

**SREE SIDDAGANGA COLLEGE OF ARTS,  
SCIENCE AND COMMERCE FOR WOMEN,  
TUMKUR**



**DEPARTMENT OF  
MICROBIOLOGY**

Report of

**BRIDGE COURSE**

**“BASICS OF  
MICROBIOLOGY”**

**2024-25**



Date : 24-09-2024

TO  
The Principal  
SSCASCW  
Tumkur

Subject : Seeking the permission to conduct Bridge Course for I BSc (SEP) -2024-25.

Dear Sir


The Department of Microbiolgy would like to inform you that, our department plans to conduct a Bridge Course for I BSc CZM students.

In this regard, I kindly request your permission to hold the Bridge Course from September 26, 2024 to October 04, 2024.

Thanking you

Yours faithfully

Prof. G. Chidanandamurthy

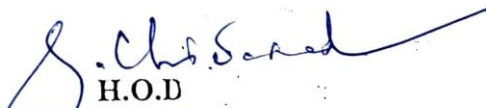
  
PRINCIPAL  
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Sree Siddaganga College of Arts  
Science and Commerce for Women  
B.H. Road, TUMKUR.


  
HEAD OF THE DEPT. OF BOTANY  
Sree Siddaganga College of Arts,  
Science & Commerce for Women  
TUMKUR-572102

Date : 25-09-2024

## Notice

This is to notify that, Dept. of Microbiology, with prior permission of principal has decided to start Bridge course in Microbiology department for the B.Sc first year students from 26-09-2024 to 04-10-2024.

  
H.O.D  
Head of the Department of Biology  
Sree Siddaganga College for Women  
TUMKUR - 572 103

  
PRINCIPAL  
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**SREE SIDDAGANGA COLLEGE OF ARTS, SCIENCE AND COMMERCE FOR WOMEN,  
TUMKUR**

**DEPARTMENT OF MICROBIOLOGY  
BRIDGE COURSE  
Course Title : "Basics of Microbiology"  
SESSION 2024-25**

The Bridge Course was organized By the Department of Microbiology for newly admitted students of B. Sc. First year. The course was conducted before the comessment of first semester classes. The syllabus includes concept of 12<sup>th</sup> standard level and prerequisite of B. Sc. course. The main objective of the course is to bridge the gap between subjects to be studied at university level and 12<sup>th</sup> standard, personality development and guidance for future carrier opportunities.

1. The 07 days Bridge Course was organised by department of Microbiology, total 15 students enrolled for the course.

2. The course was inaugurated by the Principal Dr. H.M Dakshinamurthy, along with the IQAC Coordinator and Head of the Department of Microbiology Prof. G Chidanandamurthy.

3. Over 15 newly admitted students from the B.Sc. First year SEM-I participated in the programme.

#### **4. Aim of the Programme**

The course was designed to provide a solid understanding of the subject such as development of academic standard and academic performance.

To gradually increase the self confidence to face exams and syllabus of the new change pattern.

The conducted classes consisted of theory and hands on Practicals. The classes has started from 26/09/2024 and lasted till 04/10/2024. At completion of the course, the participated students have awarded with certificate.

#### **5. Outcome of the Programme**


Students will become familiar to curriculum and examination.

Students will be able to design their own study schedule.

Students will be acquainted well with the curricular and extracurricular activities.

Students will be able to manage personal responsibilities.

At the end students are awarded with the certificate of participation and workshop concluded with the valediction and views of the students.

  
H.O.D  
Head of the Department of Biology  
Sree Siddaganga College for Women  
TUMKUR - 572 109

**Signature of HOD**

**SREE SIDDAGANGA COLLEGE OF ARTS, SCIENCE AND COMMERCE FOR  
WOMEN, TUMKUR**

**DEPARTMENT OF MICROBIOLOGY  
BRIDGE COURSE**

**Course Title : “Basics of Microbiology”  
SESSION 2024-25**

**Basics of Microbiology:**

Comparison of general Biology and Microbiology. Definition, Branches of Microbiology, and its Importance science

**Physiology:**

Basic Concept Discussion of the Physiology of Plants, Animals. Bacteria, Basics Components, and Their relevance to microbiology.

**Building block molecules:**

Discussion of four major biomolecules studied in general biology and their importance in microbiology, metabolism and enzymes.

**Relationship of microbes between plants and animals:**

Discussion of microbes role in plants growth, photosynthesis, nitrogen fixation, biofertilizer, discussion of microbes, role in animals, good and bad bacteria, normal flora and infections.(Typhoid, dysentery, food poisoning etc).

