INSTRUCTOR: David Wollert

OFFICE: OMN-291-D

OFFICE PHONE: 697-3112

CREDITS: 4

CLASS HOURS: 3

LABORATORY HOURS: 3

* If your instructor is not available, please see Dr. Roy Sofield in OMN F3 or call 697-4485.

COURSE DESCRIPTION
A continuation of BIOL 1110. Covers basic evolutionary principles, survey of the Kingdoms: Eubacteria, Archea, Protists, Fungi, Plantae, and Animalia, basic plant anatomy, physiology, reproduction and development, and animal tissues, nervous system, hormones, circulatory system, gas exchange, digestion, nutrition, homeostasis, immunity and reproduction.

PREREQUISITES
BIOL 1110

ENTRY LEVEL STANDARDS
Beginning students should have met established entrance requirements into college level courses or may enter the course as a special student.

TEXTBOOK/MATERIALS


EMAIL COMMUNICATION
Please note all communication with instructors about your course work should be through the eLearn Email system. For assistance on how to use the eLearn Email tool go to this url: http://river.chattanoogastate.edu/orientations/Student_PDFs/eLearn_eMail_aug09.pdf.

For all other communication the official email system used by the college is through Tiger Mail. This is accessible by clicking the blue paw icon from the top right hand side of your Tiger Web home page https://tigerweb.chattanoogastate.edu/cp/home/displaylogin.
LEARNING OUTCOMES

**PSLO 5:** Issues in today’s world require scientific information and a scientific approach to informed decision making. Therefore, the goal of the Natural Science requirement is to guide students toward becoming scientifically literate. This scientific understanding gained in these courses enhances students’ ability to define and solve problems, reason with an open mind, think critically and creatively, suspend judgment, and make decisions that may have local or global significance. To achieve this, the student will demonstrate an ability to achieve the following Course Learning Outcomes:

- **CSLO-1:** Conduct an experiment, collect and analyze data, and interpret results in a laboratory setting.
- **CSLO-2:** Analyze, evaluate, and test a scientific hypothesis.
- **CSLO-3:** Use basic scientific language and processes, and be able to distinguish between scientific and non-scientific explanations.
- **CSLO-4:** Identify unifying principles and repeatable patterns in nature, the values of natural diversity, and apply them to problems or issues of a scientific nature.
- **CSLO-5:** Analyze and discuss the impact of scientific discovery on human thought and behavior.

REQUIRED ASSESSMENTS

**Lecture Exams.** Four lecture unit exams will be given during the semester. The exams will be primarily multiple choice objective questions but may include short answer, listing, or short essay components. A comprehensive final examination of the same type will also be given. All exams will be computer-scored. Students are responsible for bringing a No. 2 pencil and CSCC student ID to each testing session. If it is to the student’s advantage, a student’s score on the final exam can replace his/her lowest score on one of the four regular lecture exams. In the event that a student fails to take an exam when scheduled, a grade of zero will be recorded. This will then serve as the lowest exam score and will be replaced with the score obtained on the final exam. Only in extremely rare circumstances (and with proper documentation for being absent for two scheduled exams) will a make-up exam be considered. Advanced notice of an absence may permit the taking of an exam early.

**Practical Exams.** Two laboratory exams (midterm and final) will be given during the semester. The exams will be in the format of a lab practical and will be primarily multiple choice objective questions but may include short answer, listing, or short essay components. Laboratory exams MUST be taken at the regularly scheduled times.

**Collaborative Project.** An important skill required of new college graduates is that of collaborative problem solving. With this in mind, students will participate in a collaborative project. Groups consisting of 3-5 students will design and complete a project relevant to a biological topic or issue. The results of the project will be presented to the class during the latter part of the semester. Assigned projects may take the following forms:

- Documentary Video
- Service Project
- Research Paper
- Interview of a Prominent Scientist
Students may request to collaborate on a particular type of project, but ultimately all students will be assigned to groups by the instructor. Project topics will need to be approved by the instructor in advance. Grading criteria will be provided when the projects are formally assigned.

