

## Interactive Laboratory Microbiology 2024 Q&A



**Q: Does *Interactive Laboratory Microbiology (ILM)* present the complete laboratory microbiology curriculum?**

A: Yes. *ILM* includes 10 *Subdisciplines* with 97 Studies: **I Pure Culture Techniques (7)**, **II Staining Techniques (11)**, **III Microscopy (9)**, **IV Eukaryote Microbes (7)**, **IV Physiology (8)**, **VI Biochemistry (11)**, **VIII Genetics (7)**, **VIII Ecology (7)**, **IX Food & Water Microbiology (5)**, & **X Clinical Microbiology (25)**:  
<https://www.interactivelabmicro.com/ilm-subdisciplines>



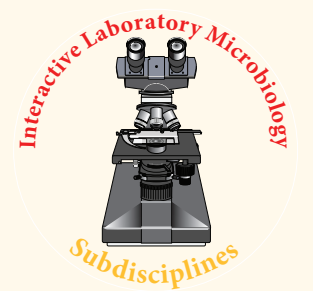
**Q: Is *Interactive Laboratory Microbiology (ILM)* designed for Science or Health Science majors?**

A: Both: *ILM* is available in *Basic & Applied Sciences* & *Health Sciences* editions. However, *ILM Subdisciplines* allows Instructors to choose the most appropriate I-X Sections for their particular course—  
<https://www.interactivelabmicro.com/sites/default/files/TOC/ILM-TOC-1.pdf>  
<https://www.interactivelabmicro.com/ilm-subdisciplines>



**Q: Is *Interactive Laboratory Microbiology (ILM)* designed for introductory or more advanced students?**

A: Both. *ILM* assumes no prior knowledge of microbiology but also goes beyond regular introductory laboratory microbiology. For example, *ILM* includes 2 introductory Studies— **III The Compound Microscope** & **IV Brightfield Microscopy** — to show how brightfield microscopy observes stained & living microbes. More advanced *ILM* studies include darkfield, interference, & phase-contrast microscopy. Check out **III Microscopy** in the **Table of Contents (TOC)**—  
<https://www.interactivelabmicro.com/sites/default/files/TOC/ILM-TOC-4.pdf>.



**Q: Can *Interactive Laboratory Microbiology (ILM)* be used to demonstrate microbiology techniques & observations in non-lab microbiology classes?**

A: Definitely yes. *ILM* includes *techniques animations* and *techniques videos* to demonstrate ~350 microbiology procedures. *ILM* also includes ~1800 *images of microbes* & ~65 videos of *microbe motility* for students to observe & better understand the microbes of microbiology. Check out (7) Microbiology Procedures on the WELCOME page: <https://www.interactivelabmicro.com/welcome>.



**Q: How does *Interactive Laboratory Microbiology (ILM)* compare to regular printed introductory laboratory manuals?**

A: *ILM* has a unique role in teaching undergraduate laboratory microbiology. *ILM* is primarily a *virtual* presentation of introductory and intermediate laboratory microbiology. The presentation includes thousands of illustrations, & hundreds of techniques animations & videos to show new laboratory instructors & students how to practice laboratory microbiology. *ILM* incorporates a literal encyclopedia of images of microbes & videos of microbe motility for students to observe & interpret. These *ILM* images & videos were collected over decades and cannot be compared to what can be accomplished in an individual lab session. Check out the video presentations: (7) Microbiology Procedures, (8) Images of Microbes & (9) Motility of Microbes on the Welcome page—  
<https://www.interactivelabmicro.com/welcome>.



*ILM* can be used alone or in conjunction with any printed manual. Indeed, *ILM* includes its own digital & printable manual—  
<https://www.interactivelabmicro.com/ilm-lab-manuals>.