**Advance infectious agent (virus):**

Definition, physiology, classification(bacterial, plant and animal viruses), disease (Pandemic Corona), vaccines.

**Immunology:**

General concept of immunology, discussion on immunity and terminology used in immunology in general, including antigens and antibodies and their roles.

**Parasitology:**

General discussion of parasites: Definition, types and Diseases Malaria, filariasis, amoebiasis etc.,

**Microbes in human welfare:**

Microbes in household food processing, microbes in industries, and microbes waste management, in brief, Microbes as biocontrol agents, Microbes in biogas production

**Genetics and Molecular Biology:**

Discussion of the specific role of genetics and molecular biology in general biology and its comparison with bacteria and viruses, Discussion of gene, genome, plasmid, genetic code, replication, transcription, and translation roles in bacteria.

**Advances in microbiology:**

Discussion of Recombinant DNA Technology, PCR, and Transgenic Plants and Animals

**Introduction to Basic Instruments and Classware:**

**Glassware:** conical flask, volumetric flask, beaker, pipette, burette, measuring cylinder, etc., their ranges, uses, and calibrations.

**Instruments:** Incubator, oven, balance (single pan and digital), BOD incubator, microscope, water bath, pH metre, colorimeter, autoclave, etc., uses, handling, and calibrations.

**Preparation of reagents and media:** percent, normal, and molar solutions preparations, broth and media preparations, slant and plate preparations, storage and maintenance of culture.

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**SREE SIDDAGANGA COLLEGE OF ARTS, SCIENCE AND COMMERCE FOR WOMEN, TUMKUR**

**DEPARTMENT OF MICROBIOLOGY**

**BRIDGE COURSE**

**Course Title : "Basics of Microbiology"**

**SESSION 2024-25**

**List of the students enrolled for the programme**

<b>Sl.No</b>	<b>Name of the students</b>
01.	Anjana Priya . B
02.	Apeksha . S
03.	Asma
04.	Chandana . B
05.	Farheen
06.	Hema
07.	Keerthana. G. K
08.	Kusuma. K. R
09.	Lakshmi. B. K
10.	Lakshmi. R
11.	M. R. Kalakusuma
12.	Prarthan . L
13.	Rakshitha
14.	Varshini. H.M
15.	Yamuna. C

**Signature of HOD**

  
H.O.D  
Head of the Department of Biology  
Sree Siddaganga College for Women  
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**SREE SIDDAGANGA COLLEGE OF ARTS, SCIENCE AND COMMERCE FOR  
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**DEPARTMENT OF MICROBIOLOGY  
BRIDGE COURSE – PROGRAMME REPORT**

**Course Title : “Basics of Microbiology”**

**SESSION 2024-25**

<b>Course duration</b>	07 Days
<b>Time table</b>	26-09-2024 to 04-10-2024, 9.30 AM to 12.30 PM
<b>Place</b>	Dept. of Microbiology, Microbiology laboratory
<b>Course teacher</b>	1. Prof. G. Chidanandamurthy 2. Smitha. N 3. Lavanya Shree. S
<b>Course for class</b>	B.Sc first year Microbiology students
<b>Nature</b>	Academic
<b>Objectives</b>	1) To prepare students for the thorough knowledge of the specific subjects 2) To develop interest in Microbiology subjects 3) To develop scientific attitude towards basic sciences 4) To make teaching-learning process smooth and student friendly
<b>Brief information about course</b>	Bridge course is essential for degree students as they have entered from general subject Biology to specific subject Microbiology. Though students learnt Microbiology as a part of biology in 10+2 level, now they are going to become specialized in Microbiology. It is a preparatory course with an academic curriculum that is offered to under graduate students as a means of preparing for the intellectual challenges of higher education.
<b>Outcomes</b>	<ul style="list-style-type: none"><li>• Students will become familiar to curriculum and examination.</li><li>• Students will be able to design their own study schedule.</li><li>• Students will be acquainted well with the curricular and extracurricular activities.</li><li>• Students will be able to manage personal responsibilities.</li></ul>
<b>Feedback analysis</b>	1) Students have been familiar with basics of Microbiology. 2) It has proved fruitful to build confidence to the students. 3) Bridge course developed students scientific reasoning and thinking.
<b>Supporting documents</b>	Notice, attendance and photos

  
H.O.D  
Head of the Department of Biology,  
Sree Siddaganga College for Women,  
TUMKUR - 572 103

**HOD**

  
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R.H. Road, TUMKUR.

