

Science Education 492

Laboratory/Field Experience in Middle School Science

Preparing thoughtful, knowledgeable, and effective educators for a diverse society.

Credits: 3

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

Prerequisites: SCED 480

Instructor: Whitney Morrison- pronouns she/her/hers

Office Hours, Zoom Personal Meeting ID: Thursday at 11 Zoom - upon invite or request

Communicate via Email, not Canvas Messages: whitney.morrison@wwu.edu

Grade Mode: On the recommendation of the Academic Coordinating Council Executive Council and the Faculty Senate Executive Council and with the approval of the Provost, the University will move to a Pass/No Pass (P/NP) quarter for all students, with the student option of requesting letter grades at the quarter's conclusion.

Rationale: The Coronavirus pandemic has led the university to shift to remote learning, a modality that is new for many faculty and students. These uncharted learning conditions, coupled with the current social and economic instability our students are currently experiencing, will create a challenging quarter. This policy offers a simple and consistent approach to assessment which should alleviate student anxiety and encourage a focus on learning. See [link \(Links to an external site.\)](#) for complete information.

The grading scale is as follows:

A 94-100% A- 90-93% B+ 87-89% B 84-86% B- 80-83%

C+ 77-79% C 74-76% C- 70-73% D+ 67-69% D 64-66%

D- 60-63% F <60%

Tentative Schedule: For a detailed list of activities and assignments week-by-week, visit the [Course Agenda](#). 

In order to be flexible and responsive to the needs and interests of the class, this syllabus and course agenda is subject to change. Changes, if any, will be announced and updated via Canvas. Students will be held responsible for all changes.

Course Organization and Requirements

Each week, you will be required to attend a synchronous meeting , Fridays at 11:00am. The rest of the week, you will complete a module based on a weekly theme, asynchronously. The [Welcome Module](#) is published! Take a look!

1. The class is organized around 9 weekly themes that will begin on 4/6. You will find the weekly themes published under Pages in Canvas.
2. 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.](#))
3. 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.
4. Attendance/participation: Unless previously excused, your attendance is mandatory at synchronous meetings. If you need to miss a meeting for any reason(personal/tech/connectivity issues), please let me know ASAP via email or text.
5. Late Work: due to current circumstances, late work will be accepted without penalty. Please try to stay on schedule with due dates. This will make my grading job more streamlined.
6. 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.
7. Netiquette Statement: Please read about netiquette on this [website \(Links to an external site.\)](#). We will abide by these netiquette rules outline on this website.

Course Goals & Objectives: In this course, Preservice Teachers will:

- Examine your beliefs in relation to a vision of effective science teaching and learning
 - Preservice teachers will evaluate their self-efficacy as it relates to teaching middle school science.
 - Preservice teachers will evaluate curriculum to identify strengths and weaknesses
- Deepen your subject matter knowledge for teaching science

- Preservice teachers will evaluate curriculum to identify its big ideas and learning goals as it relates to Next Generation Science Standards
- Develop an understanding of learners, learning, and issues of diversity and equity in science
 - Preservice teachers will be able to identify developmentally appropriate and productive approaches to meet the diverse needs, interests, and abilities of students.
 - Preservice teachers will understand the role of place and importance of cultural relevance in science education.
- Develop a beginning repertoire of strategies for science instruction and assessment
 - Preservice teachers will experience and evaluate lessons that reflect *How People Learn* and principles of *Effective Science Instruction* and that align with the *Next Generation Science Standards*

Major 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. Weighting of individual assignments towards the final course grade are indicated.

- Initial and Final Reflection (10%)
- Curriculum Evaluation- Unit Progression (10%)
- 5E Lesson Evaluation (10%)
- Curriculum Adaptation, Hands-on Extension (10%)
- Learning Journal: Module work (45%)
- Module Extension (10)
- Attendance/participation (5%)

Required Materials:

- Readings and supplemental materials will be provided on Canvas.
- Internet access for various resources, not limited to: [Zoom \(Links to an external site.\)](#), [Flipgrid \(Links to an external site.\)](#)
- Access to these platforms and websites: Canvas, [G-Suite \(Links to an external site.\)](#) (you have access to all of these through your WWU account)
- No textbook is required, however the texts below are suggested resources to support your learning in the course and your future teaching.

Syllabus Policies

This course will adhere to Western's [Syllabi Policies \(Links to an external site.\)](#) 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 \(Links to an external site.\)](#).

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/> ([Links to an external site.](#))
- 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/> ([Links to an external site.](#))
- 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 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.](#))

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/>