

NRM 211
INTRODUCTION TO APPLIED PLANT SCIENCE (3 credits)
Fall 2023

Schedule (two lectures and one 3-hour lab each week)

Evaluation Policy:

Grades will be based on exams, lab and plant identifications, several sets of lab questions, one lab activities report, one literature review, and class participation. The relative importance of each component for the final grade is indicated below:

Exam I	100 (10%)
Exam II	150 (15%)
Final Exam	250 (25%)
Lab	400 (40%)
Lab and Plant ID I	(150 or 15%)
Lab and Plant ID II	(150 or 15%)
Several sets of Lab Questions	(50 or 5%)
Lab Activities Report	(50 or 5%)
Literature Review	50 (5%)
Class participation	<u>50 (5%)</u>
	1,000 points (= 100%)

Letter grades will be determined using the following scale:

A	90.0 to 100 %
B	80.0 to 89.9 %
C	70.0 to 79.9 %
D	60.0 to 69.9 %
F	Below 59.9 %

No make-up exams will be given unless there is a verifiable emergency or arrangements have been made with the instructor prior to the scheduled due date and time.

The UAF Incomplete Grade Policy will be followed. The letter grade “I” (incomplete) is a temporary grade used to indicate that the students has satisfactory completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference is not an acceptable reason for an “I” grade.

Plant ID and Lab Tests:

The first part of the Lab and plant ID tests on October 2 and October 30 consists of questions from lab exercises. These questions will constitute 20% or 30 points of the 150 possible points. The second part is identification of plants in form of pictures, pressed samples or live plant material. Common names and scientific names (correctly spelled) are required for each plant. The plant ID includes 6 groups of plants (agronomy crops; invasive species commonly referred to as weeds; native Alaska plants for ornamental and revegetation purposes; vegetables; herbaceous ornamentals; fruit and berry crops) for a total of 100 species.

Lab Questions:

In addition to the lab activities report (see below), there are several weekly sets of lab questions. The questions are related to the most important concepts covered in the lab. The answered lab questions are due at the end of the lab period and will be administered for lab I, II, III, IV, VI, VII, VIII, X, XI and XIII.

Lab Activities Report:

One lab activities report describing effects of temperature, light and mineral nutrition on plant growth is required. The plants will be growing in the greenhouse throughout the semester with opportunities to make weekly observations and measurements. The report is due (at the latest) on November 15, 2023.

Format for Lab Report on temperature and light (see example on Blackboard/Canvas)

Procedures:

Describe equipment, materials, methods etc.

Describe treatments.

Describe how data were collected.

Results:

Report your observations. The lab report must have actual plant measurements presented in tables and/or graphs.

Discussion and Conclusions:

Summarize in words the data presented under the results.

Discuss the obtained results. Do they differ from expected results?

Make a few concluding remarks.

Literature Review:

One literature review based on a paper from a scientific journal covering a research study related to the development and management of a crop or plant system is required. In addition to the written review, a short presentation of the paper (less than 10 minutes) is expected. The literature review is due (at the latest) November 20, 2023, with a short presentation during the lab period.

Format for Literature Review (see example on Blackboard/Canvas)

a student and the resources available to you to resolve problems, please go to the following site:
<https://catalog.uaf.edu/academics-regulations/students-rights-responsibilities/>.

Disability services statement: Working with the Office of Disability Services reasonable accommodation to students with disabilities will be provided.

ASUAF advocacy statement: The Associated Students of the University of Alaska Fairbanks, the student government of UAF, offers advocacy services to students who feel they are facing issues with staff, faculty, and/or other students specifically if these issues are hindering the ability of the student to succeed in their academics or go about their lives at the university. Students who wish to utilize these services can contact the Student Advocacy Director by visiting the ASUAF office or emailing asuaf.office@alaska.edu.

Student Academic Support:

Speaking Center (907-474-5470, uaf-speakingcenter@alaska.edu, Gruening 507)
Writing Center (907-474-5314, uaf-writingcenter@alaska.edu, Gruening 8th floor)
UAF Math Services, uaf-traccloud@alaska.edu, Chapman Bldg (for math fee-paying students only)
Developmental Math Lab, Gruening 405
The Debbie Moses Learning Center at CTC (907-455-2860, 604 Barnette St, Room 120
<https://www.ctc.uaf.edu/student-services/student-success-center/>

For more information and resources, please see the Academic Advising Resource List

W.14 Tm

For further information on your rights and resources

NRM 211-Fall 2023, tentative schedule (pages Bidlack and Jansky, 2021. Stern's Introductory Plant Biology, **15th ed.**)

M	Aug. 28	Course introduction.	p. 1-10
M	Aug. 28	Lab I: Landgrant universities and experiment stations	
W	Aug. 30	Origin of cultivated plants	p. 243-245, 447-449
M	Sept. 4	Labor Day – no class or lab	
W	Sept. 6	Plant nomenclature and systematics	p. 123, 275-290, A1-A19
M	Sept. 11	Plant cell and tissue structures	p. 27