1MB23006	
14	Nandini Soni	BSMN1MB23001	
15	Saahiba Naaz	BSMN1BT23004	
16	Riya	BSBN1MB22002	
17	Archi Chugh	BSBN1MB22003	

Dr. Rita Sharma
Program coordinator
School of Sciences

Prof. Y.C. Goswami
Dean
School of Sciences

ITM University Gwalior Campus, NH-44, Turari, Gwalior, (M.P.) - 475 001 INDIA
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Students for their Hands on Training at ICAR-CAFRI, Jhansi (U.P)

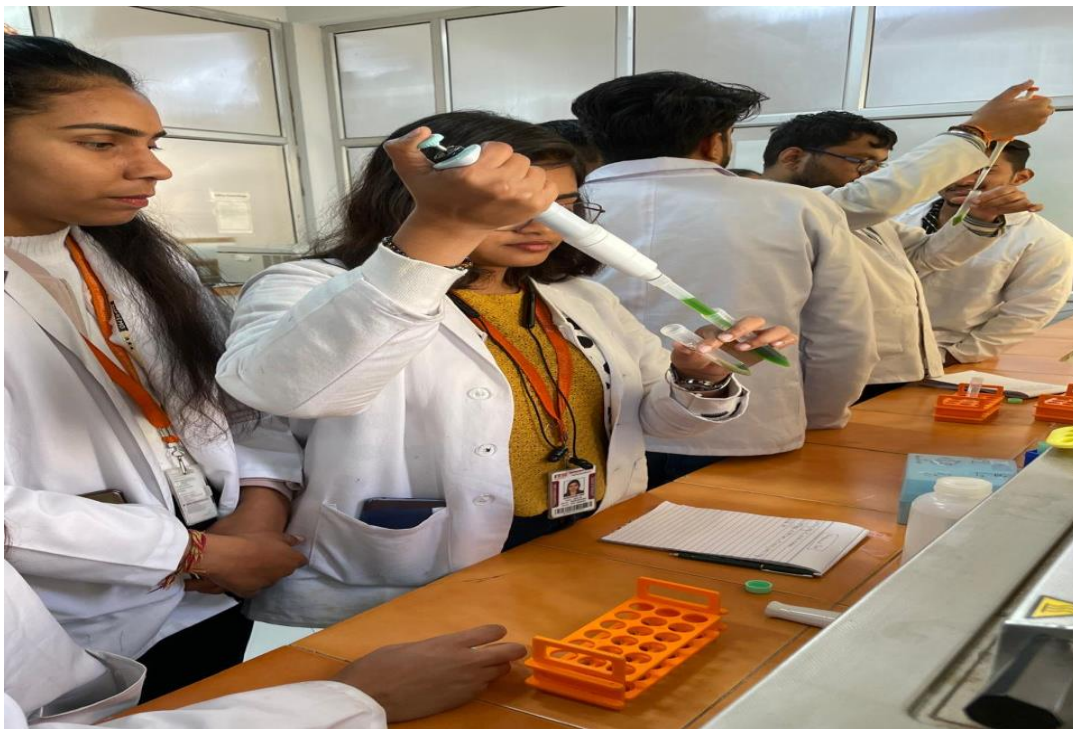


Introductory session at ICAR-CAFRI, Jhansi (U.P)


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Laboratory sessions at ICAR-CAFRI, Jhansi (U.P)



Students doing research practices at ICAR-CAFRI, Jhansi (U.P) under the guidance of Sr. Scientist Dr. K. Rajarajan



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Students doing research practices at ICAR-CAFRI, Jhansi (U.P) under the guidance of Sr. Scientist Dr. Badre Alam
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Field visit at ICAR-CAFRI, Jhansi (U.P) under the guidance of Sr. Scientist Dr. Hridayesh Anuragi



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Valedictory session at ICAR-CAFRI, Jhansi (U.P) with Director CAFRI Dr. A. Arunachalam



Certificate distribution to the participants at ICAR-CAFRI, Jhansi (U.P) with Director CAFRI Dr. A. Arunachalam, Principal Scientist Dr. A. K. Handa


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