**Principal**



**DEPARTMENT OF MICROBIOLOGY**  
**BRIDGE COURSE TIMETABLE**  
**2024 – 2025**

Sl. No	Date	Time	Faculty Members	Topic
01.	26/09/2024	09:30 AM – 11:00 AM	Lavanya Shree. S	Basics and Scopes of Microbiology
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Branches of Microbiology
02.	27/09/2024	09:30 AM – 11:00 AM	Lavanya Shree. S	Bacteriology
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Mycology, Phycology
03.	28/09/2024	09:30 AM – 11:00 AM	Lavanya Shree. S	Microbial Physiology
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Microbial Genetics
04.	30/09/2024	09:30 AM – 11:00 AM	Lavanya Shree. S	Study of Microbiology Laboratory Instruments
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Microbial Staining Techniques
05.	01/10/2024	09:30 AM – 11:00 AM	Lavanya Shree. S	Preparation of Reagents
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Preparation of Culture Media
06.	03/10/2024	09:30 AM – 11:00 AM	Smitha. N	Immunology
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Medical Microbiology
07.	04/10/2024	09:30 AM – 11:00 AM	Smitha. N	Industrial Microbiology
		11:00 AM – 12:30 PM	G. Chidanandhamurthy	Fermentation Technology

  
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**B.H. Road, TUMKUR.**

Principal

**Supporting Documents : Attendance**

**ATTENDANCE REGISTER**

T B Sc (1st)

2024-2025

For the m

Class

Name of the Institution	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	
1. Anjana Triya	P	P	P	P	P	P	P	P													
2. Apeksha S.	P	P	P	P	P	P	P	P													
3. Chandana B.	P	P	P	P	P	P	P	P													
4. Tasheen	P	P	P	P	P	P	P	P													
5. Hema	A	A	P	P	P	P	P	P													
6. Keethana G.K.	P	P	P	P	P	P	P	P													
7. Kusuma K.R.	A	A	P	P	P	P	P	P													
8. Lakshmi B.K.	P	P	P	P	P	P	P	P													
9. Lakshmi R.	P	P	P	P	P	P	P	P													
10. M.P. Kalakusuma	P	P	P	P	P	P	P	P													
11. Bashtara L.	P	P	P	P	P	P	P	P													
12. Rakshitha	P	P	P	P	P	P	P	P													
13. Varshini H.M.	P	P	P	P	P	P	P	P													
14. Yamuna C.	P	P	P	P	P	P	P	P													
15. Abma	A	A	P	P	P	P	P	P													
beginning of the Month																					
during the month																					
ending month																					
end of the month																					
working days																					

No. Present

Initials

SS	SS	SS	SS	SS	SS	SS	SS	SS	SS

Basis and Scope of Microbiology

Microbial diversity

Physiology and genetics of Micro

Instruments used in Microbiology

Preparations of reagents and Media.

Study of Immunology & Medical Microbiology

Medical microbiology and Immunology

## BRIDGE COURSE PHOTOGRAPHS



# CERTIFICATES



SIDDAGANGA EDUCATION SOCIETY  
SREE SIDDAGANGA COLLEGE OF ARTS, SCIENCE AND COMMERCE  
FOR WOMEN, TUMKUR



## DEPARTMENT OF MICROBIOLOGY

### CERTIFICATE OF PARTICIPATION

This is to certify that Ms. Anjana Priya has successfully completed the bridge course on "BASICS OF MICROBIOLOGY " from 26/9/2024 to 4/10/2024 organized by Department of Microbiology during the Academic year 2024-2025

  
H.O.D  
Head of the Department of Microbiology  
Sree Siddaganga College for Women  
TUMKUR - 572 102

**G. Chidanandamurthy**  
Head of the Department

  
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B.H. Road, TUMKUR.

**Dr. H.M. Dakshinamurthy**  
Principal



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FOR WOMEN, TUMKUR



## DEPARTMENT OF MICROBIOLOGY

### CERTIFICATE OF PARTICIPATION

This is to certify that Ms.Chandana. B. has successfully completed the bridge course on "BASICS OF MICROBIOLOGY " from 26/9/2024 to 4/10/2024 organized by Department of Microbiology during the Academic year 2024-2025

  
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Head of the Department of Microbiology  
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**G. Chidanandamurthy**  
Head of the Department

  
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**Dr. H.M. Dakshinamurthy**  
Principal