

Print Date: 7/17/14

Course Objectives/Course Outline
Spokane Community College

Course Title: Environmental Chemistry w/Lab
Prefix and Course Number: CHEM 115

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Make accurate observations, isolate issues, and formulate questions.
- Recognize the need for both quantitative and qualitative information.
- Analyze information using available technologies and analytical methods.
- Make justifiable inferences and suggest viable solutions/interpretations.
- Evaluate solutions/interpretations for validity and appropriateness, and make necessary adjustments.
- Observe, read, and listen critically with openness, understanding and respect
- Identify and use vocabularies within specific fields.
- Organize information to develop/support ideas.
- Identify and prioritize their choices.
- Anticipate the consequences or implications of their actions.
- Follow through on commitments.
- Act ethically.
- Work cooperatively and independently.

Course Outline:

Topics include:

- I. Ozone and SMOG chemistry.
- II. Airborne particulates
- III. Acid rain
- IV. Greenhouse effect
- V. Ozone layer
- VI. Structure and chemistry of freshwater bodies
- VII. Environmental impact of metals and organic pollutants
- VIII. Water soil contaminants
- IX. Persistence of contaminants
- X. Soil degradation
- XI. Chemical assessment of contaminants soils
- XII. Soil and water remediation
- XIII. Energy utilization and conservation are emphasized.