**Quizzes.** Weekly quizzes will be given in the laboratory covering information students are expected to know from the previous week’s lab. Quizzes may also cover general concepts from the exercises scheduled for the current week.

**OTHER EVALUATION METHODS**

Activities designed to support student learning and application of course concepts are available on the e-learn (D2L) course site and on the CD provided with the textbook. Students are encouraged to take advantage of these resources. Electronic student response systems (clickers) may be assigned by the instructor and used in the classroom for formative assessment. The instructor may include other assignments at his/her discretion.

**Electronic Assistance.** No electronic devices may be used during evaluative activities (exams, quizzes) without the express approval of the instructor.

**CSLO/ASSESSMENT ALIGNMENT**

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<tr>
<th>CSLO 1</th>
<th>CSLO 2</th>
<th>CSLO 3</th>
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<th>CSLO 5</th>
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<tr>
<td>Lab Quizzes 1-10</td>
<td>Lab Quizzes 1-10</td>
<td>Lecture Exams 1-4</td>
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<td>Practical Exam 1-2</td>
<td>Practical Exam 1-2</td>
<td>Lab Quizzes 1-10</td>
<td>Lab Quizzes 1-10</td>
<td>Final Exam</td>
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<td>Practical Exam 1-2</td>
<td>Practical Exam 1-2</td>
<td>Collaborative Project</td>
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**OVERALL COURSE GRADING CRITERIA**

The overall course grade will be determined as follows:

- Four Unit Lecture Exams 400 pts
- Midterm Practical Exam 50 pts
- Final Practical Exam 50 pts
- Collaborative Project 50 pts
- Laboratory Quizzes 50 pts
- **Comprehensive Final Examination 100 pts**
- Total 700 pts

The CSCC grading scale will be used to determine the appropriate letter grade.

\[
\begin{align*}
A &= 90 - 100 \quad 630 - 700 \text{ points} \\
B &= 80 - 89 \quad 560 - 629 \text{ points} \\
C &= 70 - 79 \quad 490 - 559 \text{ points} \\
D &= 65 - 69 \quad 455 - 489 \text{ points} \\
F &= 0 - 64 \quad 0 - 454 \text{ points}
\end{align*}
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## TENTATIVE COURSE OUTLINE

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<tr>
<th>WK</th>
<th>LECTURE TOPIC</th>
<th>LAB TOPIC</th>
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<td>Welcome &amp; Introduction CH 13: How Populations Evolve</td>
<td>Introduction &amp; Policies</td>
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<td>2</td>
<td>CH 13: How Populations Evolve CH 14: The Origin of Species</td>
<td>EX 1: Introduction to Fossils</td>
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<td>3</td>
<td>CH 14: The Origin of Species CH 15: Tracing Evolutionary History</td>
<td>EX 2: Hardy Weinberg Equilibrium &amp; Evolution</td>
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<td>4</td>
<td>CH 15: Tracing Evolutionary History CH 16: Origin &amp; Evolution of Microbial Life</td>
<td>EX 3: Genetic Analysis of Stickleback Evolution</td>
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<td>5</td>
<td>EXAM I (Evolution) CH 16: Origin &amp; Evolution of Microbial Life</td>
<td>EX 4: Introduction to Bacteria &amp; Protists</td>
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<td>6</td>
<td>CH 17: Plants, Fungi, &amp; Colonization of Land</td>
<td>EX 5: Introduction to Algae &amp; Fungi</td>
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<td>7</td>
<td>CH 17: Plants, Fungi, &amp; Colonization of Land CH 32: Plant Nutrition &amp; Transport</td>
<td>EX 6: Introduction to Seedless Plants</td>
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<td>8</td>
<td>CH 32: Plant Nutrition &amp; Transport EXAM 2 (Microbial Life, Fungi, &amp; Plants)</td>
<td>EX 7: Introduction to Gymnosperms &amp; Angiosperms</td>
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<td>9</td>
<td>CH 18: Evolution of Invertebrate Diversity</td>
<td>MIDTERM LAB EXAM</td>
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<td>10</td>
<td>CH 19: Evolution of Vertebrate Diversity</td>
<td>EX 8: Introduction to Animals I</td>
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<td>12</td>
<td>CH 21: Nutrition &amp; Digestion CH 22: Gas Exchange</td>
<td>EX 10: Vertebrates &amp; Fetal Pig Dissection</td>
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<td>15</td>
<td>EXAM 4 (Body Systems)</td>
<td>FINAL LAB EXAM</td>
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<tr>
<td>16</td>
<td>COMPREHENSIVE FINAL EXAM</td>
<td>NO LABS</td>
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COURSE DELIVERY FORMAT OPTIONS

