

Department of Microbiology

Departmental profile for NAAC

1. Introduction of the Department

- The Department of Microbiology was established in Telangana Tribal Welfare Residential Degree College of Life Sciences for Women in the year 2017 at Nagaram, Nizamabad, in affiliation with Telangana University, Dichpally.
- The first academic batch with 27 students for B.Sc. MZC started in August 2017. The course has Microbiology as main, Zoology, and Chemistry as subsidiaries. The college established especially to encourage students of the local area to take up sciences as their field of study.
- Mrs. A. Anusha M.Sc(Microbiology)joined the department on 22nd September 2017, as a Guest faculty for Microbiology.
- Mrs. K. Kala Jyothi M.Sc(Microbiology)Ph.D joined as a Regular faculty on 14th August 2019.
- Mrs.Bagagoni Prathyusha M.Sc(Microbiology)NET joined as a Regular faculty on 27th August 2024.
- Ms.Jagruthi Deshmukh M.Sc(Microbiology) joined as a Guest faculty on 6th January 2025

VISION, MISSION,

VISION

The vision of the Department of Microbiology is to enable students to become imaginative, integrated beings who constructively and creatively contribute to the environment and society.

MISSION

Our mission is to produce skilled graduates who carry an enthusiasm to choose Microbiology as a research field or professional career in various industries.

2.CURRICULAR ASPECTS:

Program/Course offered with intake Details:

The Department is part of 1 Undergraduate program from 2017.i.e.,

- ❖ BSc.MZC(Microbiology, Zoology, Chemistry)

S.No.	Name of the program	Duration	Eligibility	Intake
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1	MZC	3	Intermediate with 50%Marks	40
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New Grading System w.e.f.2023-24

SGPA (SEMESTER GRADE POINT AVERAGE)			
S. No.	Grade Point	Range of marks	Grade Letter
1	10	Equal to and above 90 Marks	A+
2	9	More than or equal to 80 and less than 90 Marks	A
3	8	More than or equal to 70 and less than 80 Marks	B+
4	7	More than or equal to 60 and less than 70 Marks	B
5	6	More than or equal to 55 and less than 60 Marks	C+
6	5	More than or equal to 50 and less than 55 Marks	C
7	4	More than or equal to 40 and less than 50 Marks	D
8	0	Below 40 Marks	F

SEMESTER II Microbial Diversity	4	2	4+1=5
SEMESTER III Food and Environmental Microbiology	4	2	4+1=5
SEMESTER IV Medical Microbiology and Immunology	4	2	4+1=5
SEMESTER V Molecular Biology and Molecular Genetics	4	2	4+1=5.
SEMESTER VI A Industrial Microbiology	4	2	4+1=5



ACCE		
	HOURS/WEEK THEORY	CREDIT
Environmental science	2	2

PROJECT			
SEMESTER VI	Theory.	Practical	Credit
PROJECT	3.	3	3+1=4

CERTIFICATE COURSES OFFERED:

S.No	Academic year	Name of the certificate course offered	No.of students enrolled	No.of hours
1	2024-2025	Bioinformatics	31	30
2	2023-2024	Protein synthesis	26	30
3	2023-2024	Mycoplasma	25	30
4	2022-2023	Gender sensitization	10	30
5	2022-2023	Basics of Primer Designing	8	30
6	2022-2023	Scientific Report Writing	3	30
7	2022-2023	Sustainable Living	10	30
8	2022-2023	Diagnostic Microbiology	8	30
9	2022-2023	Plagiarism	3	30



10	2021-2022	Gender sensitization	12	30
11	2021-2022	Basics of Primer Designing	6	30
12	2021-2022	Scientific Report Writing	6	30
13	2021-2022	Sustainable Living	12	30
14	2021-2022	Clinical Research	5	30
15	2021-2022	Plagiarism	12	30
16	2020-2021	Food and Health	9	30
17	2020-2021	Basics of Primer Designing	7	30
18	2020-2021	Scientific Report Writing	4	30
19	2020-2021	Physical Activity and Sleep	10	30
20	2020-2021	Clinical Research	7	30
21	2020-2021	Plagiarism	4	30
22	2019-2020	An Introduction to Nutrition and Healthy Living	10	30
23	2019-2020	Basics of Primer Designing	5	30
24	2019-2020	Scientific Report Writing	2	30
25	2019-2020	Exercise and Rest	10	30
26	2019-2020	Basics of clinical Research	4	30
27	2019-2020	Plagiarism	2	30
28	2018-2019	Physical Activity and Sleep	10	30
29	2018-2019	Clinical Research	3	30
30	2018-2019	Basics of Primer Designing		
31	2018-2019	An Introduction to Nutrition & Health Living	9	

