

SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR

UG Department of Microbiology
Add on Course: Medical Microbiology and Immunology
Session 2023-24

Course Coordinator Report

A free Add-On Course for UG students in the Department Microbiology, Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur was held from 09th January 2024 to 11th March 2024. The course title was "Medical Microbiology and Immunology". It is the complete beginner to Expert Course was perfect for anyone who wants to learn Medical Microbiology and Immunology.

The Medical Microbiology and Immunology course is designed to provide a comprehensive understanding of medical microbiology and immunology. It covers the identification and characterization of pathogens, the interactions between pathogens and hosts, and the mechanisms of the immune response. Emphasis is placed on diagnostic techniques and practical skills essential for disease management and research in clinical settings.

The course duration was 10 weeks (30 hours). Two theory classes were engaged on Friday & Saturday and one Practical was engaged in every week. The structure of marking system was 50 marks on theory paper and 40 marks on practical examination including 10 marks for internal. The question paper of theory examination was in MCQ type of 25 questions with four multiple choices. Practical examination was also taken on this course for 40 marks. Internal marks assessment was on the basis of regularity, attendance, assignment submission etc. All the 53 students were present in both theory and practical examination. The result was prepared and certificates were also distributed to the students.

Action Taken: Students gain knowledge about various microbial pathogens, including bacteria, viruses, fungi, and parasites, and their roles in human disease. Students develop practical skills in microbiological and immunological techniques, such as culturing microorganisms, identifying pathogens, and performing immunoassays. The course emphasizes the clinical relevance of microbiology and immunology, preparing students to understand how these principles apply to real-world medical practice, including the development of vaccines, antibiotics, and other therapeutic strategies.



S. Sankar
Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR

UG Department of Microbiology
Add on Course: Medical Microbiology and Immunology
Session 2023-24

To,
The Principal
SSES Amt's Science College,
Congress Nagar, Nagpur-12

Subject: For permission to conduct the add on courses in Microbiology and
Biotechnology department during the session 2023-2024

Respected Sir,

This is to request you that, the teachers of Microbiology and Biotechnology
department have prepared the syllabus and modules of the 30 hours certificate
courses for the session 2023-2024.

The details of the course module, syllabus and time table is submitted here
with.

Hence please permit to run the add on courses and oblige me.

Thanking you

Yours sincerely

HEAD
Department of Microbiology
Science College, Congress Nagar,
NAGPUR.



Permitted
N. S. Gore

SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR


UG Department of Microbiology

NOTICE

Date: 03/01/2024

All the students are informed that **U.G.Department of Microbiology** runs **Add on Course: Medical Microbiology and Immunology** for the session 2023-24. Interested students of B.Sc. are requested to register their names to the course Coordinator Ms. Sanchari Sarkar on or before 08/01/2024.




Ms. Sanchari Sarkar
Course- Coordinator
Add on Course



U.G. DEPARTMENT OF MICROBIOLOGY, SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR

Accredited with CGPA of 3.51 at 'A+' Grade by NAAC, Bangalore
A College with Potential for Excellence
An Institutional Member of APQN
Recognized Center for Higher Learning & Research
A Mentor College under Paramarsh Scheme of UGC, New Delhi
A Mentor College under Paris Sparsh Scheme of Maharashtra State

Add on Course for the Session 2022-23 on Medical Microbiology and Immunology

Course Introduction

This course provides a comprehensive understanding of medical microbiology and immunology. It covers the identification and characterization of pathogens, the interactions between pathogens and hosts, and the mechanisms of the immune response. Emphasis is placed on diagnostic techniques and practical skills essential for disease management and research in clinical settings.

Course Objectives

- **Identify** key pathogens and understand their roles in infectious diseases.
- **Analyze** host-pathogen interactions and their impact on human health.
- **Apply** immunological principles to understand the immune response.
- **Perform** diagnostic techniques for microbial infections and immunological assays.

Registration Date: 29/07/2023

Prof. Atul Bobdey
Coordinator
Dept. of Microbiology

Prof. Mahendra Dhore
Principal
Science College, Nagpur

Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

UG Department of Microbiology

Add-On Certificate Course: Medical Microbiology and Immunology (Session 2023-24)

Course Co-ordinator: Ms. Sanchari Sarkar

Course Description:

Study of pathogens, host-pathogen interactions, and the immune response, including diagnostic techniques.

