

SUFFOLK COUNTY COMMUNITY COLLEGE

Biology Department

Course Outline

Instructors: C. Pugliese, V. Schirone , Schmidt, M
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Course Title: General Microbiology
Catalog Number: BIO 244
Semester: Fall, 2008

Textbook: Microbiology by G.J. Tortora, B.R. Funke & C.L. Case;
Benjamin Cummings Publishing Co., Calif.; 2007, 9th Edition

Laboratory Manual: Microbiology in Practice by Lois Beishir, Harper & Row
Publishing Co.; New York, 1996, 6th Edition

Optional: Microbiology; A Photographic Atlas for the Laboratory;
Benjamin Cummings, New York, 2001

Objectives: By the end of the semester the successful student will have:

1. acquired knowledge of prokaryotic anatomy and physiology, and its similarities and differences when compared to that of eukaryotic organisms.
2. gained a greater understanding of intermediate metabolism
3. gained an understanding of the basics of microbial genetics
4. acquired knowledge pertaining to the relationship of microorganisms to health and disease
5. acquired an understanding of the basic mechanisms of physical and chemical control
6. attained a basic familiarity with the main groups of bacteria and other types of microorganisms.
7. gained an understanding of basic laboratory techniques for observation, isolation, and identification of microorganisms.

Student requirements and evaluation:

Lecture examinations:	1/3
Laboratory – Unknowns And Laboratory Practicals	1/3 (see Lab Schedule for dates)
Final examination	1/3

Attendance Policy:

- A. Lecture: All students are expected to attend every session. Students are responsible for all that transpires in Lecture whether they are in attendance or not. The College defines excessive absence or lateness as more than the equivalent of one week of class meetings during the semester. Excessive absence or lateness can lead to failure in a course or removal from the class roster.

- B. Laboratory: Student **MUST** attend **ALL** laboratory sessions. A student who misses a session must contact the laboratory instructor the day of the missed session (by Email or phone) to arrange for a make up. Failure to comply with this policy will result in being dropped from the course. (Students who miss 2 laboratory sessions and do not make them up will be dropped from the course).

- Miscellaneous:
- A. Students must supply protective gloves for laboratory procedures.

 - B. Beepers and cell phones **MUST** be turned off/set on Vibrate during class lecture and lab. **ALL BEEPERS And CELL PHONES MUST BE TURNED COMPLETELY OFF DURING EXAMS!!!!!!**

Lecture schedule

Topic

Introduction to Microbiology

Taxonomy of Microorganisms

Taxonomy of Microorganisms
(Parasitic Helminths)

Taxonomy of Microorganisms
(Parasitic Protozoans)

Microscope and Bacterial Anatomy

Cultivation and Growth of Bacteria

Macromolecules and Enzymes
(Chapter 2 should be a review
for you - go through it thoroughly)

Bacterial metabolism

Genetic variation in Bacteria
(Review molecular structure/basic composition of
DNA and RNA molecules)

Viruses

Control of Microorganisms

Microorganisms and Disease:
Resistance and Immunity

Final Exam