



F 575 MONITORING FOR ADVANCED SILVICULTURE

INSTRUCTOR INFORMATION

Instructor: Wilfred Previant
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COMMUNICATION POLICY

I will do my very best to respond to your email within 48 hours. If those 48 hours have come and gone, a friendly reminder works well. I can easily get buried with emails and other course obligations and may have overlooked your request. If your email is pressing and I haven't responded (e.g.; you are unable to submit an assignment or exam by the Canvas deadline), your email will receive full consideration.

Because this course requires various online tools (Canvas, Forest Vegetation Simulator (FVS), Forest Inventory and Analysis (FIA), and other platforms), we may experience databases being offline or provided instructions do not align with a recently updated modeling software. We will be able to work through these issues and I highly recommend that if a student finds a solution, please share with everyone – including the instructor.

In return, I do ask that you are comfortable informing me of any conflicts – personal or professional. A quick email or simple Teams message requesting an extension is acceptable. I don't need a reason (unless it will be significant in time); I just need to be aware so I can address any complications effectively and efficiently. Lastly, graduate courses and online learning can be stressful, and it may be difficult to balance all aspects of your life. If you are starting to fall behind, let's meet and discuss a plan of action to make your experience positive and successful.

WELCOME!!

I'm delighted to be teaching F 575 this semester! I have inherited this course from Dr. Seth Ex, and I echo his sentiments:

"My vision for this course is that students come away with a solid working understanding of how and why advanced silvicultural practices such as climate adaptive management depend on monitoring. The course is also a vehicle to build technical competencies related to monitoring, such as forest inventory design and data analysis. We will practice using analytical tools, techniques, and resources throughout the course, allowing students to progress past a conceptual understanding of their application and begin to build competence in their use."

PREREQUISITES FOR COURSE

There are two prerequisite courses: F 230 – Forestry Field Measurements and F 421 – Forest Stand Management. These are common courses with forestry and natural resource degrees. The expectation is that students have some familiarity with forestry / natural resources management practices and basic concepts in statistics / data collection. We will review critical prerequisite content where necessary. Optional background readings will be provided for key content in some modules. Please reach out if you feel essential background or contextual information is missing from the course and I will do my best to provide a resource and consider adding it as background to future course offerings.

COURSE DESCRIPTION & OBJECTIVES

This course is designed to be a practical treatment of monitoring in advanced silvicultural practices for current practitioners as well as graduate students with a background in forestry / forest ecology. We will begin by reviewing key concepts related to silviculture, adaptive management, and monitoring. Next, we will move into technical aspects of monitoring, including basic considerations for inventory design, data analysis and interpretation, and working with Forest Inventory and Analysis data products. We will also work with the Forest Vegetation Simulator (FVS) at multiple points throughout the semester to inform development of monitoring questions. This will include using Climate FVS to simulate forest development under climate change scenarios. The final three weeks of the regular semester will be devoted to preparation of student monitoring plans which will be submitted as recorded presentations.

Upon successful completion of this course, students will be able to:

1. Explain the purpose and goals of monitoring and its application to the adaptive management process.
2. Apply sampling design and basic statistics to appropriately select and utilize sampling protocols.
3. Explore monitoring data available at larger than stand scales.
4. Evaluate the utility of modeling-based resources for assessing climate change impacts to forests.
5. Define monitoring questions that link to clearly articulated management objectives and desired future conditions.
6. Prepare a monitoring protocol within an adaptive management framework that can inform tradeoffs of management priorities and decisions.

TEXTBOOK / COURSE READINGS

There is no required text for this class. The instructor will assign readings from the primary literature and numerous technical documents throughout the semester. All required and optional readings will be provided to students via Canvas.

COURSE MATERIALS & EQUIPMENT

Students will need internet access for Canvas, online modeling software, and accessing open-source databases. Microsoft operating system and Microsoft Office works best for this course, though having access to Chrome can be helpful. Note: I work on Mac OS with Microsoft Office installed and have very limited issues.

INCLUSIVE CLASSROOM

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you. *Source:* <https://education.uiowa.edu/office-dean/policies/syllabus-checklist>

PARTICIPATION/BEHAVIORAL EXPECTATIONS

Please review the [core rules of netiquette](#) for some guidelines and expectations on how to behave in an online learning environment. See Attendance Policy above for expectations of students related to working independently in an online-asynchronous environment. My expectation is that communication among students and between students and myself is timely, courteous, and professional. Students are expected to be responsive to course communication, show up for any appointments on time and ready to work, and be polite and respectful in interactions with others.