Skills Gained:

Microbial diagnostics, immunological assays, and disease management

Course Introduction

This course provides a comprehensive understanding of medical microbiology and immunology. It covers the identification and characterization of pathogens, the interactions between pathogens and hosts, and the mechanisms of the immune response. Emphasis is placed on diagnostic techniques and practical skills essential for disease management and research in clinical settings.

Course Outcomes

- Identify key pathogens and understand their roles in infectious diseases.
- Analyze host-pathogen interactions and their impact on human health.
- Apply immunological principles to understand the immune response.
- Perform diagnostic techniques for microbial infections and immunological assays.

Instructional Strategies: Theory class, Practical, Video clips, Models etc.

Evaluation Strategies: Oral discussions and Final MCQ examination

Course Objectives

- Understand the basic principles of medical microbiology and immunology.
- Learn about various pathogens, including bacteria, viruses, fungi, and parasites.
- Explore the mechanisms of the immune system and how it combats infections.
- Gain hands-on experience in microbial diagnostics and immunological testing.

Duration of course: Ten weeks (30 Hours)




Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

UG Department of Microbiology

Add-On Certificate Course: Medical Microbiology and Immunology (Session 2023-24)

Module: The Structure of Syllabus and system of evaluation


Course	Theory Papers and Practical	Total Marks		
		Theory	Internal	Practical
Certificate Course in Medical Microbiology and Immunology	Theory paper- Medical Microbiology and Immunology * Theory examination will be of MCQ pattern having 25 questions each with equal marks.	50	10	40
	* Practical examination will be based on performance evaluation in the laboratory and hands-on-training	100		



Ms. Sanchari Sarkar
Add on Course Coordinator



Dr. Amitabh Halder
IQAC Coordinator
Internal Quality Assurance Cell
(IQAC)
S. S. E. S. A. Science College
Congress Nagar, Nagpur.



Prof. Mahendra Dhole
Principal
Principal
S. S. E. S. Amravati's
Science College, Nagpur.



UG Department of Microbiology

Syllabus of Add-On Certificate Course: Medical Microbiology and Immunology (Session 2023-24)

Course Units

Unit 1: Introduction to Medical Microbiology

- **Topics:**
- Overview of microbiology and its branches.
- Classification of microorganisms.
- Pathogenicity and virulence factors.
- Overview of diagnostic microbiology.
- **Practical 1:**
- Microscopy techniques for identifying microorganisms.

Unit 2: Bacterial Pathogens and Diseases

- **Topics:**
- Major bacterial pathogens and their diseases.
- Mechanisms of bacterial infection and pathogenicity.
- Antibacterial agents and resistance.
- Diagnostic techniques for bacterial infections.
- **Practical 2:**
- Culturing and identifying bacterial pathogens.

Unit 3: Viral, Fungal, and Parasitic Infections

- **Topics:**
- Important viral, fungal, and parasitic pathogens.
- Disease mechanisms and host interactions.
- Antiviral, antifungal, and antiparasitic therapies.
- Diagnostic methods for viral, fungal, and parasitic infections.
- **Practical 3:**
- PCR and serological tests for viral infections.

Unit 4: Immunology and Immune Response

- **Topics:**
- Components and functions of the immune system.
- Innate and adaptive immunity.
- Immunopathology and autoimmune diseases.
- Vaccination and immunotherapy.
- **Practical 4:**
- Immunoassays (ELISA) for detecting antibodies.



Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

UG Department of Microbiology
Add-On Certificate Course: Medical Microbiology and
Immunology (Session 2023-24)
Week-wise teaching plan:

Week	Hrs.	Syllabus
Week 1	1	Overview of microbiology and its branches.
	1	Classification of microorganisms.
	1	Pathogenicity and virulence factors
Week 2	1	Overview of diagnostic microbiology
	2	Major bacterial pathogens and their diseases.
Week 3	2	Mechanisms of bacterial infection and pathogenicity.
	1	Antibacterial agents and resistance
Week 4	1	Diagnostic techniques for bacterial infections
	1	Important viral, fungal, and parasitic pathogens.
	1	Disease mechanisms and host interactions.
Week 5	1	Antiviral, antifungal, and antiparasitic therapies.
	2	Diagnostic methods for viral, fungal, and parasitic infections.
Week 6	1	Components and functions of the immune system.
	2	Innate and adaptive immunity.
Week 7	2	Immunopathology
	2	autoimmune diseases
Week 8	2	Vaccination
	2	Immunotherapy
Week 9	1	Microscopy techniques for identifying microorganisms.