**Q: Does *ILM* explain Risk Groups & Biosafety Levels?**

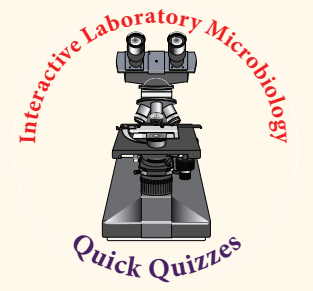
A: Yes. *Risk Groups* & *Biosafety Levels* are the subjects of 1 Microbiology Safety in **I Pure Culture Techniques** & 1 Biosafety in **X Clinical Microbiology**. Download a Trial Instructor Subscription to review these Studies—  
<https://www.interactivelabmicro.com/instructor-trial>.

Also, *ILM* provided a detailed discussion of *Risk Groups* & *Biosafety Levels* at the ASMCUE 2022 explaining how to present ecology & clinical microbiology when the isolation of microbes from the environment is not permitted in BSL1—  
<https://www.interactivelabmicro.com/ilm-at-asmcuc>.



**Q: Does *Interactive Laboratory Microbiology (ILM)* provide detailed technique-by-technique instructions for Best Practice in Biosafety Level 1 (BSL1) & Biosafety Level 2 (BSL2)?**

A: Yes, *ILM* includes ~575 *Best Practice* animations. Each of the ~350 microbiology procedures identifies *Best Practices* for both *BSL1* & *BSL2*. *ILM* suggests which Risk Group 2 microbes can be substituted with Risk Group 1 microbes in BSL1. Check out the *Best Practice* presentations: (3), (4), (5) *Best Practice I, II, III* on the WELCOME page—<https://www.interactivelabmicro.com/welcome>.



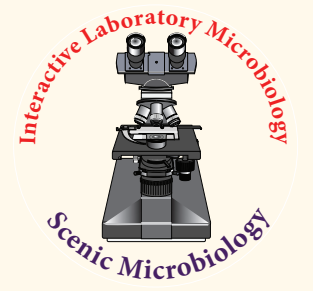
**Q: What are *ILM* Quick Quizzes & *ILM* Best Practice Quick Quizzes?**

A: *ILM* includes 100 *Quick Quizzes* (1,000 questions). Each *ILM* Study includes at least one *Quick Quiz* to allow students to review their understanding of laboratory techniques, observations, & understanding required by the Study. The *Quick Quizzes* are self-correcting: an incorrect answer returns the student to the page & concept needing further review. *ILM* also includes 84 *Best Practice Quick Quizzes* (840 questions) to help students consolidate their understanding of *Best Practice* for BSL1 & BSL2. Check out (11) *ILM Quick Quizzes* on the WELCOME page—<https://www.interactivelabmicro.com/welcome>.



**Q: Can virtual *Interactive Laboratory Microbiology (ILM)* replace regular hands-on labs?**

A: Not quite. There are many skills in microbiology that are best taught hands-on. These include streaking plates & focusing a microscope. However, *ILM* provides all the necessary background to prepare students for their own laboratory experience. *ILM* makes better use of lab times, and can even reduce the number of required labs, or provide time for further studies.



**Q: Explain the differences between Question Bank & Scenic Microbiology.**

A: *ILM Question Bank* provides additional laboratory images & videos of microbes for students to compare with their own observations. These images are often not possible in undergraduate laboratories. For example, *ILM* includes observations of Risk Group 1, 2 & 3 microbes. *ILM Scenic Microbiology* provides a broader approach & presents historical & contemporary microbiology from around the world. Check out (12), (13) *Question Bank I, II* & (14), (15) *Scenic Microbiology I, II* on the WELCOME page—<https://www.interactivelabmicro.com/welcome>.

**Q: Briefly summarize how *Interactive Laboratory Microbiology (ILM)* provides an advantage for both instructors & students.**

A: *ILM* was designed originally for new laboratory instructors to show them how to do laboratory microbiology in BSL1 & BSL2 laboratories with minimal supervision. The purpose of *ILM* is to relieve the pressure on the senior laboratory microbiology instructor. Similarly, *ILM* can better prepare students for their own laboratory microbiology. *ILM* provides both new instructors & students with a means to integrate their understanding of laboratory microbiology with further observations of Risk Group 2 & 3 microbes, often not possible in undergraduate laboratories. *ILM* also integrates historical and contemporary perspectives into the laboratory microbiology curriculum.