Student Study Projects

A.Y.2023-2024

S.N O	Project Name	Guide name	Name of the Student	Hall Ticket Number	Academic year
1	Isolation and identification of bacteria from wound sample	K.Kal a Jyothi	B.Rani	21055081457100 5	2023-2024
2	Isolation and identification of bacteria from wound sample	K.Kal a Jyothi	B.vani	21055081457100 8	2023-2024
3	Isolation and identification	K.kala Jyothi	G.Ruchitha	21055081457101 4	2023-2024



	n of bacteria from wound sample				
4	Isolation and identification of bacteria from wound sample	K.Kal a Jyothi	G.Mounika	210550814571016	2023-2024
5	Isolation and identification of bacteria from wound sample	K.kala Jyothi	K.Maya	210550814571021	2023-2024
6	Analysis of pond water ecosystem	K.Kal a Jyothi	N.Ramya	210550814571037	2023-2024
7	Analysis of pond water ecosystem	K.kala Jyothi	B.Vijetha	210550814571009	2023-2024
8	Analysis of pond water ecosystem	K.kala Jyothi	M.Amruthalax mi	210550814571036	2023-2024
9	Analysis of pond water ecosystem	K.kala Jyothi	U.Ashwini	210550814571039	2023-2024
10	Analysis of pond water ecosystem	K.Kal a Jyothi	B.Savitha	210550814571012	2023-2024
11	Exploring the Microbial Spoilage of Vegetables	K.kala Jyothi	K.Latha	210550814571030	2023-2024
12	Exploring the Microbial Spoilage of Vegetables	K.kala Jyothi	L.Archana	210550814571033	2023-2024
13	Exploring the Microbial	K.kala Jyothi	L.Sharadha	210550814571032	2023-2024



	Spoilage of Vegetables				
14	Exploring the Microbial Spoilage of Vegetables	K.kala Jyothi	K.Anitha	210550814571028	2023-2024

3. Teaching Learning Evaluation

S.N	Name of the faculty	Designation	Qualification	Contact no	Mail.ID
1	Bagagoni Prathysha	Assistant Professor	MSc,NET		
2	Jagruthi Deshmukh	Guest Lecture	MSc	9494463064	jagruthideshmukh123@gmail.com

Year Wise Admission in Microbiology

S.NO	Academic Year	Group	Sanctioned Intake	No.of Students Admitted
1	2017-2018	MZC	40	26
2	2018-2019	MZC	40	21
3	2019-2020	MZC	40	29
4	2020-2021	MZC	40	28
5	2021-2022	MZC	40	28
6	2022-2023	MZC	40	27
7	2023-2024	MZC	40	27
8	2024-2025	MZC	40	13

Evaluation Process

- There are 2 internal examinations and an external Theory exam.
- Student Need to have 75% attendance to attend Theory examination.

