

Welcome to Science Education 490!

SCED 490: The study and practice of effective science instruction; including planning, teaching and reflection of elementary science lessons with an authentic audience.

This will be some of your first experiences teaching whole units in a classrooms setting. I want this course to reflect authentic teaching, propelled by your desire to connect with children, assess their needs and adjust instruction to deliver effective science instruction. My hope is to allow you to struggle productively. I want you to feel challenged and successful. This class is based on the belief that every one of you can improve your teaching practice. It is my job to provide just the right amount of access and support. It's your job to rise to the challenges of this profession- working collaboratively, unpacking elementary students' assets, skills and needs and reflect on how to improve your teaching practice.

Our curriculum this quarter focuses on [3rd grade Life Science NGSS standards!](#)

[NSEA's Students for Salmon Curriculum](#) has been recently updated to provide a well-rounded, place-based experience that partners with the introduction visit and field trip while continuing to support NGSS.

The Curriculum is broken into 6 Learning Cycles, which each are structured to take 1-2 hours of time to complete. Learning Cycles 1-5 are meant to take place after the introduction visit and before the field trip, and Learning Cycle 6 is meant to take place following the field trip.

Prerequisites & Notes: Completion of 480

Instructor: Lauren Dudley - pronouns she/her(s)

I welcome you to contact me outside of class hours. Come find me in my new office outside the Learning Resource Center in SMATE 221, SL230 before/after class or email me.

Office Hours:

Set up a meeting with me using this link: <https://calendly.com/lauren-dudley>

Weekly Meeting: SL230 M/W/F 12:30-2:20

or

Cordata Elementary, Harmony Elementary, or Central Elementary

Email: dudleyl2@wwu.edu

Meeting times/location:

The course is scheduled to meet Monday/Wednesday/Friday 12:30pm-2:20pm. Reserve all of these times for class, though our schedule may vary.

Classes will be held in SL230 and (when practicum begins) at your assigned Elementary - which you can find [here in our Notes doc](#)

Schedule: Here's a snapshot of our [schedule](#)

I am committed to setting up partnerships with teachers and classrooms in the Bellingham Public Schools and working with all of my preservice teachers to ensure a successful practicum. Flexibility; imperative in teaching and learning. In order to be flexible and responsive to the needs and interests of preservice teachers and our public school partnerships, this course agenda is subject to change. Changes, if any, will be announced in Canvas Announcements.

Course Goals & Objectives:

In this course, prospective teachers (you!) will:

- Examine your beliefs in relation to a vision of effective science teaching and learning
- Deepen your subject matter knowledge for teaching science
- Develop an understanding of learners, learning, and issues of diversity and equity in science
- Develop a beginning repertoire of strategies for science instruction and assessment
- Develop the tools and dispositions to study and learn from teaching

These course goals align with and build toward our SMATE Program Outcomes:

Students who graduate from our program can:

1. Demonstrate understanding of science and engineering as defined by three dimensions of science and engineering in the Next Generation Science Standards: disciplinary core ideas, scientific and engineering practices, and crosscutting concepts.
2. Demonstrate functional understanding of science that enables them to design science learning experiences that accurately convey what science is and how science works.
3. Demonstrate knowledge of and ability to apply research-based elements of effective instruction, including applying the Next Generation Science Standards to teach three-dimensionally.
4. Demonstrate functional understanding of culturally appropriate teaching strategies that enable students to design learning experiences that recognize and leverage the assets of diverse learners.
5. Demonstrate functional understanding of how systemic oppression and one's own identity impacts teaching and learning, that enables students to design science learning experiences that respond to multiple identities and disrupt oppressive ideologies, policies, and behaviors in the classroom.
6. Demonstrate understanding that one's own teaching ability will develop over time through experimentation and purposeful reflection in order to design STEM learning environments that continuously improve from implementation of new or revised activities.

Assignments:

This is a learning partnership. This course and these assignments can be improved when you include your life experience and expertise. Please share that with all of us!

Assignments are intended to help you meet specific objectives that align with the course goals listed above. Each assignment will be explained in detail with a rationale and evaluation criteria. Note that in addition to **graded assignments**, you will complete a number of **ungraded assignments** that will act as baseline assessments or that as 'works in progress' will not be counted towards your final grade. Weighting of individual assignments towards the final course grade are indicated.

- Practicum (25%)
 - Foundational Work and Reflections (50%)
 - Attendance/Participation and Professionalism (25%)
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Grading Scheme:

Everyone can be successful in this course. While many of the assignments are graded complete/incomplete or not graded, you will get out of this class as much effort and reflection as you put into teaching preparation and assignments. Much of my feedback is formative in nature. You will receive much more oral feedback than written feedback.

