

SCIN130

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Course Summary

Description

Course Description: This course introduces students to the biological systems within their associated environments. The course furnishes an understanding of biological principles and the properties of life. Topics covered in this course include the structure and function of plants and animals, cell biology principles, genetics, reproduction, development and growth, biological diversity, principles of evolution, and interactions among organisms and with their environment. Online laboratory experiences are incorporated, which are designed to correspond to, complement, and reinforce the concepts presented in the assigned reading material. The lab involves study through interactive simulations, videos, and animations, which will be provided to the student in the form of exercises provided throughout the semester. This is a four credit course that includes both a lecture and a lab component. THIS WILL REQUIRE ADDITIONAL TIME EACH WEEK TO COMPLETE THE LAB, which may have a hands on laboratory component.

Course Scope:

This course is an introduction to the biological systems within their associated environments. It includes a basic introduction to biological systems, the interaction of these systems, and the structure and function of cells and animal organ systems. Because it is a survey course of a broad subject, it will out of necessity cover each topic with a broad brush. Specific topics will include basic principles in the study of life, cells and how they transform energy, DNA and cell reproduction, biological diversity and its evolution, anatomy and physiology of plants, anatomy and physiology of the various animal organ systems, ecology, and the biosphere. In addition to utilizing the assigned biology electronic text, this course is combined to include a virtual laboratory component which uses simulated laboratories to provide the student with a deeper and practical understanding of the basic principles of biology. Unlike an actual laboratory class, with beakers and test tubes, you are able to repeat labs as often as you like, perform experiments without harming live animals, and conduct experiments that may be difficult to perform in an actual lab environment due to time, cost, or location. This course promises to give you a much greater understanding of the complexities that are the study of life.

Objectives

The successful student will fulfill the following learning objectives:

CO-1 Describe the approaches used and the basic tenets of the science of biology.

CO-2 Identify the principles of evolution.

CO-3 Describe the structure and division of living cells.

CO-4 Explain DNA biology and how it influences cancer and other diseases.

CO-5 Compare and contrast the characteristics of viruses, bacteria, protists, fungi, plants, and animals.

CO-6 Describe the concepts of ecology, population, community and ecosystems.

CO-7 Describe the human impact on the earth.

CO-8 Compare and contrast the basic functions, major components and the cell types found within human organ systems.

Outline

Week 1: Student Introductions

Learning Objectives(s)

CO-1, CO-2

Reading(s) and Lab(s)

Course Project Guide

Mader Text:

Chapter 1

Chapter 14

Lab 1

Assignment(s)

Lab 1: The Scientific Method

Week 1 Forum

Homework: Chapters 1, 14

Week 2:

Learning Objectives(s)

CO-2

Reading(s) and Lab(s)

Mader Text:

Chapter 15

Chapter 16

Assignment(s)

Assignment 1—Plagiarism, Writing Tutorial and Academic Honor Pledge

Week 2 Forum

Homework: Chapters 15, 16

Quiz 1:
Chapters 1, 14, 15, 16

Week 3:

Learning Objectives(s)

CO-3

Reading(s) and Lab(s)

Mader Text:

Chapter 4

Chapter 8

Chapter 9

Lab 2

Assignment(s)

Assignment 2—Outline of the Paper

Lab 2: Microscopes

Week 3 Forum

Homework: Chapters 4, 8, 9

Week 4:

Learning Objectives(s)

CO-3, CO-4

Reading(s) and Lab(s)

Mader Text:

Chapter 10

Chapter 11

Lab 3

Assignment(s)

Assignment 3—Abstract Draft

Lab 3: Cell Anatomy

Week 4 Forum

Homework: Chapters 10, 11

Quiz 2:
Chapters 4, 8, 9, 10, 11

Week 5:

Learning Objectives(s)

CO-4, CO-5

Reading(s) and Lab(s)

Mader Text:

Chapter 12

Chapter 13

Chapter 17

Lab 4

Assignment(s)

Lab 4: DNA Biotechnology

Week 5 Forum

Homework: Chapters 12, 13, 17

Week 6:

Learning Objectives(s)

CO-5

Reading(s) and Lab(s)

Mader Text:

Chapter 18

Chapter 19

Assignment(s)

Assignment 4—Organism Profile

Week 6 Forum

Homework: Chapters 18, 19

Quiz 3:

Chapters 12, 13, 17, 18, 19

Week 7:

Learning Objectives(s)

CO-3, CO-8, CO-6

Reading(s) and Lab(s)

Mader Text:

Chapter 22

Chapter 30

Lab 5

Assignment(s)

Assignment 5—Multimedia Presentation

Lab 5: Mendelian Genetics

Week 7 Forum

Homework: Chapters 22, 30

Week 8:

Learning Objectives(s)

CO-6, CO-7

Reading(s) and Lab(s)

Mader Text:

Chapter 31

Chapter 32

Assignment(s)

Week 8 Forum

Homework: Chapters 31, 32

Quiz 4:

Chapters 22, 30, 31, 32

Social Media Extra Credit

Evaluation

The grading will be based on the following:

- Eight Forum Assignments
- Five Laboratory Assessments
- Four Online Quizzes
- Eight Formative Assessments
- Five Part Course Project

Detailed directions on each of these assessments are provided in the classroom.