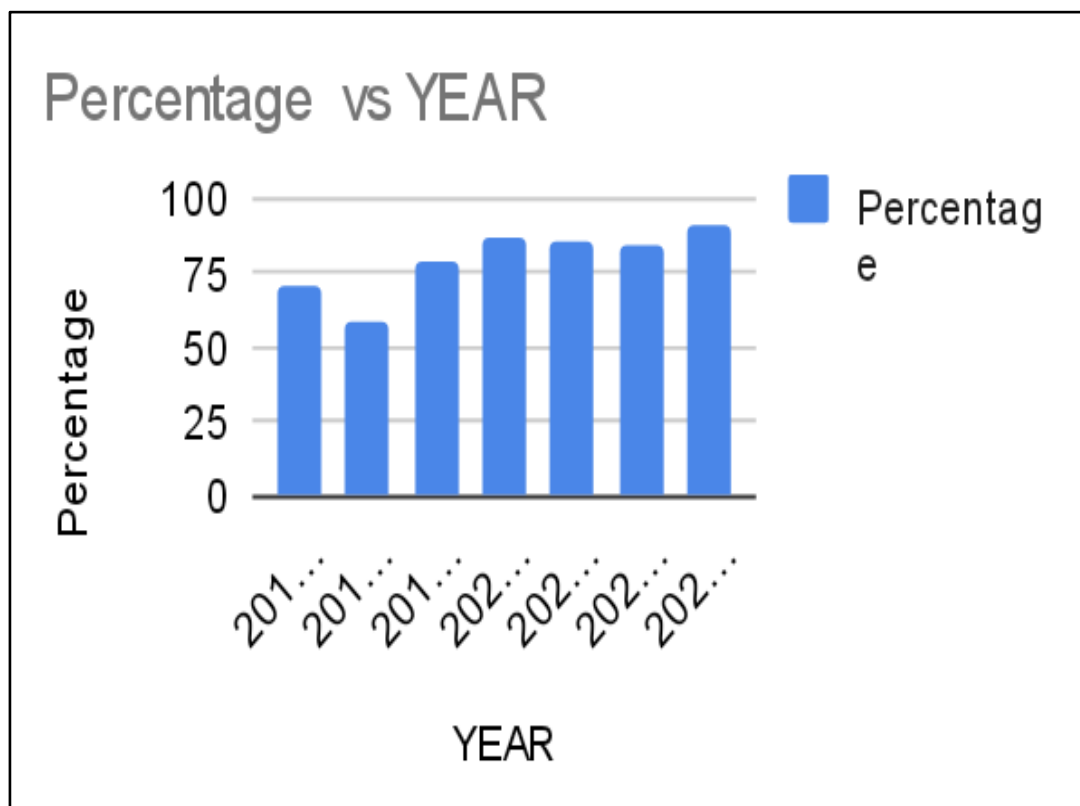


- Each Internal Exam is for 20 Marks- 10 MCQs, 10 Fill in the blanks, 5 1-mark questions. 5 marks for Assignment.
- Practical exam is for 50Marks.
- For SEC/AECC/GE 10 marks given.

Year Wise Results - Microbiology

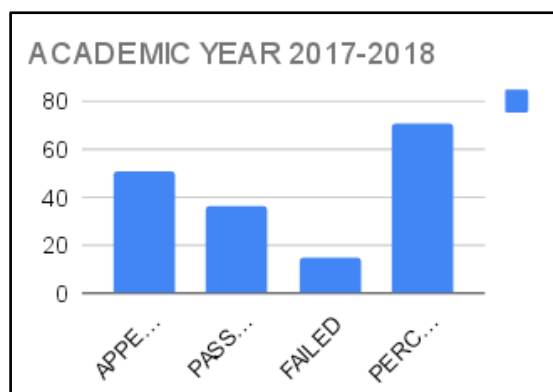
Result Analysis

S.NO	Academic Year	Percentage
1	2017-2018	70.59
2	2018-2019	59.30
3	2019-2020	76.74
4	2020-2021	84.78
5	2021-2022	89.29
6	2022-2023	84.78
7	2023-2024	83.87



Detailed Result Analysis Academic Year 2017-2018

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
II	25	18	7	72
I	26	18	8	69.23
TOTAL	51	36	15	70.5



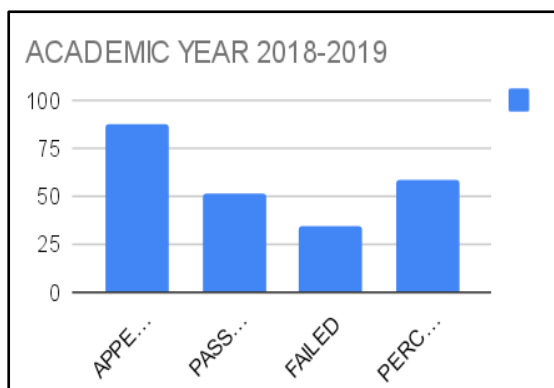
Academic Year 2018-2019 2018-2019 ODD SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
III	24	19	5	79.10
I	21	7	14	33
TOTAL	45	26	19	57.70

2018-2019 EVEN SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
IV	23	15	6	68
II	19	10	9	52
TOTAL	42	25	15	59.50
GRAND TOTAL	87	51	34	58.6



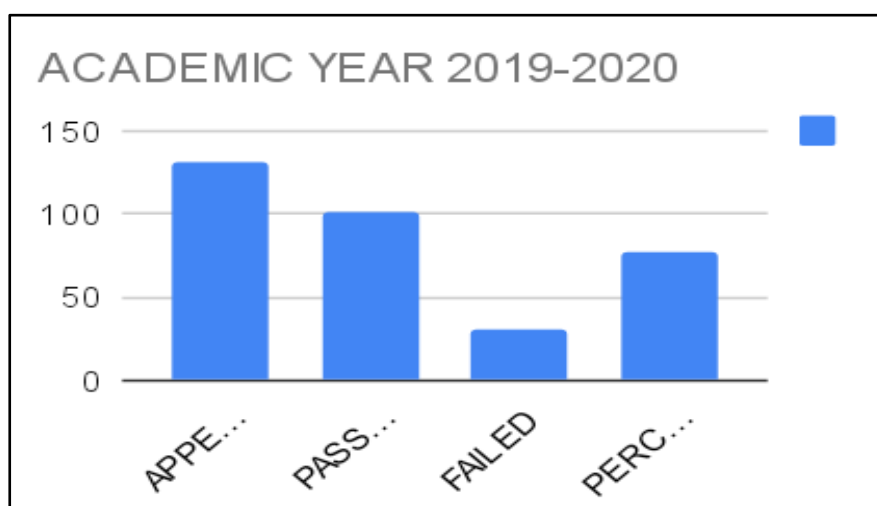


Academic Year 2019-2020 2019-2020 ODD SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
V	21	21	-	100
III	19	9	10	47.30
I	29	11	18	37.90
TOTAL	69	41	28	59.40