Faculty may require online activities and assignments to include online tests and submission of all written and online communications. The extent of online activities / assignments may vary by course but will be specified on the syllabus.

**Standard Format** – This format is the traditional format and may use an online format to provide access to “static” materials which include the syllabus, course material, contact information, and presentations. Faculty must make available when requested a copy of the syllabus and any other instructor-provided course materials, including their contact information. Faculty may require online activities and assignments to include online tests and submission of all written and online communications. The extent of online activities / assignments may vary by course but will be specified on the syllabus.

**Hybrid Format** – This format requires significant online activity. Students in hybrid classes must access course content and assignments using the Internet in order to pass the class, whether it meets full-time or part-time in the classroom. Faculty need not hand out a copy of the syllabus and any other required course material, including their contact information.

**Online Format** – This format requires that the entire class be conducted online. The syllabus, course material, contact information, and presentations will be provided online through the course management system. Assessments may be conducted online or in a proctored environment.

In this course, students must be able to follow directions to access course materials and do course activities online. It is also desirable for students to have the ability to use an Internet search engine to independently locate additional online course-related information.

Please note that there are numerous student computer labs with computers and Internet access available at Chattanooga State.

COLLEGE POLICIES

This class is governed by policies and procedures stated in the current Chattanooga State Student Handbook. Additional or more specific guidelines may apply. The Chattanooga State Student Handbook may be found at: [http://www.chattanoogastate.edu/Student_Services/pdf/sshand.pdf](http://www.chattanoogastate.edu/Student_Services/pdf/sshand.pdf).

**ADA Statement**

Students who have educational, psychological, and / or physical disabilities may be eligible for accommodations that provide equal access to educational programs and activities at Chattanooga State. These students should notify the instructor immediately and should contact Disabilities Support Services within the first two weeks of the semester in order to discuss individual needs. The student must provide documentation of the disability so that reasonable accommodations can be requested in a timely manner. All students are expected to fulfill essential course requirements in order to receive a passing grade in a class, with or without reasonable accommodations.

If an Accommodations Plan has been developed for you by the Office for Disabilities Support Services (Student Center, 1st floor, phone: 423-697-4452), please provide a copy of your Accommodations Plan to your instructor as soon as possible after classes begin.
**Disruptive Students**
The term “classroom disruption” means student behavior which a reasonable person would view as substantially or repeatedly interfering with the activities of a class. A student who persists in disrupting a class will be directed by the faculty member to leave the classroom for the remainder of the class period. The student will be told the reason(s) for such action and given an opportunity to discuss the matter with the faculty member as soon as practical. The faculty member will promptly consult with the Division Dean and the College Judicial Officer. If a disruption is serious and other reasonable measures have failed, the class may be adjourned and the campus police summoned.

- Unauthorized use of any electronic device constitutes a disturbance.
- If you are concerned about the conduct of another student, contact your instructor, the Department Head, or the Division Dean.

**Affirmative Action**
Students who feel that they have not received equal access to educational programming should contact the College Affirmative Action Officer.

**Academic Integrity / Academic Honesty**
In their academic activities students are expected to maintain high standards of honesty and integrity. Academic dishonesty is prohibited. Such conduct includes but is not limited to an attempt by one or more students to use unauthorized information in the taking of an exam; to submit as one’s own work themes, reports, drawings, laboratory notes, computer programs, or other products prepared by another person; or to knowingly assist another student in obtaining or using unauthorized materials. Plagiarism, cheating, and other forms or academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an “F” or zero for an activity or to assign an “F” for the course.