	1	Culturing and identifying bacterial pathogens
Week 10	1	PCR and serological tests for viral infections
	1	Immunoassays (ELISA) for detecting antibodies



S. Sarkar
Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

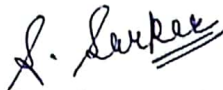
UG Department of Microbiology
Add-On Certificate Course: Medical Microbiology and
Immunology (Session 2023-24)

Time Table

w.e.f. 09/01/2024

Day	Theory
Friday	Sanchari Sarkar (R. noC9) Theory 4.00 PM - 5.00 PM
Saturday	Sanchari Sarkar (R. noC9) practical, 4.00 PM - 5.00 PM
	Sanchari Sarkar (R. noC9) Theory, 4.00 PM - 5.00 PM




Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR

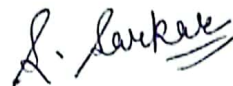
UG Department of Microbiology

EXAMINATION NOTICE

Date: 13/03/2024

All the students enrolled for **Add on Course: Medical Microbiology and Immunology** for the session 2023-24 are informed that Theory and Practical Exam of the course is scheduled on 18/03/2024. All the appearing students are informed to remain present in Microbiology Laboratory at 10:30 – 11:30AM AM for Theory Exam and at 12:30PM – 5:30PM for Practical Exam.




Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

List of the Students: Add on Course- Medical Microbiology and Immunology (Session 2023-2024)

Sr. No.	Name of Student	Signature
1)	AMBULKARISHAPRADNYANAND	Asha A
2)	ANMADWARKHUSHIRAJENDRA	Rushi
3)	BAHADUREVANSHTADHARMAPAL	Venudate
4)	BHAGWATKETKIAVIRAJ	Ketki
5)	BHALKARGAURIABHIJT	Gauri
6)	BINEKARMANSISEVAK	Binekar M.
7)	BISENRIYADELIRAM	Biyabisey
8)	BORKARMANSVIRAVI	Manavi
9)	BORKARNANDINIRAMKRUSHNA	N. Borkar
10)	BORKARSHREYASHADINESH	Shreyasha
11)	BUDDHALWARSIDDHIVYANKATESH	Siddhi
12)	BUDHEVINAYRAJENDRA	Budhe
13)	CHAUHANSHANTANUSINGHSHAIENDR ASINGH	S. Chauhan
14)	CHODHARISHRAVANIRAMESH	Shravani
15)	DAHATSURBHIYOGRAJ	Dahat S
16)	DAHERIYAJAYSIKARAMKISHAN	Jaysika
17)	DAHIKARSARWANIATUL	Sammi D
18)	DASCHETAN SHAKTIPRASAD	Daschetan
19)	DATARKARNAYANPRAKASHRAO	N. Datarwar
20)	DHOTESHRIHTIRAVINDRA	Shrihti
21)	DOYEPRANALISHRIKRUSHNA	Pranali
22)	GARODEGARGISHAILESH	Gargi
23)	GHOLSELEENABHOJRAJ	Leena
24)	GIRIYASHDILIP	Girdi
25)	GODSESHIDDHIMADHAV	Siddhi

26)	GOTMAREPARIKSHITDEEPAK	Jana
27)	GURVEADITIRAMKRUSHNA	Aditi
28)	HADKETEJASVINITIN	Tejashini
29)	JAINSHRUTIRAVIKUMAR	Shruti
30)	JENEKARSHREYANARENDRA	Anu
31)	KADUKARTIKVIVEK	Karrik
32)	KALEVAIDEHIGIRISH	Kalevaide
33)	KAMANESOURABHJAGDISH	Jagan
34)	KAMBLESHTAKSHIVIJAY	Satarkshir
35)	KHADSE ISHAESHWAR	Isra
36)	KHAPARDESOURABHIRAJENDRA	Chaharade
37)	KHEDULETASHUVIPUL	Tasha
38)	KHOBRAGADEBHAVESH SUBHASH	Kobhad
39)	KOHAD PURVASANJAY	Purva
40)	KOLHEYASHASWIPRAVIN	Devedising
41)	KUDKELWARJANHVIRAVI	Purvi
42)	LANDESONALIRAJENDRA	Sonali-
43)	LOHAKARESHRAVNIKAWADU	Ramu
44)	MADAVIMAITHILIPRABHAKAR	Maithil
45)	MAHANTABHILASHACHANDRASHEKHAR	Abhishhe
46)	MANWATKARMAHIPRAMOD	Methi
47)	MASRAMSAMRUDHISUBHASH	Samrudha
48)	MESHARAMSHRIVINNAVIN	Shrivar
49)	NAGBHIDKARASTHASANJAY	Astha
50)	NANDANWARSANIYAMURLIDHAR	Sange
51)	NIKOSEVAISHNAVIVASANTA	Nikose
52)	NINAWERAKHISANJAY	Rakhi
53)	NIPANEDARSHIKADINDAYAL	Rinalta



