INSTRUCTOR

Mark Ellis: mark.ellis@usu.edu; 435-258-6305 (with voicemail)

This course is entirely online, with students spread across the state, the country, and sometimes the world. With students from many different time zones, and because I live in Hawaii, I don't hold physical office hours. However, I'm nearly always available via email, telephone, or (ideally) in our ChatRoom discussion forum (see Communication/Feedback below).

COURSE DESCRIPTION

This online course will provide students with the pre- and post-Darwinian history of efforts to understand the origin and development of biological diversity. In the years since Darwin published On the Origin of Species in 1859, the evidence for the evolution of life has expanded exponentially, as has the explanatory and predictive power of evolutionary theory. This semester, we'll learn about the origins of and evidence for evolutionary theory and its significance for science and society. To gain deeper insights, we'll have extended discussions about the findings of research into the evolutionary process. We'll also learn how to recognize and evaluate valid evidence for any scientific claims.

COURSE OBJECTIVES

Students will:

- learn about the history of ideas regarding the origins and expansion of biodiversity,
- learn the critical elements of modern evolutionary theory,
- examine components & processes underlying inheritance, variation, and evolutionary change,
- explore various concepts, consequences, and predictions of evolutionary theory,
- gain the necessary background in biology to appreciate how evolutionary change occurs and how new species arise and are recognized,
- develop an understanding of evolutionary theory that can be communicated to others, and
- develop an appreciation for the process of science, including how to recognize and evaluate valid evidence as well as recognize pseudoscience (i.e. real "fake news").

COURSE RESOURCES

Canvas

Log into our Fall 2020 BIOL-3010 course with your A# and your global USU password. That should bring up our Home Page. Once there, click Announcements in the vertical left-side submenu to get the latest information from me. Then click Modules in that submenu and open the module for the current week. There you'll find my comments on our goals for the week, along with links to any presentations, documents, or websites you'll need to open. To return to the Home Page, click Home in the left-side submenu or click the Fall 2020 BIOL-3010 link in the top-left corner of most Canvas pages.

Software

Documents and presentations may be presented as URLs, DOCs, PDFs, PPTs (Powerpoints), MP3s, or MP4s. PDF files can be viewed with the free Acrobat Reader (or with other PDF apps). PPTs and DOCs can be viewed with Microsoft software (MS Office 365 is free for students). Also, a number of free office suites (like Apache Open Office and Libre Office) can open Microsoft files on both Macs and PCs. The personal Google Office Suite (Docs, Sheets, and Slides) is also free, and you can take this course with a Chromebook. MP3s & MP4s can be accessed with various programs (see Presentations below), including VLC – the free audio/video player for Macs and PCs that will open and play most audio and video files.

Textbook

Get the 4th edition of Strickberger's Evolution (2007) by Brian Hall and Benedikt Halligrimsson (Jones & Bartlett Publishers). You can usually get some very good deals, such as here, here, here, here, here, and here. If you purchase the text online and it comes a week or two late, that won't be a problem (I'll post a PDF to get you by until it arrives). Be sure to get the 4th edition (not the 5th)! A used textbook is fine. There may be copies at the USU bookstore as well. If you can't find it, be sure to let me know during the first week of class.

Additional Reading Materials

Besides textbook chapters, other course sources will include articles from peer-reviewed science journals, online presentations, etc., presented as PDFs, DOCs, videos on Canvas, or accessible hyperlinks. New discoveries are constantly being made that enhance our knowledge of biology, biodiversity, evolutionary relationships, and the process and mechanisms of biological evolution. As a result, these readings and presentations vary each semester.

COURSE ACTIVITIES

Assigned Readings

We will read one to two textbook chapters each week, and I'll base our quizzes on information from those chapters. Additionally, we'll read a number of science articles for the assigned discussions.
PowerPoint Presentations

During most weeks, I'll provide 1 or 2 PowerPoint presentations related to the assigned chapter readings. In these presentations, I'll synthesize and expand on information from the textbook. Therefore, to fully appreciate those presentations, you'll need to read the assigned chapters ahead of time.

Surveys

I'll post Surveys 1 and 2 early in the semester. No preparation will be necessary since I want your personal opinions. You'll get 100% credit IF you answer all questions honestly. However, Survey-3 (given at the end of the semester) will be graded as a quiz, with only one correct answer per question — and the questions will be identical to those in Survey-1. So after taking Survey-1, it would be wise to begin discussing each of those questions with your classmates in the ChatRoom during the semester to prepare for Survey-3 (see my recommendations for collaborating on Quizzes below).

Quizzes

We'll have about 6 unproctored, low-pressure, open-book/open-notes 20-point quizzes with multiple choice, matching, or T/F questions based on information in the assigned chapters. You'll have a week to complete each, with no time limit (except the deadline). I allow retakes, but you won't see your score until after a quiz closes. And I allow and encourage student collaboration on quiz questions in the ChatRoom to improve your chances of acing the quizzes. By discussing the questions in the ChatRoom, everyone will benefit. If you take a quiz more than once, I’ll only grade your last attempt (even if previous attempts had higher scores). Please note that any missed assignment will be graded as a zero, so be sure you finish every assignment on time. Better yet, finish your assignments early. That will give you time to discuss any difficult quiz questions in the ChatRoom. And if you learn that you may have missed one or more questions, you'll have time to take the quiz again.

