

# **GRAYSON COLLEGE**

## ***Course Syllabus***

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### **Course Information**

#### **BIOL 2320 Microbiology**

#### **Sections:**

#### **Spring 2017**

Face-to-Face course, Lecture meets 3 hours/week, Testing conducted on campus in the classroom

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### **Professor Contact Information**

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Instructor/Professor:     | Richard Weart                                                                |
| Office Phone:             | 903-463-8667                                                                 |
| Science Department Phone: | 903-463-8797                                                                 |
| e-mail:                   | weartb@grayson.edu                                                           |
| Office Location:          | S105C                                                                        |
| Office Hours:             | MW: 11:30am-1:00pm<br>TR: 12:15pm-1:00pm, 2:15pm-3:00pm<br>F: 10:00am-2:00pm |

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### **Course Pre-requisites, Co-requisites, and/or Other Restrictions**

Co-requisite: BIOL 2120. Students must have passed the reading portion of the THEA (score of at least 230). Pre-requisites: Successful completion with a grade of C or better in BIOL 2301/2101, CHEM 1406 or CHEM 1311/1111 or consent of the Science Chair required. College readiness in reading required. (R)

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### **Course Description**

**BIOL 2320. Microbiology (3-0-3).** Study of the morphology, physiology, and taxonomy of representative groups of pathogenic and nonpathogenic microorganisms. Pure cultures of microorganisms grown on selected media are used in learning laboratory techniques. Includes a brief preview of food microbes, public health, and immunology. An introduction is made to the principles of microbiology dealing with the essential nature of microorganisms, as well as their economic and pathologic relationships to man including microbial control and epidemiology.

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### **Student Learning Outcomes**

Student learning outcomes which will be addressed in laboratory and/or lecture.

1. Students will demonstrate an understanding of factors that lead to microbial antibiotic resistance, as well as techniques for detecting resistance, and assess the effects of such resistance on society.
2. Students will identify examples of harmful as well as beneficial actions of microorganisms, and extrapolate their effects on society.

3. Students will demonstrate critical thinking, problem solving, and decision making while identifying of bacteria in a culture.

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### Required Textbooks

Foundations in Microbiology, 9<sup>th</sup> edition by Kathleen Park Talaro and Barry Chess, McGraw-Hill Publishers, ISBN 978-0073522609

### Textbook Student Site

[http://highered.mcgraw-hill.com/sites/0073375292/student\\_view0/index.html](http://highered.mcgraw-hill.com/sites/0073375292/student_view0/index.html)

### Suggested Course Materials

None

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### Required Assignments & Academic Calendar

**In case of inclement weather, emergency closings, or other unforeseen disruptions to scheduled classes, student must log onto their Canvas accounts for directions on where or how to continue their coursework.**

**Table 1 Course Schedule**

| <b>Topics, Readings, Assignments, Deadlines</b>         |
|---------------------------------------------------------|
| Chapter 1 The Main Themes of Microbiology               |
| Chapter 4 Prokaryotic Cells                             |
| Chapter 5 Eukaryotic Cells                              |
| Chapter 6 Viruses                                       |
| <b>Exam over chapters 1, 4, 5, 6.</b>                   |
| Chapter 7 Microbial Nutrition, Ecology, and Growth      |
| Chapter 8 Microbial Metabolism                          |
| Chapter 9 Microbial Genetics                            |
| <b>Exam over chapters 7, 8, 9.</b>                      |
| Chapter 11 Physical and Chemical Microbial Control      |
| Chapter 12 Drugs, Microbe, Host                         |
| Chapter 13 Microbe-Human Interactions                   |
| Chapter 14 Host Defenses and Innate immunities          |
| Chapter 15 Adaptive, Specific Immunity and Immunization |

| <b>Topics, Readings, Assignments, Deadlines</b>    |
|----------------------------------------------------|
| <b>Exam over chapters 11, 12, 13, 14, 15</b>       |
| Chapter 18 Gram Positive and Gram Negative Cocci   |
| Chapter 19 Gram Positive Bacilli                   |
| Chapter 20 Gram Negative Bacilli                   |
| Chapter 21 Miscellaneous Bacteria                  |
| <b>Exam over chapters 18, 19, 20, 21.</b>          |
| Chapter 22 Fungi                                   |
| Chapter 23 Protozoans                              |
| Chapter 24 DNA Viruses                             |
| Chapter 25 RNA Viruses                             |
| <b>Final exam over chapters 22, 23, 24, and 25</b> |

**Dates and sequence of topics are subject to change. Changes will be announced in class in a timely manner.**

## **Required Assignments & Academic Calendar**

**In case of inclement weather, emergency closings, or other unforeseen disruptions to scheduled classes, student must log onto their Canvas accounts for directions on where or how to continue their coursework.**

