



MEDICAL MICROBIOLOGY

w WHAT IS MEDICAL MICROBIOLOGY?

w WHO STUDIES MEDICAL MICRO?

w WHY DO WE STUDY IT?

w WHERE DO WE STUDY IT?

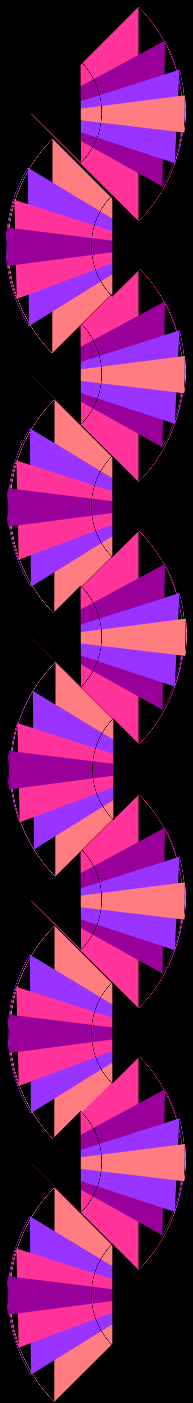
w WHAT KNOWLEDGE WILL A STUDENT
GAIN TAKING THIS COURSE?



MEDICAL MICROBIOLOGY

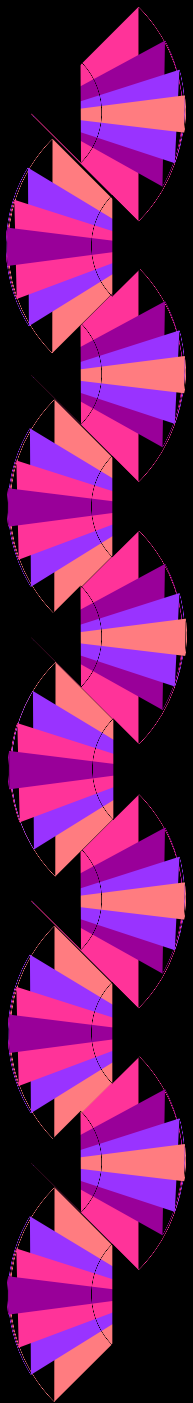
Medical Microbiology is the study of microorganisms:

- Bacteria
- Fungus
- Parasites
- Viruses
- Most can only be seen with the microscope!



MEDICAL MICROBIOLOGY

- w Medical Microbiology studies are usually performed on human blood and body fluids.
- w Medical Laboratory Technicians and Medical Laboratory Technologists perform the studies.
- w Education level: 2 yr. AAS or 4 yr BS



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- w Microorganisms can cause disease in humans.
- w Microbiologists determine the type of microorganism causing the disease and find a drug, usually an antibiotic, to inhibit the microorganism.
- w Microbiologists continue to study the microorganisms through research to determine new antibiotics.

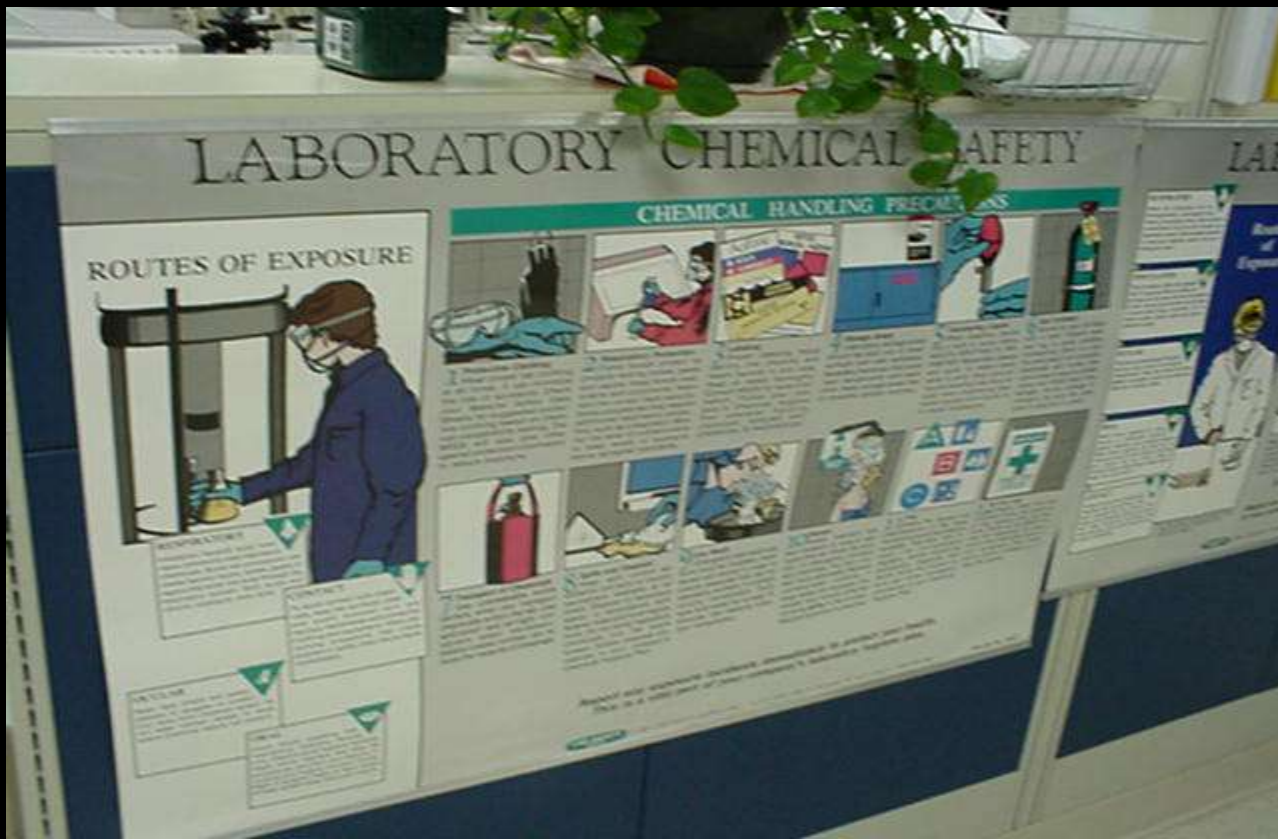


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w Microorganisms are studied in clinical hospital laboratories, reference laboratories, and research facilities.