2019-2020 EVEN SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
VI	21	21	-	100
IV	17	16	1	94
II	24	23	1	95.80
TOTAL	62	60	2	96.70
GRAND TOTAL	131	101	30	77

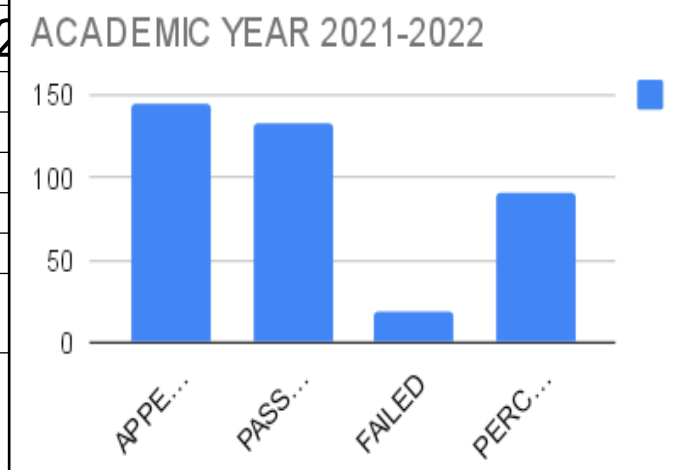


Academic Year 2020-2021 2020-2021 ODD SEM



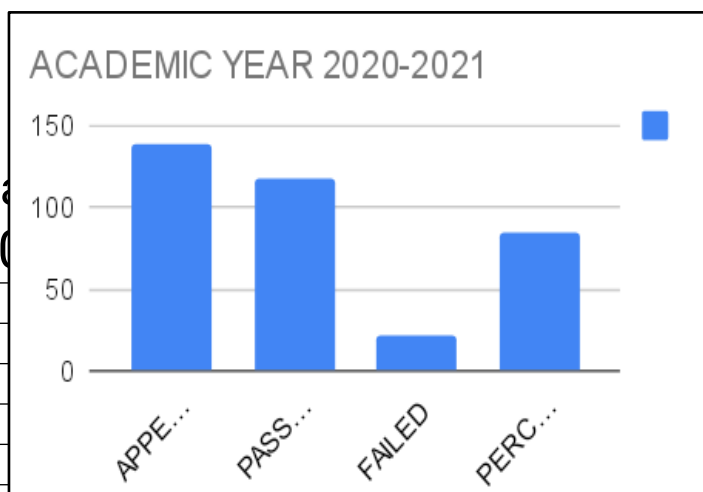
SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
V	17	17	-	100
III	26	25	1	96.10
I	28	28	10	64.20
TOTAL	71	69	11	84.50

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SEMESTER	PERCENTAGE
VI	100
IV	100
II	60
TOTAL	85
GRAND TOTAL	84.7

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SEMESTER	PERCENTAGE
V	91.6
III	52
I	100
TOTAL	90

2021-2022 EVEN SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
VI	23	21	2	91.30
IV	18	14	4	77.70
II	29	29	-	100
TOTAL	70	64	6	91.50
GRAND TOTAL	145	132	19	91

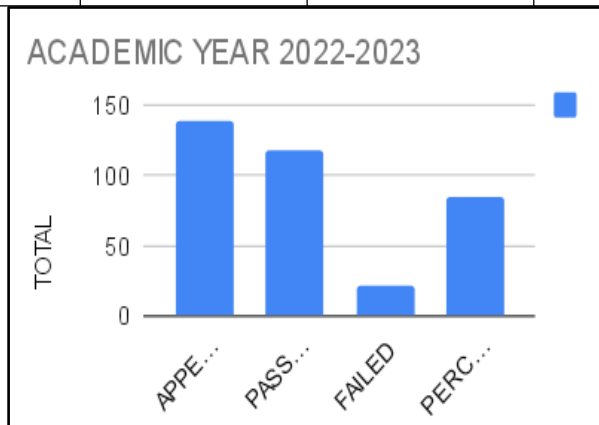


Academic Year 2022-2023A
Academic Year 2022-2023
2022-2023 ODD SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
V	18	13	5	72.20
III	29	29	-	100
I	27	21	6	77
TOTAL	74	63	11	75

