

Environmental Science Program Goals and Student Learning Outcomes (Feb 2, 2018)

Goal 1. To improve students' understanding of scientific principles and the methods of science

- **Student Learning Outcome 1.1** Students will summarize major scientific theories
 - **Components**
 - Identify history
 - Distinguish components
 - Interpret interaction of components
 - Defend the implications (predict)

Goal 2. To develop scientific literacy

- **Student Learning Outcome 2.1** Students will be able to use information gathering techniques in scientific inquiry
 - **Components**
 - Proper use of databases
 - Use CRAAP test

Goal 3. To develop critical thinking skills and problem-solving techniques

- **Student Learning Outcome 3.1** Students will apply the scientific method in field and laboratory situations
 - **Components**
 - Ask question
 - Proper method for answering question
 - Data collection
- **Student Learning Outcome 3.2** Students will analyze data
 - **Components**
 - Graphical presentation of data
 - Statistics

Goal 4. To improve students' understanding of current environmental issues

- **Student Learning Outcome 4.1** Students will summarize current environmental issues
 - **Components**
 - Identify issues
 - Distinguish components

- **Student Learning Outcome 4.2** Students will critically argue environmental issues
 - **Components**
 - Interpret interaction of components
 - Defend the implications (predict)

Goal 5. To synthesize and communicate scientific research

- **Student Learning Outcome 5.1** Students will communicate experimental findings or data interpretations orally
- **Student Learning Outcome 5.2** Students will communicate experimental findings or data interpretations in writing