

Course description: Application of ecological methods in the field, laboratory analysis of data, and study and discussion of applied ecology. We will practice, sometimes vicariously due to the current pandemic, collecting, summarizing, analyzing statistically, and interpreting ecological data on species, populations, and the communities in which they reside.

Learning Outcomes: I expect students to be able to define scientific, ecological theories when pertinent, and to understand sampling of natural phenomenon, analyze, and objectively infer ecological relations pertinent to the physical and possibly chemical characteristics and biotic components of ecosystems. I too expect students to be able to interpret coherently data and findings in technical papers pertinent to ecology and to local and global conservation issues.

CLERICAL CONSTRUCTS/ATTENDANCE: I am offering this class **exclusively as an asynchronous online course due to the current COVID-19 pandemic**. Course material occurs in modules on Canvas (though it is possible I will attach some material to an email—EMAIL IS THE PRIMARY MANNER BY WHICH I WILL CONTACT STUDENTS with updates to course material, etc. Thus, watch your emails please for updates). I have audio-complemented PowerPoint slides and thus **you must prompt**, when present, the speaker icon on the lower right space of each slide to listen to my voice/narration. NOTE: you need to first download each Canvas PowerPoint module to engage the audio recording of my voice, and further note that you need to take notes from the recordings because the slide images do not necessarily contain all course material for which you are responsible. Attendance is by default required vis-a-viz taking 2 scheduled exams on Canvas (see times for said tests below). **THE ONLY EXCUSED ABSENCES FROM A SCHEDULED EXAM TIME ARE MEDICAL EMERGENCIES EXCLUSIVELY REGARDING YOU**. Illnesses/funerals ONLY associated with direct/immediate family constitute excused absences from exams. **ALSO MAKE NECESSARY ARRANGEMENTS REGARDING CONFLICTS BETWEEN EXAM TIMES AND WORK SCHEDULES**. Make sure you notify me via email within a reasonable time for alternative schedules, etc.

TESTS AND GRADING: Electronically scored exams in Canvas will cover our material and assigned readings (see below) in your course texts. There will be 1 mid-term test (about 30-50 questions each) and a final exam (again, about 30-50 questions); see times below. The second, or last exam will be comprehensive. A curve typically is used for grading purposes, otherwise expect 90% and above A, 80-89% a B, 70-79% a C, etc. Scores within the above ranges will be assigned “+” and “-” grades at my discretion. There is no extra-credit. Do not hesitate to contact me via email to get an estimate of your performance/grade on tests or for the course overall.

Test format generally will be short answer, brief essay, calculations, data interpretation, and possibly identification of sampling equipment. First Exam, covering Introduction and Planning a Scientific Study, Vegetation Analysis, Statistics, and any assigned

readings, is during **27** (Biol 306, Sec. 2) and **28 October** (Biol. 306, Secs. 1 and 3), given your section and the second and thus the last test (which is comprehensive) is during **8** (Sec. 2) and **9** (Secs. 1 and 3) **December**, during the last week of regular classes. Am still working on exact times of day for tests, but expect morning tests, from about 9 AM until Noon. Fill in your manual as we go along as it is your main reference medium; you do not have to hand in the any part of the manual to me.

Texts: Manual prepared principally by C.M. White, UWSP, and possibly assigned readings. Available to purchase for about \$5.00 in University Bookstore. Also available in text rental is Rosenfield, 2018, *The Cooper's Hawk; breeding ecology and natural history of a winged huntsman*. Regarding assigned readings of technical journal articles you should focus on why the paper is important (Introduction), how the authors did the research (Methods), what were major findings (Results), and what interpretations and/or applications of the findings were presented (Discussion) .

Topics: (see Lab Manual)

Introduction and Planning a Scientific Study

Vegetation/habitat sampling and data analysis

Statistics in Biological Decisions

Population Ecology: demography, life tables, population growth and cycles, quadrat sampling, density, mark-recapture studies

Biodiversity Indices

Conservation Biology

Student Responsibilities:

It is your responsibility to know your rights and responsibilities; please read the following link (it is the same for all your other classes at UWSP):

<http://uwsp.edu/admin/stuaffairs/rights/rightschap14.pdf>

You'll need a calculator—one that you can operate the natural logarithm and exponent keys; be ready to use YOUR calculator on both tests!!

OFFICE HOURS: My office is Room 474 CNR and office hours are 1345-1445 hrs Thursday only by email; I will try to be at a computer at this time, but of course you can email at other times. Note that I have scheduled, mandatory furloughs this semester and that my Wi-Fi service at home is sometimes interrupted—thus do not expect that I will be able to answer an email 'immediately.' We all of course must flex reasonably with day-to-day logistics given the extraordinary circumstances that pervade all aspects of life due to the virus.

DO NOT COME BY MY OFFICE expecting to see me this semester/academic year: I will NOT be meeting in person with any student until it is safe to do so, that is, when medical officials sanction said safety. Know that I sincerely appreciate your understanding and patience during these challenging times.

Let's have some fun!