2022-2023 EVEN SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
VI	12	12	-	100
IV	27	27	-	100
II	25	15	10	60
GRAND TOTAL	138	117	21	84



Academic Year 2023-2024
2023-2024 ODD SEM

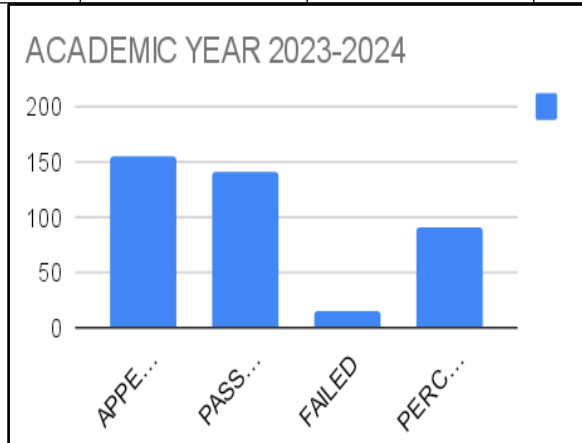
SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
V	27	27	-	100
III	24	22	2	91.60
I	27	28	1	96.20
TOTAL	78	75	3	96

2023-2024 EVEN SEM

SEMESTER	APPEARED	PASSED	FAILED	PERCENTAGE
VI	26	25	1	96.10
IV	23	17	6	73.90
II	27	23	4	85.10
TOTAL	76	65	11	85.50
GRAND	154	140	14	90



TOTAL				
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FIELD TRIP :

Visit to Vijaya Dairy farm as a part of Field trip

- ❖ Department of Microbiology and Chemistry took final year students to Vijaya Dairy farm, Sarangapur. The students saw the process of milk collection, homogenization, pasteurization and packing. Students also learnt the process of fat extraction from milk, ghee preparation, and methods to check the quality of milk.



Visit To Observe Unique Ecosystem



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- ❖ The Departments of Microbiology and Botany took final year students of MZC and BZC to the nearby place to observe unique ecosystems. Faculties explained about various zones in a pond water ecosystem, weathering of rocks, and microbiological aspects of the pond ecosystem. Students also visited the nearby nursery to observe plantations.



Visit to Telangana University

- ❖ The Department of Microbiology took MZC second year students to visit TU to see the Biotechnology Lab .Practical knowledge is as essential as theoretical knowledge to students, particularly in life sciences. To ignite interest in the students in Microbiology, the students were sent to the Biotechnology department of Telangana University. The students were able to see the lab infrastructure and facilities available there. The research scholars were kind enough to show them the tissue culture facility and instruments such as PCR. It



was an inspiring trip for the students.

Visit To Wild Life Sanctuary

- ❖ The Department of Microbiology and Zoology took final year and second year students of MZC on 31/01/2025 to visit Wild Life Sanctuary,Pocharam.This Wild Life Sanctuary is a home for diverse species like deers,peacocks,leopards and offers excellent bird watching opportunities with numerous migratory and resident bird species.We spotted several deers and peacocks during our visit and our guide have mentioned that they have around 300 deers, and it's a "Deer Breeding Center"





CURRICULUM ACTIVITIES

Webinar on Immunology

- ❖ The Department of Microbiology conducted a webinar on "Immunity The natural weapon of human body to combat infections" on 30th Apr 2021. Many students and faculty from all over the state participated in the webinar where Mrs. Prasannasheela, BoS, TU was the resource person. It was a two-hour webinar and the resource person elaborated on various aspects of immunity and the necessity to keep it healthy.



Quiz On Ozone

- ❖ The Department of Microbiology have conducted quiz competition to celebrate "World Ozone Day" to final year students. To commemorate World Drone Day (15th Sept 2023), the Department of Microbiology made presentation on the significance of Ozone layer and Montreal Protocol. We also conducted a quiz the same topic for final-year students. BZC III stood as the winner while MZC III were the runners.



Quiz On HIV

- ❖ The Department of Microbiology have conducted An E Quiz on the occasion of HIV Vaccine Awareness Day on 18th May 2021. The quiz was open for two days, and all who participated and scored above 50% were awarded a certificate.