Please review the **Communication Policy** outlined above.

ATTENDANCE POLICIES

This course is offered in an online-asynchronous format, so classroom attendance is not strictly relevant. That said, students are expected to move through course content at a pace of one module / week over the semester. I will reach out to students that appear to be falling behind in the course, but ultimately it is your responsibility to make time each week to watch lectures, read assigned literature, and complete assignments.

Students who will miss class due to participation in University-sanctioned extracurricular/co-curricular activities must inform their instructors prior to the anticipated absence and take the initiative to make up missed work in a timely fashion. Instructors must make reasonable efforts to enable students to make up work which must be accomplished under the instructor's supervision (e.g., examinations, laboratories). In the event of a conflict in regard to this policy, individuals may appeal using established University procedures.

For the purposes of this regulation, University-sanctioned activities include competitions, events and professional meetings in which students are officially representing the institution. Appropriate sanctioned activities include:

- a. Intercollegiate athletics;
- b. Collegiate club sports and competitions;
- c. Conferences and workshops recognized by the University not related to academics;
- d. Commitments on behalf of the University (ASCSU, band, etc.); and
- e. Professional activities recognized by the University related to academics.

Department heads or their designated representatives must approve sanctioned professional and departmental activities. Other sanctioned activities must be approved by the appropriate program director on record with the Division of Student Affairs offices or the Department of Athletics.

COURSE POLICIES (LATE ASSIGNMENTS, MAKE-UP EXAMS, ETC.)

Late work policy

Weekly assignments are due Sundays at midnight. Please let me know ahead of time if you know you will be submitting an assignment late and I will work with you within reason to avoid points penalties. Any assignment submitted late without advance notice may be penalized 50%. I reserve the right to refuse assignments submitted more than one week after the due date.

Extra Credit Policy

Extra credit is not available for this course.

Grades of "Incomplete"

Per university policy, an instructor may assign temporary grade of Incomplete to a student who demonstrates that he or she could not complete the requirements of the course due to circumstances beyond the student's control and not reasonably foreseeable. A student must be passing a course at the time that an Incomplete is requested unless the instructor determines that there are extenuating circumstances to assign an Incomplete to a student who is not passing the course.

When an instructor assigns an Incomplete, he or she shall specify in writing using the Department Incomplete Grade Form the requirements the student shall fulfill to complete the course as well as the reasons for granting an Incomplete when the student is not passing the course. The instructor shall retain a copy of this statement in his or her grade records and provide copies to the student and the department head or his or her designee. (Section I.6 of the *Academic Faculty and Administrative Professional Manual*). For more information: <https://registrar.colostate.edu/incomplete-grades/>

GRADING POLICY

Final grades are calculated as a simple percentage earned of total possible points based on the assignments above. Letter grades are assigned using the grading scale below. For rounding purposes, the first decimal will be used. For example, if your final score is 89.9%, this will be rounded to 90%. If your final score is 89.49%, this is not rounded, and your score will stay as a B.

Grade	Range
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

As a student enrolled in this course, one of your responsibilities is to submit course work by the due dates listed in Canvas. With that said, I take my role as your instructor very seriously, and, in fact, I care about how well you do in this course and that you have a satisfying, rewarding experience.

To that end, it is my commitment to you to respond individually to the work you submit in this class and to return your work in a timely manner. Assignments will generally be returned the week following their due date. (If, however, due to unforeseeable circumstances, the grading of your work takes longer, I will keep you informed of my progress and make every effort to return your work with feedback as soon as I can.)

COURSE SCHEDULE AND SCHEDULE OF ASSIGNMENTS

The course is organized into 15 modules. There is one module for each week of the regular semester (no modules over fall break or exam week). Assignments from the previous week are due at midnight on Sunday each week. There is no final exam for this class.

ESSAY AND PROJECT ASSIGNMENTS

The final three weeks of the class are dedicated to preparation of a monitoring plan, peer review of other students' plans, plan revision, and presentation of a final plan. Assignments over these three weeks build on one another and together are worth 35 points. This represents ~20% of the total points for the class. More details will be provided once the semester is underway.

