

EDUC 441: Teaching Science in the Middle School

Field Experience Handbook

Fall 2024

Field Experience Assignment(s):

Weeks 3-4: Getting to know the clinical educator, the students, and the curriculum.

During the first few field weeks, the teacher candidates will complete few informal tasks that support them with getting to know their clinical educator, students, and curriculum. In addition to making to submitting reflections on their observations, they will complete one project:

Getting to Know a Student Project / Shadow a Student Project

Teacher candidates will select one student who differs from them on sociocultural dimensions. They will first interview the student. In the interview, they will ask about the student's interests and activities, home and community knowledge base, and feelings about science. They will then observe the student in at two class periods outside of science class. After doing this, they will write a short paper in which they report on what they learned about the student and reflect on how they might teach this student (and all students) given what you learned.

- Week 3: Clinical educators can support teacher candidates by helping them select a focus student, helping them find a time and place to interview this student, and ensuring that they can shadow this student in two classes other than science.
- Week 4: Complete the shadow a student assignment.

Weeks 5-7: Planning and Enacting a Short Lesson. Teacher candidates will plan a mini lesson designed to include features of ambitious science teaching. The lesson components should align with the *Next Generation Science Standards* and illustrate a focus on science and engineering practices or Cross-Cutting Concepts. They will microteach this lesson to their classmates prior to enacting it in the clinical educator's classroom. Teacher candidates will video record their enactment of this mini lesson.

- Weeks 5: Clinical educators can support teacher candidates by giving them a day when they can enact a mini lesson (approximately 20 minutes) during week 6 or 7.
- Weeks 5 or 6: Teacher candidates will share their plan for the mini lesson with their clinical educators for feedback.
- Weeks 6 or 7. Teacher candidates will enact their mini lesson in the field placement classroom and video record it.

Weeks 8-10: Teach a Lesson. Teacher candidates will write one science lesson to be taught during Week 10 using the clinical educator's curriculum and following the clinical educator's pacing guide. Teacher candidates will video record this lesson.

- Week 6: Clinical educators can support teacher candidates by choosing a day, topic, and lesson when the teacher candidates can teach during Week 10, and by providing the teacher candidate with materials that they can use to plan that lesson.
- Weeks 7 & 8: Ideally, teacher candidates would start supporting clinical educators by going over homework, conducting warm ups, etc. Co-teaching experiences should be taking place by this point.
- Week 8: Teacher candidates will collect pre-assessment data from students to support their planning of this lesson.
- Week 9: Teacher candidates should share lesson plan with clinical educators for feedback.
- Week 10: Teacher candidates teach lesson in field and gather assessment data.

Weeks 10 – 12: Teach 2-3 Connected Lessons. Teacher candidates will teach 2-3 connected science lessons during week 12, collect pre-assessment and post-assessment data from students. Teacher candidates will video record these lessons.

Teacher candidates will develop an inquiry question and design a related instructional intervention of 2-3 connected science lessons. Teacher candidates will design a pre- and post-assessment of student learning. They will then analyze the impact of their teaching, comparing the results of the pre- and post-assessments. Using the data as evidence, they will present the results of their analysis to their Clinical Educator and their EDUC 441 class.

- Week 10: Teacher candidates choose days to teach in Week 12. Get materials from clinical educator's curriculum.
- Week 11: Teacher candidates consult with clinical educator for planning connected lessons. Confirm student assessments for project with clinical educator.
- Week 12: Teacher candidates conduct a pre-assessment, teach 2-3 days of connected lessons, and conduct a post-assessment of students' learning.
- Week 14: Teacher candidates share their analysis of student assessment with clinical educators and their classmates.