EDUC 390 Science Strategies for Middle School
Credit Hours: 2
Scheduled hours per week
Lecture: 2
Lab: 0
Field Experience: 20 hours

Catalog Course Description: Instructional strategies and curriculum materials appropriate for the teaching of science in grades 7-9 will be investigated. Students will prepare and use hands-on inquiry lessons in teaching experience with middle school students.

Pre-requisites: Admission to Teacher Education; All science requirements including EDUC 305

Co-requisites: Field Experience

Course Learning Outcomes (CLO):

1. Students will plan middle school science lessons utilizing state standards. (Assessment: field placement lesson plans)
2. Students will teach middle school science lessons utilizing state standards and a variety of instructional strategies. (Assessment: field placement lesson plans)
3. Students will utilize differentiated instruction techniques during middle school science instruction. (Assessment: field placement lesson plans, written assignments)
4. Students will create a middle school science assessment plan based on instructional objectives. (Assessment: field placement lesson plans, unit plan)
5. Students will identify instructional strategies, including integrating technology, needed to effectively engage students in middle school science lessons. (Assessment: field placement lesson plans, written assignments, exam)
6. Students will demonstrate content knowledge of 5-9th grade science standards. (Assessment: exam)

Topics to be studied:

1. National Science Content Standards
2. West Virginia College and Career Readiness Standards for Science
3. Instructional strategies, curriculum materials and equipment for hands-on study of science specific to middle school standards
4. Strategies appropriate to diverse learners
5. Safety standards
6. Assessment of student outcomes in placement
7. Classroom management techniques in placement

Relationship of Course to Program Learning Outcomes (PLO) or Institutional Learning Outcomes:
This course develops "Architects of the Future" by providing opportunities for teacher candidates to increase their understanding of the dimensions of the middle school science college and career readiness standards as well as knowledge of effective instructional and assessment materials and methods. The field experience component at the Professional Development Partnership School enables candidates to demonstrate commitment to the profession as they practice the skills of planning, teaching, interpersonal communication, decision-making and diversity.

Check if approved as : ☐ Foundational Learning Course ☐ Reinforcement Learning Course

Special requirements of the course:

1. Each student will be evaluated on a collection of lesson plans submitted in LiveText and instructors should consider the collection when completing the lesson plan rubric. Students will teach the lessons in the middle school classroom.
2. The Planning Assessment Rubric will be completed by the instructor based upon a collection of 3 lesson plans covering physical, life and earth/space sciences
3. Have a current LiveText (or affiliate) subscription and use BlackBoard for course requirements
4. Submit Background check
5. Submit field experience paperwork and admission to student teaching assessment (in LiveText or its affiliate)

Additional information:

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