A. Sarkar

Ms. Sanchari Sarkar

UG Department of Microbiology
Add-On Certificate Course: Medical Microbiology and
Immunology (Session 2023-24)

Theory Exam (M.C.Q. Pattern)

1. Which of the following is a Gram-positive bacterium?
 - A) Escherichia coli
 - B) Staphylococcus aureus
 - C) Salmonella typhi
 - D) Neisseria gonorrhoeae

Answer: B
2. What is the primary function of T-helper cells?
 - A) Produce antibodies
 - B) Phagocytose pathogens
 - C) Activate B cells and macrophages
 - D) Suppress the immune response

Answer: C
3. Which pathogen is known for causing tuberculosis?
 - A) Streptococcus pneumoniae
 - B) Mycobacterium tuberculosis
 - C) Clostridium botulinum
 - D) Bacillus anthracis

Answer: B
4. What is the main function of antibodies?
 - A) Lyse bacterial cells
 - B) Neutralize toxins
 - C) Phagocytose pathogens
 - D) Inhibit viral replication

Answer: B
5. Which of the following is an example of an opportunistic infection?
 - A) HIV
 - B) Influenza
 - C) Candida albicans
 - D) Measles

Answer: C
6. What is the role of macrophages in the immune system?
 - A) Produce antibodies
 - B) Present antigens to T cells
 - C) Produce histamine
 - D) Inhibit viral replication

Answer: B
7. Which viral family does the influenza virus belong to?
 - A) Retroviridae
 - B) Flaviviridae
 - C) Orthomyxoviridae

- D) Coronaviridae

Answer: C

8. Which of the following is a fungal pathogen?

- A) Escherichia coli
- B) Plasmodium falciparum
- C) Candida albicans
- D) Staphylococcus aureus

Answer: C

9. Which cell type is primarily responsible for the production of antibodies?

- A) Macrophages
- B) T-helper cells
- C) B cells
- D) Natural killer cells

Answer: C

10. What does ELISA stand for?

- A) Enzyme-Linked Immunosorbent Assay
- B) Enzyme-Linked Inhibitory Assay
- C) Electrophoretic Immunosorbent Assay
- D) Electrophoretic Inhibitory Assay

Answer: A

11. Which of the following is a characteristic of innate immunity?

- A) Memory response
- B) Specificity for particular antigens
- C) Immediate response
- D) Production of antibodies

Answer: C

12. Which bacterium is associated with peptic ulcers?

- A) Escherichia coli
- B) Helicobacter pylori
- C) Streptococcus pyogenes
- D) Staphylococcus aureus

Answer: B

13. Which type of immunity involves the activation of B cells?

- A) Cell-mediated immunity
- B) Innate immunity
- C) Humoral immunity
- D) Autoimmunity

Answer: C

14. What is the function of cytokines in the immune response?

- A) Directly kill pathogens
- B) Serve as signaling molecules
- C) Phagocytose pathogens
- D) Produce antibodies

Answer: B

15. Which of the following pathogens causes malaria?

- A) Plasmodium spp.
- B) Trypanosoma spp.
- C) Leishmania spp.

- D) Toxoplasma gondii

Answer: A

16. Which immunoglobulin is most abundant in serum?

- A) IgA
- B) IgG
- C) IgM
- D) IgE

Answer: B

17. Which diagnostic technique is used to detect viral RNA?

- A) ELISA
- B) PCR
- C) Western blot
- D) Flow cytometry

Answer: B

18. What is the main target of the HIV virus?

- A) B cells
- B) T-helper cells
- C) Macrophages
- D) Epithelial cells

Answer: B

19. Which of the following diseases is caused by a protozoan?

- A) Tuberculosis
- B) Malaria
- C) Influenza
- D) Cholera

Answer: B

20. What does the presence of IgM antibodies typically indicate?

- A) Chronic infection
- B) Early stage of infection
- C) Allergic reaction
- D) Autoimmune disease