Seminar & Workshops

S.NO	PROGRAM	DURATION	ROLE	ORGANIZED BY
1	FDP(ONLINE)	6 WEEKS	Participation	SWAYAM
2	FDP(OFFLINE)	6 DAYS (21/8/23-26/8/23)	Participation	UGC-IKS
3	FDP(OFFLINE)	3days (17-19 May 2023)	Participation	WOXSEN UNIVERSITY



4	INTERNATIONAL COURSE ON ADVANCES IN BIOLOGY AND MEDICINE	3Days 21-23 Feb 2023)	Organising Committee Member	TSWREIS & TSWREIS
5	BIOANVESHA	3 Days	Award winner	Dept. Biotechnology and Bioinformatics,SLS,UoH

Extra curricular activities

National Girl Child Day And International Day Of Education

- ❖ The Departments of Microbiology and Computer Sciences organized a program comemorating National Girl Child Day and International Day Of Education on 24/01/2023. We conducted an Essay writing competition about the importance of education in one's life. Many students participated in the program with enthusiasm.



World Tuberculosis Day

- ❖ The department of Microbiology in coordination with NSS unit conducted a rally and awareness program on the occasion of World Tuberculosis Day on 25/03/2023. The students visited a nearby village and educated the villagers about risks of TB and how to prevent the infection. Final year students participated in the program,



Blood Donation Program

- ❖ Today, the 14th of June, persons from the IMA have visited our college and explained to the students about the importance of blood donation and how one can save another persons life in time of need. All the second year students participated in the program and learnt a lot. They asked doubts about blood donation.



NATIONAL DEWORMING DAY

- ❖ As a part of National Deworming Day (10 Feb), the Department of Microbiology and Health Department conducted a Deworming camp for all the students. Officials from DMHO also visited and provided Albendazole tablets to all the students. The program was also attended by Mr. Suresh, Additional Regional



Coordinator, Medak, Kamareddy and Nizamabe regions



World Malaria Day

- ❖ The Departments of Microbiology and Botany observed World Malaria Day on 25/04/2023. Students participated in the program and made a display of posters. Students spoke about the pathogen, how it is transmitted, and the preventive measures to be taken to save from malarial infection. The program was attended by all faculties and students.



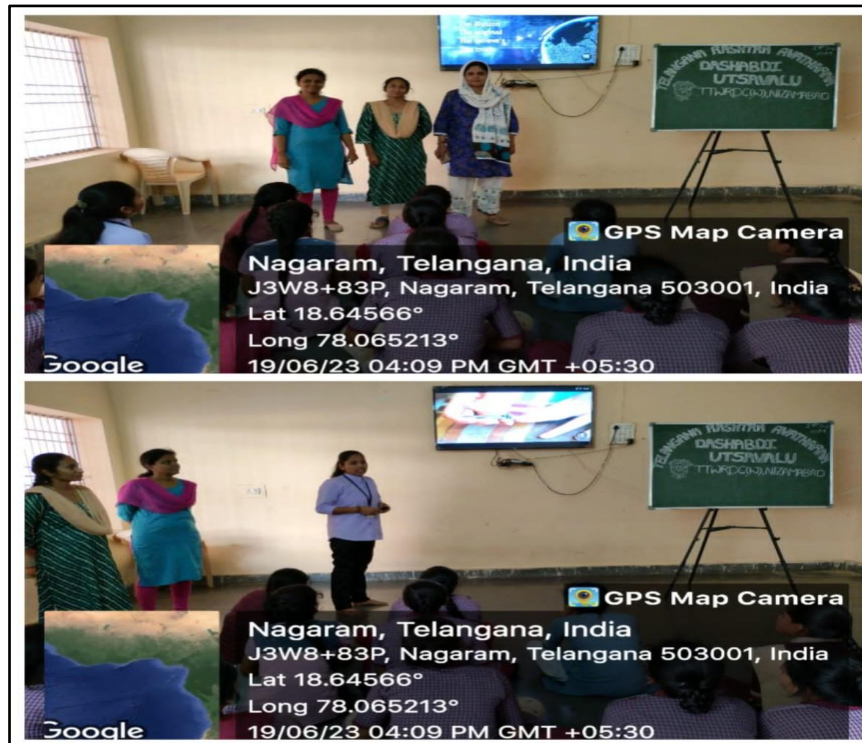
Awareness Against Superstition

- ❖ The departments of Microbiology and Mathematics conducted an awareness program- Superstitions as a part of Telanagana Rashtra Avatarana Dasabdhi Utsavalu on



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19/06/2023. All final year students participated in the program. T. Amrutha of MPCs III presented a power point on "Superstitions and Science". She spoke about how deep rooted the superstitions are in the society, the need to break them. through science.



4. Research, Innovation, Extension

Guest Lectures:

- ❖ Mrs. K. Kala Jyothi, HoD Microbiology had given a guest lecture on Future Prospects in Microbiology to the MZC students of TTWRDC (W), Siricilla on 4 Aug 2023. About 30 students participated in the program and cleared their doubts regarding their career choices in the field of Microbiology.





