



Statement of Teaching Philosophy

How I teach—and why

I teach to grow capable, caring people who can reason with evidence, act with humility, and serve their communities. I was raised in places where learning was lived—on working lands, in community halls, at kitchen tables. That early education still guides my pedagogy: ideas are tested in the field, community is a classroom, and responsibility is not theoretical. We learn by doing, by reflecting on what we did, and by trying again with greater care.

Core commitments

- Student learning and belonging first. Every design choice—syllabus scope, lab protocols, field logistics, assessment timing—serves student learning and a sense of belonging. I mentor intensively, particularly first-generation, rural, and Indigenous students, because flourishing is collective.
- Experiential, place-based learning. We make the landscape our lab. Whether on a ranch, preserve, or campus green, students ask questions of living systems and of people who steward them. We connect theory to practice—every week, not just at the end.
- Rigor with dignity. Rigor is not gatekeeping; it is clarity about standards plus the feedback and time needed to meet them. I pair high expectations with transparent rubrics, iterative feedback cycles, and structured chances to revise.
- Integration of Traditional Ecological Knowledge (TEK) and Western science. I invite students to see multiple knowledge systems—where they align, where they differ, and how we work respectfully across them. We practice ethical engagement and consent, proper attribution, and community benefit.
- Writing, quant, and speaking across the curriculum. Students write often (field notes, short memos, full reports), analyze data in R or Python, and present to diverse audiences. Communication is a skill we build—not a filter we apply.

What this looks like in practice

Small, seminar-style classes (≤ 10 students) and labs are organized around weekly cycles: (1) close reading or problem sets to prime concepts; (2) hands-on lab or fieldwork that generates real data; (3) reflection and critique that ties evidence to theory; (4) revision or extension. I use frequent low-stakes checks for understanding, minute-papers, and collaborative whiteboard/problem sessions. In labs and field settings we emphasize safety, humility, and care for one another—learning to handle equipment, animals, and each other with respect.

Students learn experimental design by designing actual experiments; they learn statistics by analyzing datasets they helped create; they learn ethics by making decisions that affect land, water, animals, and people. I embed small teams with rotating roles (lead, data, safety, comms) so every student practices leadership and followership. We rehearse professional habits: version-controlled notebooks, tidy data, replicable code, and clear metadata. When possible, class projects contribute to an ongoing monitoring or stewardship need so students see how their work matters beyond the gradebook.

Inclusive and relational pedagogy

I begin with names and stories. I invite students to write short intellectual autobiographies and learning goals; we revisit those goals at midterm and at the end. I normalize help-seeking and build structured office hours (individual and group). I design assignments with multiple modes (text, figures, oral briefings) and accessible formats. I watch for the quiet student with good ideas and invite them in; I coach the over-eager student to listen well. I am transparent about the hidden curriculum: how to read a paper, how to ask a question, how to respond to review. I try to model curiosity, kindness, and repair when we miss the mark.

Assessment for growth

Assessment is formative and summative. Early work is scaffolded and low-stakes; later work integrates and demonstrates mastery. I use clear rubrics, exemplars, and checklists. Feedback is fast, specific, and actionable (“strengths,” “next steps,” “resources”). Students revise at least once per unit. I also assess my own teaching—end-of-unit pulse surveys, mid-semester adjustments, and post-course reflections linked to learning outcomes. Over time, this produces a portfolio of student work, syllabi, and evidence of impact.

Courses I teach (selected examples)

Drawn from my existing syllabi and adapted to location and student needs, these courses braid academic rigor with place-based, hands-on learning:

- Introduction to Biology (writing- and lab-intensive): gateways across genetics, physiology, ecology, and evolution; quantitative reasoning throughout; weekly problem-solving and lab reports.
- Introduction to Ecology (with Lab): field sampling, experimental design, population and community dynamics; R-based analysis tied to datasets collected locally.
- Animal Behavior: observational design, ethograms, experimental tests; ethics and welfare; short projects using livestock and wildlife contexts.
- Field Methods in Conservation Biology & Ecology: GPS/GIS, UAV/remote sensing, camera traps, occupancy modeling, science communication.
- Population & Community Ecology: from life tables to coexistence theory; students analyze datasets generated in Field Ecology and Rangeland courses.
- Rangeland Ecology & Management (Conservation Focus): grazing systems, soils and water, forage dynamics; livestock–wildlife interactions; applied range monitoring tied to an operational decision cycle.
- Plants and Civilization (Ethnobotany/Agroecology & TEK): cultivation, stewardship, and knowledge systems; students curate herbarium vouchers and maintain a small teaching garden.
- Research Methods & Critical Thinking in the Natural Sciences: study design, measurement, uncertainty, reproducible workflows; interdisciplinary case studies.

Mentoring and undergraduate research

I recruit students into research as field leads, analysts, and co-authors. We write two-page proposals, run pilots, learn from failure, and scale thoughtfully. I teach students to keep a field notebook that could stand in court and to write reports a manager can use. Many of my

students—especially first-generation, rural, and Indigenous students—persist, transfer, and thrive; they co-present at conferences and move into professional roles in stewardship, agriculture, and science.

Labor, stewardship, and campus life

Much of my teaching happens between formal meetings—on work crews at dawn, over meals, during evening study halls. I have lived and led within working ranch and preserve operations, managing bison and cattle herds, irrigation systems, rotational grazing, range monitoring, equipment maintenance, and emergency protocols. Those experiences translate to course-embedded projects and to a campus culture where learning and labor inform each other.

Evidence of effectiveness

Over 25 years of formal teaching and many more in experiential settings, my students and peers have recognized my work with teaching awards and invitations, but the best evidence is student growth: clearer writing, stronger quantitative reasoning, more careful field practice, and the confidence to take responsibility for people and place. I regularly publish and present with students, secure external funding that pays them fairly, and design projects that benefit partner communities.

Why this approach works

Because learning is relational. Because evidence is persuasive when we collect it ourselves. Because dignity and rigor can, and must, travel together. When we teach this way, students translate curiosity into competence—and competence into service. That is the kind of learning I know how to steward, and the community I work every day to build.