Answer: B

21. Which pathogen is known to cause Lyme disease?

- A) Borrelia burgdorferi
- B) Treponema pallidum
- C) Neisseria meningitidis
- D) Mycobacterium leprae

Answer: A

22. What is the primary role of natural killer (NK) cells?

- A) Produce antibodies
- B) Kill virally infected cells
- C) Phagocytose bacteria
- D) Present antigens to T cells

Answer: B

23. Which of the following is a zoonotic disease?

- A) Influenza
- B) Rabies
- C) Tuberculosis

- D) Hepatitis B

Answer: B

24. Which assay is commonly used to measure the concentration of specific antibodies in a sample?

- A) PCR
- B) ELISA
- C) Western blot
- D) Flow cytometry

Answer: B

25. Which type of immunity is provided by vaccination?

- A) Passive immunity
- B) Innate immunity
- C) Active immunity
- D) Natural immunity

Answer: C



Ms. Sanchari Sarkar
Course- Coordinator
Add on Course

UG Department of Microbiology
Add-On Certificate Course: Medical Microbiology and
Immunology (Session 2023-24)

Practical Exam Question Paper:

Subject : Medical Microbiology and Immunology

Center : S.S.E.S.A's Science College, Nagpur

Time : 5 hrs per day

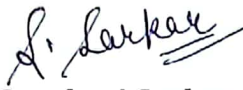
Dates :18/03/2024

Max. Marks: 40

Q.1. Culturing and identifying bacterial pathogens	10
Q.2. Immunological assay for detecting antibodies	10
Q.3. Viva-Voce	10
Q.4. Practical Record	10

Total Marks 40




Ms. Sanchari Sarkar
Course- Coordinator
Add on Course



Shri Shivaji Education Society, Amravati's
SCIENCE COLLEGE
 Congress Nagar, Nagpur-12 (M.S.), India



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 Mentor College under 'PARAMARSHI Scheme', UGC, New Delhi

U.G. DEPARTMENT OF MICROBIOLOGY

Add-on Course

Course Exam Name: Medical Microbiology and Immunology

Name of Student:

Tisha Ambulkar

Roll No.:

Session: 2023-24

Test Date:

18/03/24

Max. Marks: 50

S. Raut

Invigilator Signature

Obtained Marks:

50

INSTRUCTIONS FOR FILLING THE SHEET

- 1 This sheet should not be folded or crushed
- 2 Use only blue/black ball point pen to fill the circles
- 3 Use of pencil is strictly prohibited.
- 4 Circles should be darkened completely and properly
- 5 Cutting and erasing on this sheet is not allowed
- 6 Do not use any stray marks on the sheet
- 7 Do not use marker or white fluid to hide the mark

WRONG METHODS

CORRECT METHOD



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9	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	19	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	29	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	39	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	49	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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UG Department of Microbiology
Mark List: Add on Course- Medical Microbiology and Immunology
(Session 2023-2024)

Sr. No.	Name of Student	Marks obtained out of 50 (Theory)	Marks obtained out of 40 (Practical)	Marks obtained out of 10 (Internal)	Total Marks 100	Grade
1)	AMBULKARISHAPRADNY ANAND	50	38	10	98	O
2)	ANMADWARKHUSHIRAJE NDRA	48	36	10	94	O
3)	BAHADUREVANSHTADH ARMAPAL	50	38	10	98	O
4)	BHAGWATKETKIAVIRAJ	48	36	10	94	O
5)	BHALKARGAURIABHIJIT	42	35	10	87	A+
6)	BINEKARMANSISEVAK	42	34	10	86	A+
7)	BISENRIYADELIRAM	48	36	10	94	O
8)	BORKARMANSVIRAVI	42	35	10	87	A+
9)	BORKARNANDINIRAMKR USHNA	50	38	10	98	O
10)	BORKARSHREYASHADIN ESH	50	34	10	94	O
11)	BUDDHALWARSIDDHIVY ANKATESH	48	35	10	93	O
12)	BUDHEVINAYRAJENDRA	42	34	10	86	A+
13)	CHAUHANSHANTANUSIN GHSHAIENDRASINGH	48	36	10	94	O
14)	CHOUDHARISHRAVANIRA MESH	50	34	10	94	O