****Note: some of the specifics in this table could change as we move through the semester****

MODULE	TOPIC	ASSIGNMENT(S)	POINTS
1	Course Overview	Introduction Posting Monitoring Question	5 5
2	Introduction to goals and objectives	Paired metric with objective	10
3	Stand-level metrics	FVS 1 running program	15
4	Forest Inventory 1	FVS 2 loading data	15
5	Forest Inventory 2	Fuels monitoring	15
6	Assessment of Current Conditions	Vegetation monitoring	15
7	Large-scale monitoring	Large-scale monitoring	10
8	Policy and Monitoring – FIA I	FIA Short Answer FIA Discussion	5 5
9	Policy and Monitoring – FIA II	FIA EVALIDATOR	15
10	Multi-stand Analysis	FVS Multi-stand	15
11	Local adaptation and assisted migration	Assisted Migration	5
12	Modeling under climate change	Climate FVS	15
13	Project 1 – Prepare a monitoring plan	Monitoring Plan	10
14	Project 2 – Monitoring Plan Reviews	Monitoring Plan Reviews	10
15	Project 3 – presentation of plan	Final monitoring plan presentation	15
Total:			185

**Keep a copy of all work created for the course, including work submitted through Canvas course learning management system.*

CANVAS INFORMATION & TECHNICAL SUPPORT

Canvas is where course content, grades, and communication will reside for this course.

- [Login for Canvas](#)
- [Canvas Support](#)
- For passwords or any other computer-related technical support, contact the [Central IT Technical Support Help Desk](#).
 - (970) 491-7276
 - help@colostate.edu

The [Technical Requirements](#) page identifies the browsers, operating systems, and plugins that work best with Canvas. If you are new to Canvas quickly review [the Canvas Student Orientation](#) materials.

ACADEMIC INTEGRITY & CSU HONOR PLEDGE

This course will adhere to the CSU [Academic Integrity/Misconduct](#) policy as found in the General Catalog and the [Student Conduct Code](#).

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

Further information about Academic Integrity is available at CSU's [Academic Integrity - Student Resources](#).

UNIVERSAL DESIGN FOR LEARNING/ACCOMMODATION OF NEEDS

I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from [The Student Disability Center](#) may be required before any accommodation is provided.

The Student Disability Center (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the SDC.

THIRD-PARTY TOOLS/PRIVACY

Please note that this course may require you to use third-party tools (tools outside of the Canvas learning management system), such as Skype and others. Some of these tools may collect and share information about their users. Because your privacy is important, you are encouraged to consult the privacy policies for any third-party tools in this course so that you are aware of how your personal information is collected, used and shared.

UNDOCUMENTED STUDENT SUPPORT

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit [Student Support Services for Undocumented, DACA & ASSET](#) for resources and support.

Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

TITLE IX/INTERPERSONAL VIOLENCE

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy please go to: [CSU Policy: Title IX Sexual Harrasment.](#)

If you feel that your rights have been compromised at CSU, several resources are available to assist:

- Student Resolution Center, 200 Lory Student Center, 491-7165
- Office of Equal Opportunity, 101 Student Services, 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Victim Assistance Team at: 970-492-4242.

RELIGIOUS OBSERVANCES

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to complete the [Request Form](#) at least one full week prior to the event.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

CSU PRINCIPLES OF COMMUNITY

Inclusion: We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.

Integrity: We are accountable for our actions and will act ethically and honestly in all our interactions.

Respect: We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

Service: We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

CSU'S LAND ACKNOWLEDGEMENT STATEMENT

Colorado State University acknowledges, with respect, that the land we are on today is the traditional and ancestral homelands of the Arapaho, Cheyenne, and Ute Nations and peoples. This was also a site of trade, gathering, and healing for numerous other Native tribes. We recognize the Indigenous peoples as original stewards of this land and all the relatives within it. As these words of acknowledgment are spoken and heard, the ties Nations have to their traditional homelands are renewed and reaffirmed.

CSU is founded as a land-grant institution, and we accept that our mission must encompass access to education and inclusion. And, significantly, that our founding came at a dire cost to Native Nations and peoples whose land this University was built upon. This acknowledgment is the education and inclusion we must practice in recognizing our institutional history, responsibility, and commitment.

<https://landacknowledgment.colostate.edu>

DIVERSITY AND INCLUSION

The [About webpage of the Vice President for Diversity](#) includes a comprehensive statement of CSU's commitment to diversity and inclusion.