Eastern WV Community & Technical College Master Course Record

Course Prefix and Number: GSC 101

Course Title: Physical Science for Educators

Recommended Transcript Title (if over 40 characters) Physical Science for Educators

Date Approved/Revised: September 16, 2014, July 15, 2014; 2-25-21

Credit Hours: 3

Contact hours per week (Based on 15 week term):

Lecture: 3

Lab:

Prerequisite: (Include any exam or placement scores) EDE 100 or permission of the Elementary Education Coordinator

Corequisite:

Pre/Corequisite:

Grading Mode: Letter

Catalog Description: GSC 101, Fundamentals of Physical Science, is an introduction to basic scientific methods and concepts for elementary education majors. The course includes the essentials of physics, chemistry, geology, oceanography, meteorology, and astronomy. This course is part of the WVU Parkersburg Partnership for Elementary Education. The course is designed so that many of the activities and skills can be adapted for the elementary school classroom. This course has a prerequisite of EDE 100 - Introduction to Teacher Education, or the course can be taken by permission of the Education Coordinator.

Course Outcomes:

This course addresses the intellectual and practical skills of inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, teamwork, and problem-solving.

The student who successfully completes this course will be able to:

- 1. evaluate objective questions and solve problems using critical thinking skills stressed in the course.
- 2. evaluate physical science data, problems, and ideas using scientific inquiry.
- 3. demonstrate use of the basic metric system, (International System SI) and units of measurement.
- 4. analyze and graph scientific data.
- 5. apply the steps involved in solving problems using scientific formulas.
- 6. interpret and express numbers in scientific notation.
- 7. explain the basic principles of physics, chemistry, geology, oceanography, meteorology, and astronomy.
- 8. evaluate the meaning of scientific data in order to create solutions for environmental resource management and hazard mitigation problems.

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Implementation Cycle: Fall

Role in College Curriculum: (Check all that apply)

□ General Education Core (Specify category)

Ξ Technical Core (Specify Program) Elementary Education – WVU-Parkersburg Partnership

□ Restricted Elective (Specify Program)

□ General Elective

□ Workforce Education

□ Other (Please specify)

Course Fee: Yes

Instructor's Qualifications: Master's Degree with 18 graduate hours in science courses

Expanded Course Description (provides details regarding major course concepts, target audience, delivery format, etc.)

This course stresses scientific problem-solving using inquiry and evidence evaluation. The scientific methods used in the course emphasize critical and analytical thinking skills, written and oral communication skills, and co-operative teamwork.

Specific scientific topics taught in the course include forces, motion, heat, sound, electricity, magnetism, light atomic structure chemical bonding, chemical equations, chemical applications, origin and evolution of the universe, solar system and Earth, the structure and composition of Earth, rocks and minerals, plate tectonics, the atmosphere, weather and climate, the hydrosphere, (Earth's water resources), Earth resources and environmental topics, and geologic time and the evolution of the biosphere.

Prepared by:

Prepared by: Dr. Sharon Harman, Adjunct Faculty	July 15, 2014
Revised by: Amo Oliverio, Science Faculty	Feb. 9, 2021
Name, Title	Date
Approved Per LOT Minutes	
Curtis Hakala	2-25-21
Dean of Teaching and Learning	Date

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