15)	DAHATSURBHIYOGRAJ	48	35	10	93	0
16)	DAHERIJAYSIKARAMKISHAN	42	34	10	86	A+
17)	DAHIKARSARWANIATUL	48	36	10	94	0
18)	DASCHETAN SHAKTIPRASAD	42	35	10	87	A+
19)	DATARKARNAYANPRAKASHRAO	50	38	10	98	0
20)	DHOTESHRISHTIRAVINDRA	50	34	10	94	0
21)	DOYEPRANALISHRIKRUSHNA	42	34	10	86	A+
22)	GARODEGARGISHAILESH	50	38	10	98	0
23)	GHOLSELEENABHOJRAJ	48	36	10	94	0
24)	GIRIYASHDILIP	50	38	10	98	0
25)	GODSESIDDHIMADHAV	48	36	10	94	0
26)	GOTMAREPARIKSHITDEEPAK	42	35	10	87	A+
27)	GURVEADITIRAMKRUSHNA	41	35	10	86	A+
28)	HADKETEJASVINITIN	50	38	10	98	0
29)	JAINSHRUTIRAVIKUMAR	50	34	10	94	0
30)	JENEKARSHREYANARENDRA	42	35	10	87	A+
31)	KADUKARTIKVIVEK	50	38	10	98	0

32)	KALEVAIDEHIGIRISH	50	34	10	94	0
33)	KAMANESAURABHJAGDISH	42	34	10	86	A+
34)	KAMBLESHTAKSHIVIJAY	50	38	10	98	0
35)	KHADSE ISHAESHWAR	48	36	10	94	0
36)	KHAPARDESOURABHIRAJENDRA	50	38	10	98	0
37)	KHEDULETASHUVIPUL	48	36	10	94	0
38)	KHOBRAGADEBHAVESH SUBHASH	42	35	10	87	A+
39)	KOHAD PURVASANJAY	50	34	10	94	0
40)	KOLHEYASHASWIPRAVIN	48	35	10	93	0
41)	KUDKELWARJANH VIRAVI	42	34	10	86	A+
42)	LANDESONALIRAJENDRA	48	36	10	94	0
43)	LOHAKARESHRAVNIKAWADU	42	34	10	86	A+
44)	MADAVIMAITHILIPRABHAKAR	42	35	10	87	A+
45)	MAHANTABHILASHACHANDRASHEKHAR	50	38	10	98	0
46)	MANWATKARMAHIPRAMOD	50	34	10	94	0
47)	MASRAMSAMRUDHISUBHASH	50	38	10	98	0
48)	MESHGRAMSHRIVINNAVIN	48	36	10	94	0

49)	NAGBHIDKARASTHASANJAY	50	38	10	98	0
50)	NANDANWARSANIYAMU RLIDHAR	48	36	10	94	0
51)	NIKOSEVAISHNAVIVASANTA	42	35	10	87	A+
52)	NINAWERAKHISANJAY	50	34	10	94	0
53)	NIPANEDARSHIKADINDAYAL	48	35	10	93	0



S. Sarkar
Ms. Sanchari Sarkar
Course- Coordinator
Add on Course



Shri Shivaji Education Society Amravati's
**SCIENCE COLLEGE, CONGRESS NAGAR,
NAGPUR**



Accredited with CGPA of 3.51 at 'A+' Grade
A College with Potential for Excellence

CERTIFICATE

Mr./Ku. Isha Ambulkar is awarded with certificate on successful completion of the course entitled,
Certificate course in "Medical Microbiology and Immunology"

Session 2023-24 under Add-on course conducted for 30 hours from 09/01/2024 to 11/03/2024 by
Department of Microbiology, SSES's, Science College, congress Nagar, Nagpur 440012.

He/She has passed the Examination with 'O' Grade.

Dr. Pranita Gulhane

Coordinator, Department of Microbiology



Prof. M. P. Dhore

Principal, Science College, Nagpur

UG Department of Microbiology
Session 2023-24
Add-On Courses: Medical Microbiology and Immunology
Feedback form

Que.1. How Would You Rate the Overall Quality of The Add on Course- Medical Microbiology and Immunology ?

- A. Excellent
- B. Good
- C. Average

Que.2. How well did the Add on course - Medical Microbiology and Immunology?

- A. Exceeded expectation
- B. Met expectations
- C. Below expectations

Que. 3. How effective were the course instructor in delivering the Add on course- Medical Microbiology and Immunology?

- A. Very effective
- B. Effective
- C. Ineffective

Que.4. How likely are you to recommend the Add on course- Medical Microbiology and Immunology?