Grading:

Name	Grade %
Homework	9.00 %
Chapter 1. Biology: The Science of Life	0.50 %
Chapter 4. Inside the Cell	0.50 %
Chapter 8. Cellular Reproduction	0.50 %
Chapter 9. Meiosis and the Genetic Basis of Sexual Reproduction	0.50 %
Chapter 10. Patterns of Inheritance	0.50 %

Chapter 11. DNA Biology	0.50 %
Chapter 12. Biotechnology and Genomics	0.50 %
Chapter 13. Genetic Counseling	0.50 %
Chapter 14. Darwin and Evolution	0.50 %
Chapter 15. Evolution on a Small Scale	0.50 %
Chapter 16. Evolution on a Large Scale	0.50 %
Chapter 17. The Microorganisms: Viruses, Bacteria, and Protists	0.50 %
Chapter 18. Land Environment: Plants and Fungi	0.50 %
Chapter 19. Both Water and Land: Animals	0.50 %
Chapter 22. Being Organized and Steady	0.50 %
Chapter 30. Ecology and Populations	0.50 %
Chapter 31. Communities and Ecosystems	0.50 %
Chapter 32. Human Impact on the Biosphere	0.50 %
Forums	20.00 %
Week 1 Forum Introduction	2.00 %
Week 1 Forum Species Choice	2.00 %
Week 1 Forum Connect Access	2.00 %
Week 2 Forum	2.00 %
Week 3 Forum	2.00 %
Week 4 Forum	2.00 %
Week 5 Forum	2.00 %
Week 6 Forum	2.00 %
Week 7 Forum	2.00 %
Week 8 Forum	2.00 %
Forum Extra Credit	0.75 %
Week 2 Forum Extra Credit	0.13 %
Week 3 Forum Extra Credit	0.13 %
Week 4 Forum Extra Credit	0.13 %
Week 5 Forum Extra Credit	0.13 %
Week 6 Forum Extra Credit	0.13 %
Week 7 Forum Extra Credit	0.13 %
Quizzes	40.00 %
Quiz 1: Chapters 1, 14, 15, and 16	10.00 %
Quiz 2: Chapters 4, 8, 9, 10, and 11	10.00 %
Quiz 3: Chapters 12, 13, 17, 18, and 19	10.00 %
Quiz 4: Chapters 22, 30, 31, and 32	10.00 %
Course Project	18.50 %
Assignment #1: Academic Honor Review and Library Research Primer Quiz	3.70 %
Assignment #2: The Outline	3.70 %
Assignment #3: The Abstract	3.70 %
Assignment #4: Organism Profile	3.70 %

Assignment #5: The Presentation	3.70 %
Labs	12.50 %
Scientific Method	2.50 %
Microscopy Biology	2.50 %
Cell Anatomy	2.50 %
DNA Biology and Technology	2.50 %
Mendelian Genetics	2.50 %
Extra Credit Assignment Social Media	1.00 %
Assignment: EXTRA CREDIT (optional) Social Media	1.00 %

Materials

Book Title: Essentials of Biology, 4th Ed. - The VitalSource e-book is provided via the APUS Bookstore; Connect & LearnSmart Labs provided inside the classroom

Author: Mader & Windelspecht

Publication Info: McGraw-Hill

ISBN: 9780078024221

Book Title: You must validate your cart to get access to your VitalSource e-book(s). If needed, instructions are available here - <http://apus.libguides.com/bookstore/undergraduate>

Author: N/A

Publication Info: N/A

ISBN: N/A

Required Technology

- See the Technology Requirements section of the undergraduate catalog for the minimum hardware and software requirements.
- Microsoft Office 365 is available to APUS students for free. To sign up, visit <http://products.office.com/en-us/student>. If you have questions about accessing the software, please contact Classroom support at classroomsupport@apus.edu.

Course Guidelines

Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Tutoring

- [Tutor.com](http://www.tutor.com) offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided

by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 15% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

Disclaimer Statement

- Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an on-going discussion about the assigned content.
- "Substantive" means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says "I agree" is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

University Policies

[Student Handbook](#)

- [Drop/Withdrawal policy](#)
- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Disability Accommodations](#)

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