### **Important Dates:**

|                                           |                                              |
|-------------------------------------------|----------------------------------------------|
| First day of classes:                     | January 17, 2017                             |
| Last day to add/change courses:           | January 17 <sup>th</sup> to 20 <sup>th</sup> |
| Spring Break NO CLASSES                   | March 13 <sup>th</sup> to 17 <sup>th</sup>   |
| Professional Development Day (no classes) | March 24, 2017                               |
| Application for graduation                | March 31, 2017                               |
| Last day to drop/withdraw from course:    | April 18, 2017                               |
| Lecture Final Exams:                      | May 8 <sup>th</sup> to 11 <sup>th</sup>      |

### **Methods of Evaluation**

Five major examinations (including the final exam) will be given at scheduled times throughout the semester. There will be no make-ups taken after an exam has been returned to the students. Students not taking the exam will receive a grade of "0". Exams may be taken early as scheduled with the instructor for special circumstances. The student may take a comprehensive exam immediately after taking the final exam to replace the "0" from a missed exam. Exams may consist of multiple choice, matching, short answer, fill-in the-blank, true and false and/or

discussion questions. Graded exams will be reviewed in class. After the student examines the test, it will be returned to the instructor.

Special projects may be assigned from time to time. Daily quizzes may be given to enhance the learning process. A student may have the ability to earn up to ten extra credit points during the semester. The extra credit points will be added to the total number of points earned by taking the five exams before dividing by five to derive the course average.

## Grading

Due to the new combined course format lab and lecture will be combined to produce a single grade. The combined grade is calculated by scoring the lab and lecture as described in their individual syllabi. Those grades will then be weighted with the lecture accounting for 60% of the student's final grade and the lab 40%.

Averages will be rounded up or down. For example, an 89.5 will be rounded up to a 90 and 89.4 will be rounded down to an 89.

Letter grades will be assigned as follows:

|      |   |      |   |   |
|------|---|------|---|---|
| 89.5 | - | 100  | = | A |
| 79.5 | - | 89.4 | = | B |
| 69.5 | - | 79.4 | = | C |
| 59.5 | - | 69.4 | = | D |
| 0    | - | 59.5 | = | F |

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## Methods of Instruction

Lectures by the instructor will be the main method of instruction. Group work, class discussions, power point presentations, overhead transparencies, skits, models, etc., may also be incorporated to enhance the learning process.

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## Class Attendance

Academic success is closely associated with regular classroom attendance and course participation. All successful students, whether on campus or online, are expected to be highly self-motivated. All students are required to participate in courses regularly and are obliged to participate in class activities and complete and submit assignments following their professors' instructions. Students taking courses during compressed semester time frames such as mini-semester, summer sessions, and mid-semester should plan to spend significantly more time per week on the course. Responsibility for work missed because of illness or school business is placed upon the student. More than two (2) absences are considered to be excessive. **In accordance with the College's Developmental Education Plan, students withdrawn from their only developmental course may be withdrawn from all academic courses.** In addition, students' eligibility to receive financial aid or live in a College dormitory can be affected by

withdrawal from courses. When administrative withdrawal occurs, any tuition refund would be made in accordance with state regulations.

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## **Student Conduct & Discipline**

### **Classroom Behavior:**

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance and an attitude that seeks to take full advantage of the educational opportunity.

### **Defacing College Property:**

Anyone caught defacing property in the classroom will be responsible for cleaning, repairing or replacing the defaced property. Defacing property includes, but is not limited to, writing, marking or scratching on the tables, tabletops, chairs, cabinets, counter tops, shelving or walls.

### **Cell Phone Policy:**

All cell phones and other electronic devices must be turned off before entering the classroom. Text messaging is not permitted during class. If you have an emergency and need to take a call during class, you must inform the instructor before the beginning of class. Turn your ringer to vibrate, and when your call comes in, pick up all of your belongings and leave the classroom. You may return to class the next time the class meets.

### **Academic Integrity:**

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic Dishonesty, any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the college's policy on plagiarism (see GC Student Handbook for details). Grayson College subscribes to turnitin.com, which allows faculty to search the web and identify plagiarized material.

**The policy of the Science Department:** Any instance of a) plagiarism, b) collusion, c) cheating, or d) falsifying records, will result in a "0" for the assignment. The "0" assigned for cheating cannot be dropped or replaced by another grade when calculating the course average.

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## **TITLE IX**

GC policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status.

Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation.

For more information on Title IX, please contact:

- § Dr. Regina Organ, Title IX Coordinator (903-463-8714)
- § Dr. Dava Washburn, Title IX Coordinator (903-463-8634)
- § Dr. Kim Williams, Title IX Deputy Coordinator- South Campus (903) 415-2506
- § Mr. Mike McBrayer, Title IX Deputy Coordinator (903) 463-8753
- § Website: <http://www.grayson.edu/campus-life/campus-police/title-ix-policies.html>
- § GC Police Department: (903) 463-8777- Main Campus) [\(903\) 415-2501](tel:9034152501) - South Campus)
- § GC Counseling Center: (903) 463-8730
- § For Any On-campus Emergencies: 911

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**Grayson College is not responsible for illness/injury that occurs during the normal course of classroom/lab/clinical experiences.**

**These descriptions and timelines are subject to change at the discretion of the Professor.**

**Grayson College campus-wide student policies may be found in each Canvas course shell under the menu item “Student Services”.**