

SCED 480: Science Methods and Curriculum for Elementary School

Credits: 5

Online (synchronous/asynchronous) study of theory, curriculum, science content, processes and effective teaching methods in the context of national and Washington State standards.

**Note:** It is strongly advised that students are prepared to take SCED 480 and SCED 490 in consecutive quarters with the same instructor.

**Prerequisites & Notes:** Completion of Natural Science GURs, including SCED 201 or permission of instructor; SCED 202, SCED 203, and SCED 204 are highly desired GURs; ELED 370 or ELED 372 or SPED 420.

<b>Instructor:</b>	<b>Whitney Morrison- pronouns she/her/hers</b>	
<b>Virtual meeting Space:</b>  <b>Zoom links upon request</b>	<b>Zoom Office Hours:</b> Set up a meeting with me using this link: <a href="https://calendly.com/morrisonmeeting/meeting-with-whitney-morrison">https://calendly.com/morrisonmeeting/meeting-with-whitney-morrison</a>	<b>Weekly Synchronous meeting :</b>
<b>Communication :</b>	<b>Do not use Canvas to communicate- Only email please</b>  <b>Email:</b> <b>houckw@wwu.edu</b>	

In order to be flexible and responsive to the needs and interests of students and the course, this syllabus and course agenda is subject to change. Changes, if any, will be

announced in Canvas Announcements, and assignments will be updated. Students will be held responsible for all changes.

### Meeting times/location:

The course is normally scheduled to meet Monday/Wednesday/Friday 10:00am-11:50am. This quarter, to ensure everyone's safety and well-being, we will use a combination of synchronous and asynchronous learning experiences.

- **Synchronous meetings** will be held in ZOOM during our normally scheduled class time on Fridays from 10:00am-11:50am, additional synchronous collaboration time may be required, you can use the other Monday/Wednesday designated course times to coordinate.
- **Asynchronous learning activities** will be provided for you to complete in place of our scheduled Monday/Wednesday class times (though you may choose the specific days/times you work on those).

Schedule: Here's a snapshot of our [schedule \(Links to an external site.\)](#)

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## Grading Scheme:

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

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F/Z
4-point	4.0	3.9	3.7	3.3	3	2.7	2.3	2	1.7	1.3	1	0.7	0
10-point	10	9.6	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	96	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.

[Requesting P/NP grades: \(Links to an external site.\)](#)

Students may designate a course as Pass/No Pass by submitting a request with the Registrar's Office after registering for the course; they may change this designation by submitting the change to the Registrar's Office at any time through the seventh week of a quarter; for extension program courses, pass/no pass grading designation may be elected up to the end of the seventh week for regular quarter-long courses, or prior to the third class meeting for shorter courses. Students may be advised to stay with a letter grade if required for accreditation, veteran status and benefits, or other purposes.

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## Course Goals & Objectives:

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

1. Examine your beliefs in relation to a vision of effective science teaching and learning
  - Preservice teachers will analyze how their experiences as a learner have shaped their definition of, attitudes toward, and interest in science
  - Preservice teachers will critically examine their conception of 'effective' science teaching and learning, informed by their experiences as both a learner and teacher of science
2. Deepen your subject matter knowledge for teaching science
  - Preservice teachers will critically examine classroom interactions for evidence of student engagement in the practices of science (ie, 'doing science')
  - Preservice teachers will describe elements of the Nature Of Science (NOS), and explain its importance to science instruction
  - Preservice teachers will be able to articulate what students should learn in elementary science, identify big ideas or concepts, and build coherent conceptual storylines
3. Develop an understanding of learners, learning, and issues of diversity and equity in science
  - Preservice teachers will unpack the implicit messages experienced in the educational setting that convey *who* can be a scientist and *how* science is learned
  - Preservice teachers will utilize developmentally appropriate and productive approaches to meet the diverse needs, interests, and abilities of students and create inclusive and equitable science classrooms

- Preservice teachers will understand the role of place and importance of cultural relevance in science education
  - 4. Develop a beginning repertoire of strategies for science instruction and assessment
    - Preservice teachers will design lessons aligned to the Next Generation Science Standards that reflect principles of effective science teaching and learning
    - Preservice teachers demonstrate appropriate design of assessment for formative and summative purposes
  - 5. Develop the tools and dispositions to study and learn from teaching
    - Preservice teachers will utilize feedback (from peers/instructors /cooperating teachers) to improve their teaching
    - Preservice teachers will apply different lenses (e.g., instructional frameworks, research) to analyze and learn from their science teaching and learning experiences
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## Assignments:

Major 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.

- Lesson Plan Task and Reflection (complete/incomplete)
  - Science Autobiography (10%)
  - Learning Journal: Module work (80%)
  - Attendance/Participation and Professionalism (10%)
  - Final Evidence of Student Learning Interview or Paper (complete/incomplete)
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## Course Organization and Requirements:

- **You must complete 60% of each weekly Module to pass the course.** Incomplete modules may result in the need for an incomplete (K) grade to be assigned. To receive a K grade, a student must print an [incomplete \(K\) grade contract](#). ([Links to an external site.](#))

- You will create a Google Doc that will serve as your [Learning Journal](#). Share this Google Doc with me and allow me to edit/revise. This document will hold most work from the weekly modules. More details on assignment page.
  - Attendance/participation: Unless previously excused, your attendance is mandatory during our Wednesday synchronous meetings. If you need to miss a meeting for any reason (personal/tech/connectivity issues), please let me know ASAP via email.
  - Late Work: due to current circumstances, late work will be accepted but will affect your Participation & Professionalism grade. Please try to stay on schedule with due dates. This will make my grading job more streamlined.
  - Written assignments must model appropriate grammar, spelling, usage and punctuation. All written work is to be word-processed (double-spaced, 12 point font) unless otherwise specified. Proofread your papers as you would if you were developing a handout for students or parents. The instructor reserves the right to return work for correction prior to grading if there are multiple mistakes in grammar, spelling, and or punctuation.
  - Netiquette Statement: Please read about netiquette on this [website](#)
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  - We will abide by these netiquette rules outlined on this website.
    - In addition to this netiquette statement, we will come up with virtual classroom norms during our first synchronous meeting.
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## Texts and required materials:

- Readings and supplemental materials will be provided in this Canvas site or made available via the web or Western Libraries.
  - Internet access for various resources and platforms, not limited to: [Zoom](#), [Flipgrid \(Links to an external site.\)](#), Canvas, [G-Suite Apps](#).
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## 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 \(Links to an external site.\)](#)

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## Student Services:

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.wvu.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.wvu.edu/counseling/>
- In the case of a **safety concern**, please contact the University Police: (360) 650-3555 or visit its website: <http://www.wvu.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.wvu.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.wvu.edu/rws> ([Links to an external site.](#))