- ❖ Mrs. K. Kala Jyothi, HoD Microbiology gave a guest lecture on Bacteria-Diseases and Uses, to the students of the Botany Department on 3 Jan 2021. About 30 students participated in the talk and cleared their doubts regarding Microbiology.



- ❖ . Mrs. K. Kala Jyothi, HoD Microbiology had given a guest lecture on Introduction to Microbiology and Bacteria, to the students of Botany Department on 4 Mar 2020.





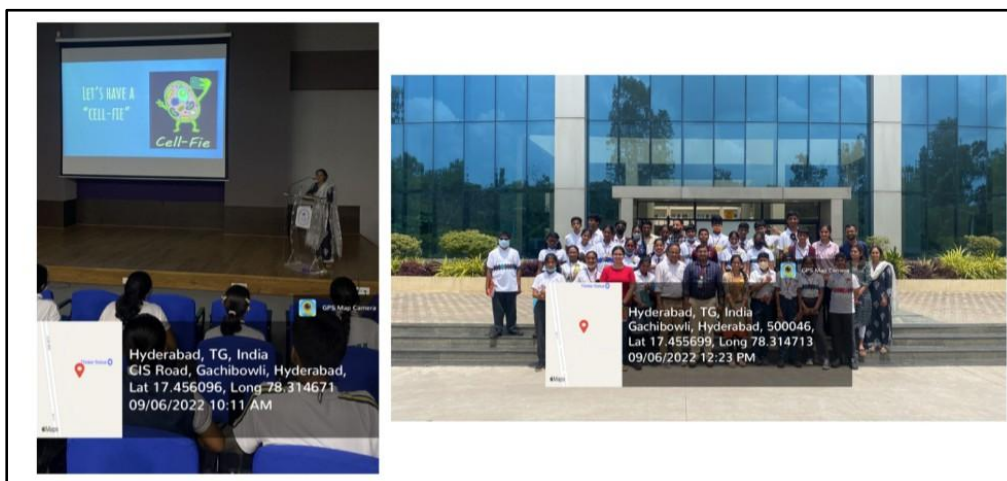
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Extension lectures:

- ❖ An extension lecture was given to the Microbiology students of GG College on 15 Oct 2019 about Bacterial Growth Media.

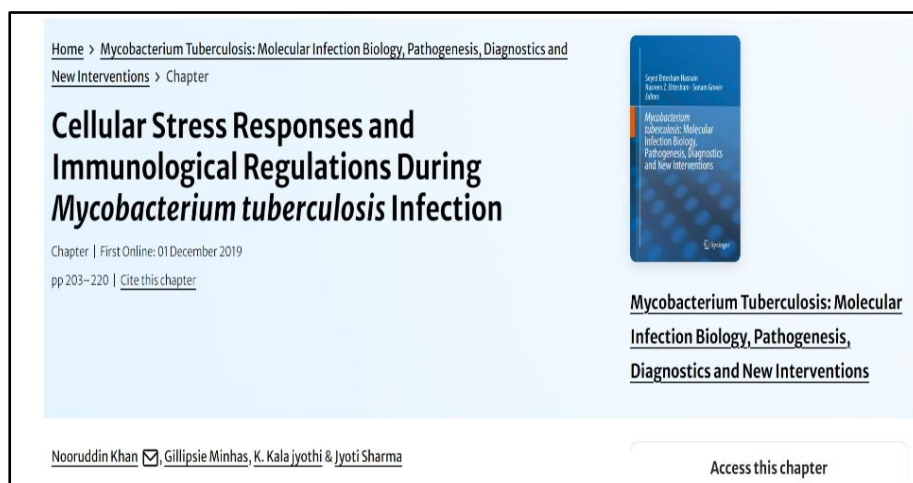


- ❖ Mrs. K. Kala Jyothi, HoD Microbiology had given a talk to the higher grade students of Glendale International School on Basics of Immunology at the Auditorium, School of Life Sciences, University of Hyderabad on 9 June 2022. The students has visited the University as a part of exposure to research environment. The studens were also taken to visit all common lab facilities in the School and informed about the purpose and applications of the machinery.