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w All laboratories post signs regarding safety.



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w Safety hoods are used to avoid splashing and inhaling possible pathogens.



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w A monitored refrigeration unit is essential for accurate results in microbiology.



A photograph of a laboratory kit for the detection of HIV-1 and HIV-2 antibodies. The kit includes a white plastic tray with eight sample wells, a clear plastic rack holding eight test tubes, and a clear plastic rack holding eight test strips. The test strips are labeled 'HIV-1/2' and 'HIV-1/2'.

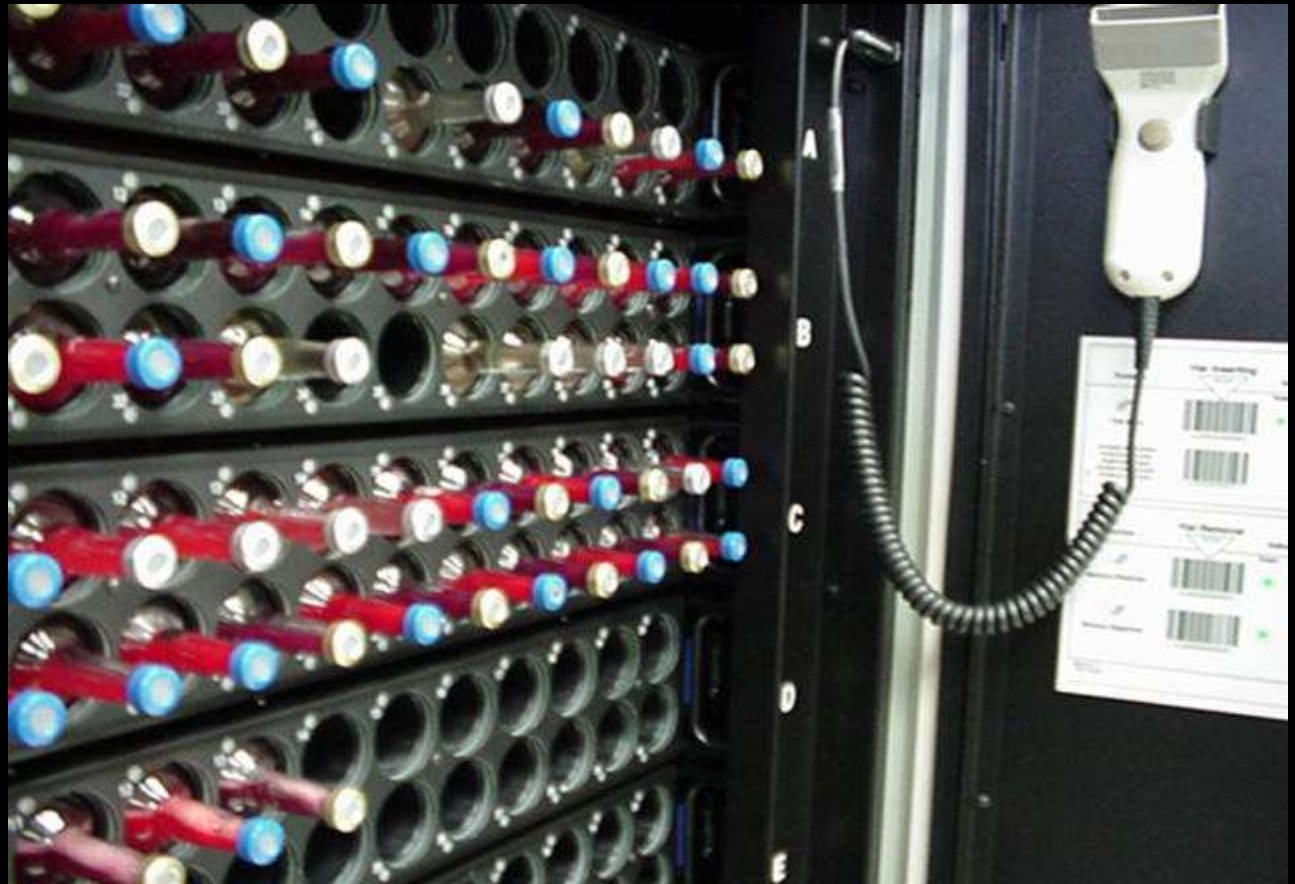
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w A hospital microbiology laboratory



MEDICAL MICROBIOLOGY

w Blood cultures are incubated and monitored electronically for bacterial and fungus growth.



MEDICAL MICROBIOLOGY

w High tech instruments are used to aid in the identification of microorganisms.



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w Teamwork is essential in all types of laboratories, including the school laboratory.



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w What is growing on this agar plate?





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At the end of this course, you will gain knowledge in the following:

- Normal flora of the human body
- Microbiological disease states related to the human body
- Media/Agar used to grow microorganisms
- Biochemical reactions of microorganisms
- Identification of microorganisms!