OAKLAND CITY UNIVERSITY

Teaching of Chemistry for Elementary Educators

Term: Summer I 2020
Format: Hybrid
Location: Oakland City University & by arrangement

Professor Contact Information

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Workshop Description

This hybrid workshop is designed to provide professional development for elementary school teachers. The pre-workshop learning activities and interactive workshop equip teachers with chemistry content knowledge, classroom materials, and fun hands-on experiments that they can replicate in their own classrooms. Furthermore, participants will collaborate with other education professionals to expand their network of colleagues. The learning activities and experiments align with Science and Engineering Process Standards (SEPS.1-SEPS.4); Third Grade Science Standard 3.ESS.3; and Fifth Grade Science Standards 5.PS.1, 5.PS.2, and 5.PS.3. Topics include: matter, measurement, chemical and physical properties, atomic structure and periodicity, conservation of mass, chemical bonding, and acids and bases. 12 hours.

Workshop Learning Outcomes

The workshop is designed to equip elementary educators with the chemistry content to guide elementary school students in hands-on activities that connect to fundamental chemistry concepts Upon successful completion of this workshop, students will be able to:

1. Explain chemical and physical properties of matter, including conservation of mass, atomic structure, periodicity, and acid/base reactivity.
2. Facilitate elementary school-aged children to conduct chemistry experiments.

Instructional Design

Students will explore chemistry concepts through readings, online videos, learning activities, and in-person workshop experiments.

Notional Hours

Students can expect the following volume of learning in meeting the Workshop Learning Outcomes:

- Reading and/or listening to required workshop materials: 3 hours.
- Completing learning activities: 3 hours.
- Participating in a hands-on chemistry lab activity workshop on **June 29, 2020**: 6 hours.