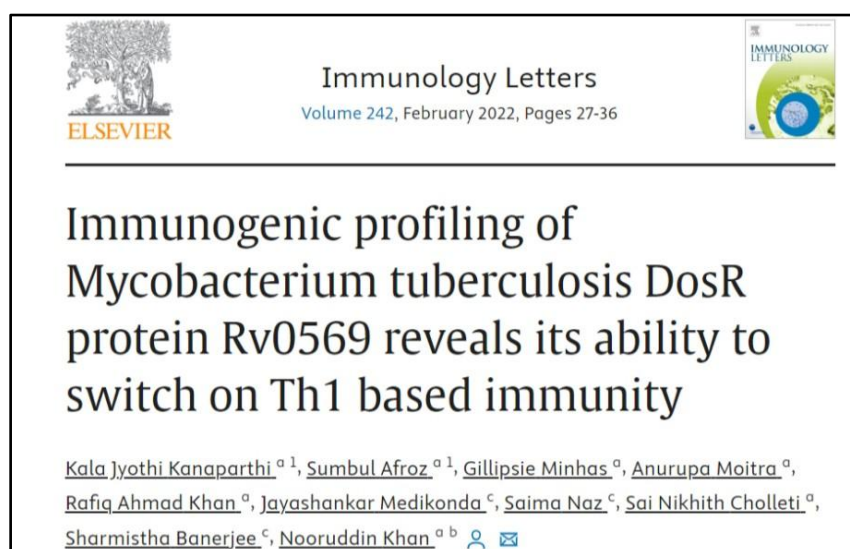


Publications:

- ❖ Mrs. K. Kala Jyothi has co-authored a book chapter in the book entitled- Mycobacterium tuberculosis: Molecular Infection Biology, Pathogenesis, Diagnostics and New Interventions in the year 2019.



- ❖ Mrs. K. Kala Jyothi published her research article in the journal Immunology Letters in the year 2021. Currently, the journal has an impact factor of 4.4.



5. Infrastructure And Learning Resources

- ❖ Department of Microbiology Own a small departmental Library with 25 books. The college Library have 260 Microbiology books
- ❖ The Microbiology lab is currently equipped with an Autoclave, Incubator, Hot Air Oven, Water Bath, Laminar Air Flow, Portable centrifuge, Gel Electrophoresis, Anaerobic Cultural Jar, Spectrophotometer



6.Student Support And Progression:

The Department of Microbiology is giving PG entrance Coaching to intrested III year students from 2017-2018

- ❖ Time 4PM-5PM daily
- ❖ Weekly Test and Grand Tests are Conducted
- ❖ CPGET(Common entrance test for PG admission in Telangana State) Syllabus is taught
- ❖ List of Students Benifited from PG coaching

S.No	Course	Name	Academic Year	University	Pg Course
1	Mzc	G.Manasa	2021-2024	Central University Of Tamilnadu	Msc Microbiology
2	Mzc	B.Rani	2021-2024	Mahatma Gandhi University	Msc Biochemistry
3	Mzc	B.Vaishnavi	2021-2024	KIMS Degree & Pg College, Karimnagar	Msc Microbiology
4	Mzc	K.Akhila	2021-2024	KIMS Degree & Pg College, Karimnagar	Msc.Microbiology
5	Mzc	L.Archana	2021-2024	SSR College, Nizamabad	Msc.Microbiology
6	Mzc	L.Sharadha	2021-2024	Palamuru University	Environment sciences
7	Mzc	B.Rani	2021-2024	SSR College,Nizamabad	Msc Biochemistry
8	Msc	G.Anitha	2020-2023	University College of Science	Msc Environmental science
9	Mzc	Jadav Ramadevi	2019-2022	Jahnavi Group Of Institution Degree and Pg College	Msc Microbiology
10	Msc	Ch.Sushma	2017-2020	Government Degree and Pg College,Gajwel	Msc Microbiology



11	Msc	N.Anjali	2017-2020	University College of Science	Msc Forensic Science
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7. Governence, Leadership and Management

Faculty Attended Seminar/Conference:

S.NO	PROGRAM	DURATION	ROLE	ORGANIZED BY
1	FDP(ONLINE)	6 WEEKS	Participation	SWAYAM
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5	BIOANVESHA	3 Days	Award winner	Dept. Biotechnology and Bioinformatics,SLS,UoH
6	POISE	16-21 Oct 2023	Attended	Kanha Shanti Vanam,Hyd
7	BioMe23	3 Days	Participation	School of Life science
8	BIOASIA23 Conference	24-26 Feb 2023	Participation	Hyderabad International Convention Center,HYD
9	Webinar	15-5-2020	Participation	Bhavani Vivekananda College

Faculty Details :

S.No	Name of the Lecture	Subject	Qualification	Date of Appointment	Mode of Appointment
1	Mrs.A.Anusha	Microbiology	M.sc	22/09/2017	Guest
2	Mrs.K.Kalajyoti	Microbiology	M.sc,NET,Phd	14/08/2019	DR
3	Mrs.Bagagoni Prathyusha	Microbiology	M.sc,NET	27/08/2024	DR
4	Ms.Jagruthi Deshmukh	Microbiology	M.sc	6/01/25	Guest

8. Departmental Activities :





POSTER



IMPORTANT DAYS





FIELD TRIPS





LABS



AWARENESS



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VISIT