Exams

There will be four 100-point exams posted on Canvas. Like the quizzes, they'll be unproctored, open-book, and open-notes, and you can take them anywhere you can find a WIFI connection. You can even use your smartphone to take a quiz or an exam. However, unlike quizzes, 1) once an exam opens it cannot be discussed with anyone until it closes; 2) once you start you have 3-hours to finish (some students finish in less than an hour); and 3) there are no retakes. Each exam will be available from 8am on a Thursday until midnight the following Saturday, and you can start anytime during that period. But once you start you must finish within the 3-hour time limit. Since it will close at midnight Saturday, be sure you start by or before 9pm Saturday night to ensure you'll have the full 3 hours allotted. The multiple choice, matching, and T/F questions are created mainly from information in my presentations, although some questions may come from the quizzes. I don't create exam questions from material I haven't personally addressed in the presentations or quizzes. Each exam will mainly cover material presented since the previous exam. However, you are expected to retain the major concepts already covered. All quizzes and exams will be scheduled in your Canvas Calendar, so plan your semester accordingly to ensure you don't miss any (a zero on a 100-point exam will severely impact your final grade; see No Late Work Accepted Without Prior Approval below).

Discussions

Serious, thoughtful discussions are the heart of this course. If you don't like participating in serious discussions, either plan to learn how or consider taking another course. For each discussion, you must provide at least 1 original entry and 1 reply. Each entry should be a thoughtful, focused essay of your own ideas, between 125 and 250 words, with a thesis that is germane to the assigned topic. Original entries should expand on the topic and replies should extend the conversation rather than just express agreement with or repeating someone else’s ideas. In your replies, explain why you agree or disagree with someone's entry, but then extend the discussion with clear points and specific examples, and provide references where needed.

Every discussion except the first one will be based on an assigned article, and your goal is to learn about the science in that article by discussing topics it raises. You can approach any scientific topics within the article that interest you. For example, if you think the findings in the article are “interesting,” you must tell us what's interesting about it and why you think so. If you find some information difficult to understand or you have questions about what you read, do some research on those topics and then tell us what you learned. If you can't find satisfactory answers, present your questions to the class so the rest of us can help you. And feel free to criticize the articles (the methods, results, and/or findings). If you think the science is questionable, tell us why you think so. A thoughtfully skeptical approach to the articles can stimulate valuable discussion.

I don't grade heavily on the correctness of your ideas, but instead on their clarity and conciseness. Your entries should, therefore, be essays – which focus on and develop a single thesis. Edit your draft entries repeatedly for good grammar, clarity and conciseness before you post your entry. Have one or more people proofread your essays to clean up spelling and grammatical mistakes, and (more importantly) to ensure you are expressing your ideas effectively. Although you may understand what you’ve written, if others don't, your draft ain't ready.

Two last items. First, your entries must be your ideas in your own words. Plagiarism (copying the ideas of others as your own) is a serious academic infraction (see Academic Dishonesty below). Also, quoting other authors is almost never necessary (unless you need to prove what they said). And since quotations aren't your words, I won't count them as part of the 125-word minimum. Second, it's vital that we treat each other respectfully. Our goal is to learn, not win arguments. We're fortunate to have this opportunity to engage in serious, intellectual dialogue between people with different backgrounds, cultures, ages, experiences, and viewpoints. A diversity of opinions contributes to learning. Unfortunately, aggressive disrespect has become a popular approach to online discussions, which is achingly unproductive. Let's defy that trend and treat each other respectfully.
COURSE AND UNIVERSITY POLICIES

Communication/Feedback

Each weekday I'll post an Announcement in Canvas, usually before noon, with reminders (of assignment due-dates, upcoming events, etc.) and other course information. I'll also be reading (and occasionally replying to) your discussion entries.

The best place to ask your questions is in the ChatRoom forum – my virtual office – which is open to the entire class. By asking your questions there, I will only have to answer once, and everyone will benefit from the exchanges rather than just the person asking the question. And your classmates will often respond with good answers before I do!

Science is an amazingly productive collaborative enterprise. If we all act like scientists as a collaborative team to help each other understand evolution, we'll raise the average grade for the entire class.

But if you feel you need to contact me privately, please email me at mark.ellis@usu.edu and I'll respond by email within 1 week on a weekday (probably sooner). If you need to call me, my number (with voicemail) is 435-258-6305.

Three weeks before Finals you'll be emailed a Course Evaluation link to a site where you can anonymously offer feedback on what you thought of Biol-3010. I welcome feedback and offer 5 extra-credit points to anyone who completes the evaluation.

No Late Work Accepted Without Prior Approval

Consider your enrolment in Biol-3010 as a job position. Just as your company would lose money for missing deadlines, you'll lose points for missing assignment deadlines. Miss too many and you'll lose your job (i.e. fail the course). However, if you experience a legitimate emergency (according to my standards) that prevents you from completing required coursework in the time period allotted, you or someone you know must contact me at the earliest opportunity before the assignment deadline.