- A. Very likely
- B. Likely
- C. Unlikely

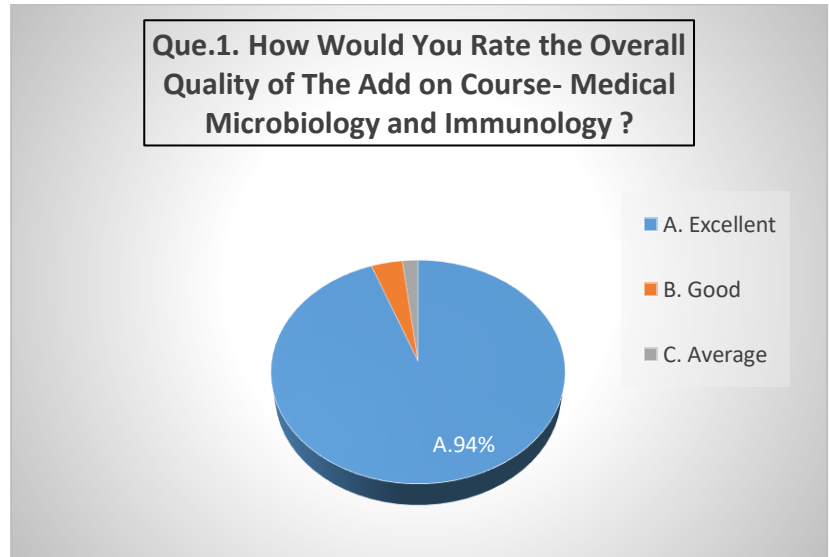
Que. 5. How satisfied are you with the practical sessions of the Add on course- Medical Microbiology and Immunology?

- A. Very satisfied
- B. Satisfied
- C. Dissatisfied.

UG Department of Microbiology
Session 2023-24
Add-On Courses: Medical Microbiology and Immunology
Feedback Responses:

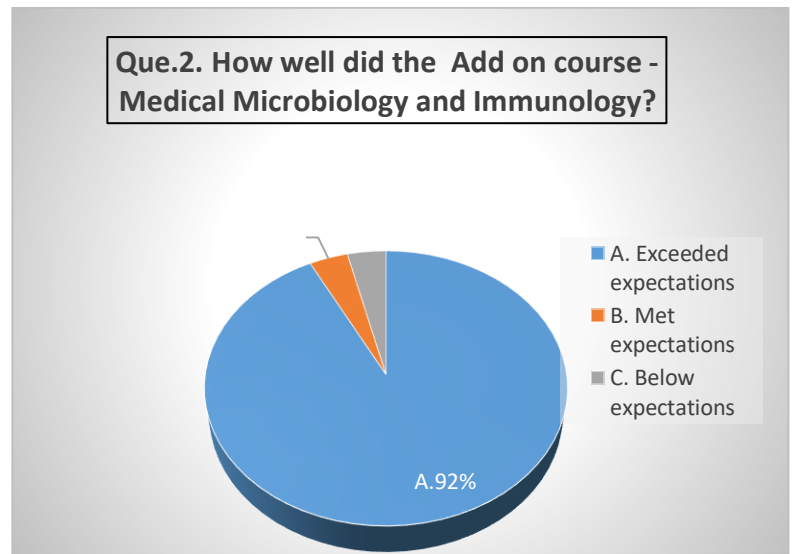
Que.1. How Would You Rate the Overall Quality of The Add on Course- Medical Microbiology and Immunology ?

Rating	No. of Students	Percentage
Excellent	50	94%
Good	2	4%
Average	1	2%
Total	53	100%



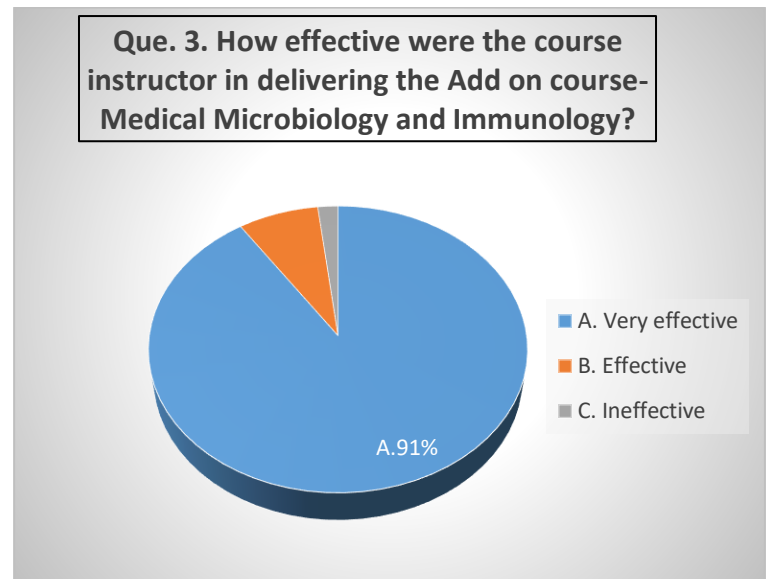
Que.2. How well did the Add on course - Medical Microbiology and Immunology?

