
Biology Department, College of Science & Mathematics, Valdosta State University
FALL 2021---COURSE SYLLABUS*#

BIOL 3100, Sections A & B. Microbiology (CRN 81996 & 81997) - 4 credit hours

BIOL 5100, Sections A & B Microbiology (CRN xxxxx & xxxxx) – 4 credit hours

Class: TR 8:00-9:15 am, 2022 Bailey Science Center

Laboratory: TR 3100/5100 Section A 10:00-11:25 am, 2068 Bailey Science Center

TR 3100/5100 Section B 2:00-3:25 pm, 2068 Bailey Science Center

Instructor: Dr. Jenifer Turco

Email: jturco@valdosta.edu

Telephone: 229-249-4845

Office: 2091 Bailey Science Center

Office Hours: Mon., 12:30 – 2:45 pm; Tues., 4:15 – 4:45 pm; Thurs., 4:15 – 5:30 pm; or by appointment.

Important-exception: Due to other responsibilities, the instructor may not be available for office hours on Thursday, August 19.

Course Description: BIOL 3100 Microbiology 3-3-4 (4 credit hours) Prerequisites: BIOL 1107K, BIOL 1108K, BIOL 3200, CHEM 1211/CHEM 1211L, CHEM 1212/1212L. Recommended: CHEM 3402. **BIOL 5100 Microbiology 3-3-4 (4 credit hours)** Prerequisite: Admission into the graduate program or permission of the instructor. Survey of microbiology covering eubacteria, archaebacteria, protozoa, fungi, algae, and viruses. Includes fundamental techniques, microbial physiology and genetics, biotechnology, medical applications, and applied microbiology. Two 1.5-hour laboratory periods per week.

Required Textbook:

BROCK BIOLOGY OF MICROORGANISMS, Fifteenth Edition

by Michael T. Madigan, Kelly S. Bender, Daniel H. Buckley, W. Matthew Sattley, and David A. Stahl. Pearson Education, Inc. 2018. PLEASE see below for important details:

The required textbook (see above) is being offered to students as an etextbook via the DAY ONE program developed by Pearson Education and the Bookstore. Students may also opt-out of the DAY ONE program and select one of the following alternate options for the textbook (select one): (1) traditional, hard-cover book (ISBN 9780134261928); (2) unbound loose-leaf book (ISBN: 9780134626109) ; (3) “Mastering Microbiology” with Etext for BrockBiology of Microorganisms (ISBN: 9781323751329). Please note that “Mastering Microbiology” is an online resource that is included with this particular eText. Access to “Mastering Microbiology” is NOT required for the course, although it is included with this option, and students may use it if they wish. For additional information about the textbook options, please see the VSU Bookstore Web site.

Special emphasis: **The textbook is required and assignments will be given from the textbook.**

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Special notes to students:

FACE COVERINGS AND SOCIAL DISTANCING

6. Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU's Access Office or e-mail access@vsu.edu.

USG, VSU or Biology Objective	Course Objective(s)
Core Area A1 Learning Goal	ZG, ZH, ZI
Core Area A2 Learning Goal	G, ZE, ZF
Core Area B Learning Goal	C, D, M, R, U, V, X, Y, Z
Core Area D Learning Goal	all course objectives
VSUA1	ZG, ZH, ZI
USG, VSU or Biology Objective	Course Objective(s) (continued from preceding page)
VSUA2	G, ZF, ZG
VSUB	C, D, M, R, U, V, X, Y, Z
VSUD	all course objectives
B1	ZA, ZB, ZC, ZD, ZE, Z

BIOLOGY 3100/5100. Microbiology – Plans and Class Topics

Topics for remainder of course:

Review (on your own) the following topics that you covered in introductory biology:

Basics of chemistry and biochemistry

DNA structure & replication

Transcription & translation

Introduction to Microbiology

Microorganisms and microbiology

Chap. 1

An overview of microbial life

Chap. 1

Cell structure/function

Chap. 2, 3 (p. 75-77), & 6 (p. 184-186)

Eukaryotic microorganisms

Chap. 13, 18, & Chap. 33

Nutrition, culture, & metabolism of microorganisms

Chap. 3, 14, 15, 16 & 17 (selected topics)

Metabolism of microorganisms (continued)

Chap. 14, 15, 16, & 17 (selected topics)

Microbial systematics

Microbial systematics;

Chap. 13

Strategies for identification of microorganisms (with emphasis on prokaryotes)

Microbial identification & clinical microbiology

Chap. 28 (Fig. 28.4)

Microbial growth

Chap. 5 & 7

Molecular microbiology

Chap. 4; Chap. 12 (p. 333-336)

Regulation

Chap. 6

Viruses

Chap. 8 & 10

Microbial Genetics

Microb

regularly submit your updated journal in BlazeView so your latest version is available for the instructor to view. There are many possibilities for journal entries, and entries do not need to be very long. For example, you could write a paragraph about a bacterium or virus that interests you and what you learned about it using reliable Internet resources. Or you could briefly discuss an interesting article that you found about microorganisms, and provide a link to the article. Or you could write a reaction to some of the information presented in the textbook. Or perhaps, you might have had a question about microorganisms/microbiology, the articles suggested in class, or the class material, and you searched for and found the answer on your own. In this situation, your journal entry could document this work. Another possibility would be to find a news story or newspaper article related to microbiology and write a summary and reaction to the article. If you found errors in the article, you should note them. Or you could find and evaluate an Internet resource that has information about microbiology. Finally, you might locate information about the status of the current pandemic (or another disease outbreak) and react to that information.

ADDITIONAL COMMENTS

1. We will not be covering all of the material in the textbook and lab manual. Please read the pertinent sections of the textbook and lab manual, and make use of the tables and illustrations. Specific assignments on particular topics in these books may be announced in class or lab, or they may be assigned as homework.
2. Attendance and assignments