Assignments will be graded, and course grades determined as follows:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F/Z
4-point	4.0	3.7	3.3	3	2.7	2.3	2	1.7	1.3	1	0.7	0
10-point	10	9.3	8.9	8.6	8.3	7.9	7.6	7.3	6.9	6.6	6.3	6.3>
100-point	100	93	89	86	83	79	76	73	69	66	63	63>

Note: A grade of C- or lower in this course will require you to re-take SCED 490. In addition, you will be asked to meet with your academic advisor for support and to develop an improvement plan.

Written assignments must model appropriate grammar, spelling, usage and punctuation. Proofread your papers as you would if you were developing a handout for students or parents.

If you struggle with written assignments, I can often accommodate with an oral/in person submission. Or, visit The Hacherl Writing Center on the second floor of Haggard Hall : <https://library.wvu.edu/rws>

Course Organization and Requirements:

- **Attendance/participation:** In order to maximize learning, we need you in class! In a perfect world, we'd all have perfect attendance-- in recognition that we don't live in a perfect world, and that things will inevitably come up that mean you need to miss class, you are permitted up to two absences without impact on your course grade. You do not need to provide a reason or excuse for these absences-- I do ask that you contact me so I can plan accordingly (e.g., adjusting groups tasks as needed) and provide you with an opportunity to make up any work that you miss.

If you find you need to miss more than two classes, you might be overextended-- I ask that you come see me to talk about your options. Missing more than two classes does not mean you automatically fail, but each absence above 2 will result in a deduction of your course grade. In the event you extenuating circumstances prevent you from completing the course, an incomplete (K) grade might be an option. In this situation, we will meet to develop an [incomplete \(K\) grade contract](#) that specifies a timeline for completing the work.

Cell phone/Tech policy: During class, we will be spending time sharing, listening, and collaborating on all things science teaching. This means that use of cell phones, laptops, and other electronic devices should be turn on silent and put away unless necessary for the activities we are doing in class. If you have any emergencies, planned or otherwise, please let me know as soon as possible.

Late Work: late work is accepted but only up to one week after the due date. Turning in late work will affect your assignment - 2% deduction for each 24 hr period late (up to 14% reduction max before it becomes a zero). Please try to stay on schedule with due dates. This will make my grading job more streamlined and you gaining feedback sooner. For me to accept late submission or consider adjusting grades, you must:

1. ask for an accommodation before the due date
2. ask clarifying questions before the due date
3. provide evidence for why an error in grading has occurred by going through the revision history of the document to provide a screenshot at the time of submission, showing and justifying that you had all of the required components

Texts and required materials:

- Readings and supplemental materials will be provided in this Canvas site or made available via the web or Western Libraries. No additional purchases needed.
- [The LRC Stockroom](#) has much of your teaching and lesson planning needs! If you have a material that is needed for a lesson, it is very likely that we can provide it for you if given enough time to procure the materials.

Physical and Mental Health (Student Services):

Your well-being is both important to me and essential for you to maintain in order to meet the demands of your future teaching career. Please communicate with me if there is anything I can do to support your health this quarter. It's part of my core beliefs that students (of all ages) cannot access academics if their needs are not being met.

Western encourages students to seek assistance and support at the onset of an illness, difficulty, or crisis. As your instructor, I can be a first point of contact to help you find the campus-based resources you may need. Here are some of the resources WWU offers students:

- In the case of a **medical concern or question**, please contact the Health Center (360) 650-3400 or visit its website: <https://studenthealth.wwu.edu/>
- In the case of an **emotional or psychological concern or question**, please contact the Counseling Center: (360) 650-3400 or visit its website: <http://www.wwu.edu/counseling/>
- In the case of a **safety concern**, please contact the University Police: (360) 650-3555 or visit its website: <http://www.wwu.edu/ps/police/Links to an external site.>
- In the case of a **family or personal crisis or emergency**, please contact the Office of Student Life (360) 650-3706 or its website: <https://wp.wwu.edu/officeofstudentlife/Links to an external site.>
- In case of need for **academic support** of assignments/writing papers, please contact The Hacherl Writing Center on the second floor of Haggard Hall : <https://library.wwu.edu/rws> (Links to an external site.)
- In case of **illness including COVID**, please contact the Office of Student: <https://wp.wwu.edu/officeofstudentlife/>

Syllabus Policies:

This course will adhere to Western's [Syllabi Policies](#) for Academic Honesty, Accommodations, Ethical Conduct with WWU Network and Computing Resources, Equal Opportunity, Student Conduct Code, and Medical Excuse Policy.

Third-Party Software and FERPA: During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these are required assignments, you need not make any personally identifying information available on a public site. Do not post or provide any private information about yourself or your classmates. Where appropriate you may use a pseudonym or nickname (ensuring the facilitators know how to identify you). Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personally identifiable/sensitive information. If you have any concerns about this, please contact your instructor. See [FERPA Toolkit](#)