Rating	No. of Students	Percentage
Exceeded expectations	49	92%
Met Expectations	2	4%
Below expectations	2	4%
Total	53	100%



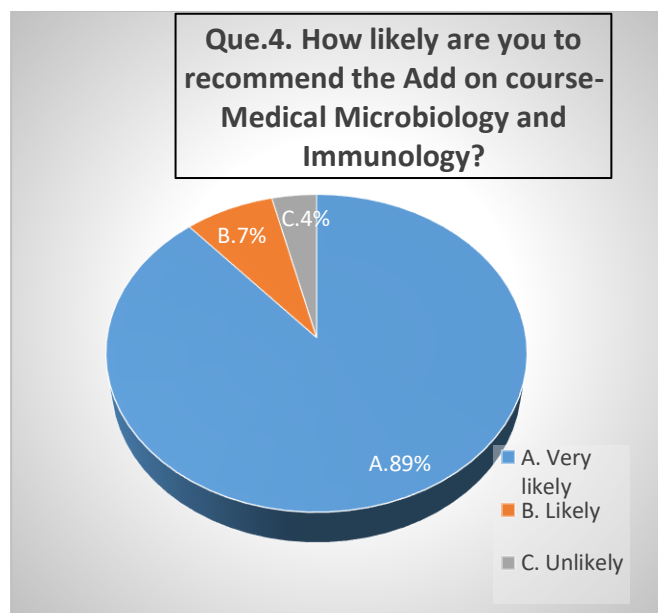
Que. 3. How effective were the course instructor in delivering the Add on course- Medical Microbiology and Immunology?

Rating	No. of Students	Percentage
Very effective	48	91 %
Effective	4	7%
Ineffective	1	2%
Total	53	100%



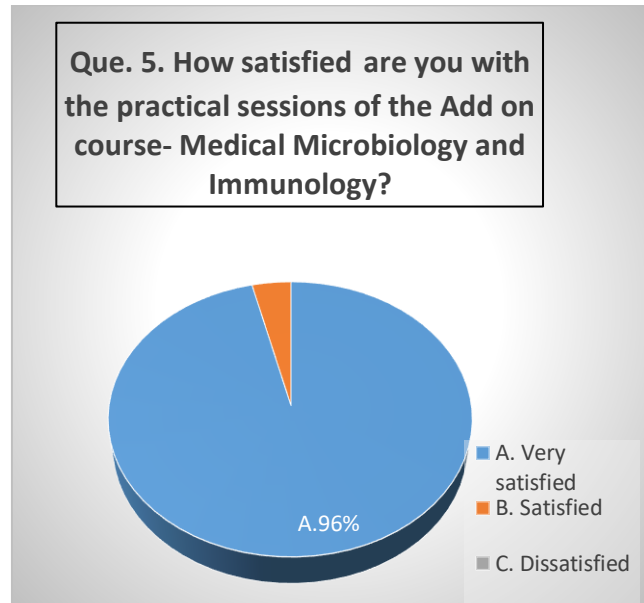
Que.4. How likely are you to recommend the Add on course- Medical Microbiology and Immunology?

Rating	No. of Students	Percentage
Very likely	47	89%
Likely	4	7%
Unlikely	2	4%
Total	53	100%



Que. 5. How satisfied are you with the practical sessions of the Add on course- Medical Microbiology and Immunology?

Rating	No. of Students	Percentage
Very Satisfied	51	96%
Satisfied	2	4%
Dissatisfied	0	0%
Total	53	100%



A. Sanchari

Ms. Sanchari Sarkar
Course- Coordinator
Add on Course



Dr. Amitabh Halder

Dr. Amitabh Halder
IQAC Coordinator
Internal Quality Assurance Cell
(IQAC)
S. S. E. S. A. Science College
Congress Nagar, Nagpur.

Prof. Mahendra Dhore

Prof. Mahendra Dhore
Principal
Principal
S. S. E. S. Amravati's
Science College, Nagpur.