

# Competency-Based Practical Manual of Medical Microbiology

is designed as per CBME Guidelines | Competency Based Undergraduate Curriculum for the Indian Medical Graduate for phase II MBBS students. It is designed specifically to cater to the requirements of undergraduate medical students. The *Manual* provides information about clinical as well as practical microbiology aspects.

#### Salient features:

- Simple and student-friendly text.
- Precise language and point-wise presentation for easy learning and quick recapitulation of facts during examination.
- More clinical correlation has been incorporated.
- The recording of the details of assessment—based on the Kirkpatrick 4-level model of evaluation along with checklist for assessment of certification skill.
- Checklists for certifiable skills—OSPE station (samples)
- Separate empty space provided for reflection/notes at the end of the topic
- Separate section of AETCOM

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Competency-Based  
Practical Manual of  
Medical Microbiology

Singh



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As per the latest CBME Guidelines |  
Competency Based Undergraduate Curriculum for the Indian Medical Graduate



**Saumya Singh**



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Competency Based Undergraduate Curriculum for the Indian Medical Graduate

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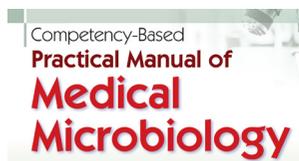
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## *Certificate*

*It is to certify that Ms/Mr \_\_\_\_\_  
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all the exercises mentioned in this record book and his/her progress is  
satisfactory.*

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*Place: \_\_\_\_\_*

*Professor and Head  
Department of Microbiology  
\_\_\_\_\_ Medical College*

# Instructions to Students

1. Be punctual and maintain time specified for each exercise/activity.
2. Eating or drinking in the lab at anytime is to be strictly avoided
3. Report all accidents, injuries, and breakage of glass or equipment to in charge immediately.
4. Do not taste or smell chemicals.
5. Do not enter lab without lab coat.
6. Learn how to handle the laboratory materials and equipment safely.
7. Follow all instructions given by your teacher.
8. Leave your workstation clean and in good order after your work
9. Long hair must be tied back.
10. Pay close attention to any cautions described in the laboratory exercises
11. Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables
12. Come prepared with prior reading on the assigned experiments before you start to work.
13. Do not leave your assigned laboratory station without permission of the teacher.

# Preface

Competency based medical education (CBME) is a relatively a novel concept in India introduced in the academic year 2019-20. The NMC has suggested competency based learning implementation in all medical colleges with goal of designing and implementing such curriculum that would focus on the observable and desired ability in real time situations. This Practical Manual is prepared as per CBME Guidelines (adopted by National Medical Commission) for implementation of competency based curriculum for phase II MBBS students. This manual provides information about clinical aspects as well as practical microbiology aspects. This manual will serve as a stimulus to encourage self-directed learning among undergraduate students. The comprehensive description of the topic is very simple and easy language for better understanding.

Concerted effort has been made to cover the entire course for Practicals in Microbiology. This manual contains all images, tables, questionnaires related to the topics, various clinical case scenarios essential for an Indian medical graduate formative training.

This manual's highlights are:

1. The recording of the details of assessment—based on the Kirkpatrick's 4-level model of evaluation along with checklist for assessment of certification skill.
2. Checklists for certifiable skills—OSPE station (samples)
3. AETCOM
4. Separate empty space provided for reflection/notes at the end of the topic.

I feel that this style of presentation makes it easier for students to apply their knowledge in better manner and write the practical notes. In this era of new developments and rapid advances, special attention has been given to provide a contemporary and updated exposition of microbiology.

I have tried my best by putting together the fruit of all my experience into this book and sincerely hope that it meets the requirements of students and teachers. However, there is always scope for improvement. I would welcome your constructive suggestions to make this book better in subsequent editions.

**Saumya Singh**

# Acknowledgments

At the onset, I would like to thank the Almighty for his blessings that enabled me to complete this manual.

I would also like to give special thanks to my husband (Aditya), my kids (Rishaan, Prisha), my parents, family members and my dear friends for their constant support and understanding.

Finally I acknowledge the pleasure of working with the entire publishing team CBS Publishers & Distributors, New Delhi.

**Saumya Singh**

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