Email or call me with the nature of the emergency and when you expect to complete the coursework. Include your phone number and the best time to call. Weddings, vacations, and funerals are not emergencies because: 1) exams have three days for completion and quizzes seven days; 2) quizzes and exams can be taken anywhere WIFI is available; and 3) you can even complete quizzes and exams on your smartphone wherever a signal exists.

Extended periods for assignment completion makes scheduling your classwork flexible and easy. But if you miss a deadline, your score will be zero. The due date and time associated with each assignment will be stated clearly in the Canvas Assignments, Calendar, and Syllabus pages, and I usually give multiple reminders in my Announcements. Explaining why you missed an assignment after the deadline has passed is not the approach to take.

An online course with unproctored quizzes and exams enables you to take our tests anywhere you can find an internet connection or smartphone access. My students often take these assignments while on the road. You can find WIFI connections on campus as well as in coffee shops, libraries, internet cafés, hotels, airports, etc. I taught an entire semester from coffee shops while living in Costa Rica with no home internet (I gained weight eating coffee-shop snacks, but you do what you have to do!).

If you don't have a laptop with WIFI capability, you can use a computer in a public library. Taking multiple-choice quizzes and exams with a smart phone is also easy. If you are enrolled in this online course, I'll assume you have the necessary devices.

Traveling, weddings, and funerals are normal realities of life. All quizzes and exams are scheduled in your Canvas Calendar. So check the schedule during the first week of class and decide if your schedule allows you to take Biol-3010.

Honor Pledge

Students will be held accountable to the Honor Pledge, which all USU students have agreed to: “I pledge, on my honor, to conduct myself with the foremost level of academic integrity.”

Academic Dishonesty

As the Instructor of this course, I am obliged to take appropriate actions in response to academic violations, as defined in the USU Code of Policies & Procedures for Students (see specifically the various sections in Article VI of the Student Code of Conduct, such as Section VI-3). Acts of academic dishonesty include but are not limited to:

1. **Cheating:** (a) using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done “individually”; (b) depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (c) substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work; (d) acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission; (e) continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity; (f) submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or (g) engaging in any form of research fraud.

2. **Falsification:** altering or fabricating any information or citation in an academic exercise or activity.

3. **Plagiarism:** representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or agency engaged in the sale of academic materials.
Special Needs

Students with ADA-documented physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations. Veterans may also be eligible for services. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 435-797-2444 voice, 435-797-0740 TTY, 435-797-2444 VP, or toll free at 800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print, or digital) may be available with advance notice.

Course Fees

All online courses through Utah State University have a $15/credit online course fee. There are no other fees for Biol-3010.

Course Calendar

When you log into Fall 2020 BIOL-3010, click the Calendar icon in the vertical main menu (the dark blue left-side column). Check this calendar regularly, as I update it weekly. However, the dates for all quizzes and exams have already been set for the entire semester. If you feel that your personal schedule during the semester will conflict with these quiz and exam dates, then you should not sign up for the course. Weddings, vacations, volunteer trips, educational seminars, or other important plans are not activities that I will approve for missing these assignments. Fortunately, you’ll have the flexibility of taking each assignment over a range of time. In addition, access to an internet connection is nearly always close by wherever any of us go in the world. So unless you take a trip to the Moon, your plans should not prevent you from completing the assignments. If you decide to take this course, go through our Canvas Calendar now and schedule those quizzes and exams.

Course Schedule

See the Canvas Calendar once the semester begins.

Grading

Your grade will be based strictly on the points and percentages in the tables below. Don’t miss any assignments because I do not give additional extra credit or other opportunities to improve grades. Keep track of your scores and your current percentage throughout the semester (they will be posted in real time in your Canvas Grades page). Although we may have more or fewer assignments than those I’ve listed in the table below, they are typical for this course (however, I may make adjustments to the assignments and the points listed). Please note that I drop the lowest quiz score.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
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<tbody>
<tr>
<td>Four 100pt exams (4 x 100)</td>
<td>400</td>
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<tr>
<td>Six 20pt quizzes (the lowest score is dropped, so 5 x 20)</td>
<td>100</td>
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<tr>
<td>One 10pt survey, one 5pt survey, &amp; one 20pt survey/quiz</td>
<td>35</td>
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<tr>
<td>Five 14pt Discussions (5 x 14)</td>
<td>70</td>
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<tr>
<td><strong>Total Points</strong></td>
<td><strong>605</strong></td>
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Letter Grade Table

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<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>100 – 93%</td>
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<tr>
<td>A-</td>
<td>&lt;93 – 90%</td>
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<tr>
<td>B+</td>
<td>&lt;90 – 87%</td>
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<tr>
<td>B</td>
<td>&lt;87 – 83%</td>
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<tr>
<td>B-</td>
<td>&lt;83 – 80%</td>
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<tr>
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<td>&lt;73 – 70%</td>
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<td>D</td>
<td>&lt;67 – 60%</td>
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