BIOLOGY 1107: Principles of Biology I FALL 2020

STUDY TIPS

- 1. Take good notes during lecture. Then, as soon as you can after class, sit down and rewrite the notes in a logical outline. Use your book to fill in the gaps and clarify the places where the lecture did not make any sense. It also helps if you write your outline in complete sentences. Pretend we are writing an introductory biology text-book together. I am telling basically what should be in it, you are making it understandable for your peers.
- 2. Form small study groups and study together on a regular basis someplace without TV, stereo or other distractions.
- 3. Read the relevant sections of the textbook--someone spent a lot of time and energy writing the book and you spent a lot of cash buying it. As you read, think about how the material fits in with lecture. Add the material to your lecture outlines.
- 4. Answer the review questions at the ends of the chapters. Make sure you understand why the correct answer to the multiple choice questions is the correct answer and the other answers are not
- 5. If you don't understand something ask questions, either in class or during office hours.

DEPARTMENT OF BIOLOGY EDUCATIONAL OUTCOMES (BEO)

- 1. Develop and test hypotheses, collect and analyze data, and present the results and conclusions in both written and oral format used in peer-reviewed journals and at scientific meetings.
- 2. Describe the evolutionary process responsible for biological diversity, explain the phylogenetic relationships among the other taxa of life, and provide illustrative examples.
- 3. Demonstrate an understanding of the cellular basis of life.
- 4. Relate the structure and function of DNA/RNA to the development of form and function of the organism and to heredity
- 5. Interpret ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities, and ecosystems; and to human impacts on these systems and the environment.

VALDOSTA STATE UNIVERSITY CORE CURRICULUM LEARNING GOALS:

<u>Learning Goal D: Natural Sciences, Mathematics, and Technology</u>. Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical reasoning and concepts to solve problems.

VALDOSTA STATE UNIVERSITY GENERAL EDUCATIONAL OUTCOMES (GEO)

- 1. Students will demonstrate understanding of the society of the United States and its ideals. They will possess the requisite knowledge of the society of the United States, its ideals, and its functions to enable them to become informed and responsible citizens. They will understand the connections between the individual and society and the roles of social institutions. They will understand the structure and operational principles of the United States government and economic system. They will understand United States history and both the historical and present role of the United States in the world.
- 2. <u>Students will demonstrate cross-cultural perspectives and knowledge of other societies</u>. They will possess sufficient knowledge of various aspects of another culture, including the language, social and religious customs, aesthetic expression, geography, and intellectual and political history, to enable them to interact with individuals within that society from an inforPAi1311()-4(cu0reW*nBT/F4 11.04 Tf1

- 3. Students will use computer and information technology when appropriate. They will demonstrate knowledge of computer concepts and terminology. They will possess basic working knowledge of a computer operating system. They will be able to use at least two software tools, such as word processors, spreadsheets, database management systems, or statistical packages. They will be able to find information using computer searching tools.
- 4. Students will express themselves clearly, logically and precisely in writing and in speaking, and they will demonstrate competence in reading and listening. They will display the ability to write coherently in standard English; to speak well; to read, to understand, and to interpret the content of written materials in various disciplines; and to listen effectively and to understand different modes of communication.
- 5. Students will demonstrate knowledge of scientific and mathematical principles and proficiency in laboratory practices. They will understand the basic concepts and principles underlying scientific methodology and be able to collect, analyze, and interpret data. They will learn a body of scientific knowledge and be able to judge the merits of arguments about scientific issues. They will be able to perform basic algebraic manipulations and to use fundamental algebraic concepts to solve word problems and equations. They will be able to use basic knowledge of statistics to interpret and to analyze data. They will be able to evaluate arguments based on quantitative data.
- 6. Students will demonstrate knowledge of diverse cultural heritages in the arts, the humanities, and the social sciences. They will develop understanding of the relationships among the visual and performing arts, literature and languages, and history and the social sciences. Students will be versed in approaches appropriate to the study of those disciplines; they will identify and respond to a variety of aesthetic experiences and engage in critical thinking about diverse issues. They will be able to identify the components of and respond to aesthetic experiences in the visual and performing arts. They will develop knowledge of world literature within its historical and cultural frameworks. They will understand modem issues within a historical context and the role of the individual in various forms of societies and governments.
- 7. Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written and visual materials. They will be skilled in inquiry, logical reasoning, and critical analysis. They will be able to acquire and evaluate relevant information, analyze arguments, synthesize facts and information, and offer logical arguments leading to creative solutions to problems.
- 8. <u>Students will demonstrate knowledge of principles of ethics and their employment in the analysis and resolution of moral problems</u>. They will recognize and understand issues in applied ethics. They will understand their own value systems in relation to other value systems. They will judge values and practices in a variety of disciplines.

SCHEDULE OF LECTURES AND LABS BIOLOGY 1107--FALL 2020

Note: This is a best-guess syllabus. Pacing and testing dates may be changed if the need arises. Attend class regularly to keep track of changes.