

## **Ch 301 - Chemistry and Society Objectives**

1. Each student will use the scientific method to design and perform experiments that provide information to solve problems.
2. Each student will be able to describe the make up of protons, electrons, neutrons, atoms, molecules, mixtures.
3. Each student will be able to explain the makeup of the earth's atmosphere by writing balanced chemical equations and solving problems related to the interaction of its components.
4. Each student will be able to explain the impact that man has made on the earth's environment from a chemical perspective.
5. Students will demonstrate the differences between elements, compounds and mixtures.
6. Students will be able to use the periodic table to predict the reactions between chemical elements and use it to assist in the solving of problems.
7. Students will be able to explain the role of ozone in the Earth's atmosphere. They will be able to explain the ozone cycle, the interaction of radiation with matter, and the effects of chlorofluorocarbons on the upper atmosphere.
8. Students will develop research and critical thinking skills and use them while reading newspapers magazines, scientific journals, and the internet.
9. Students will use the properties of the phases of matter to explain the greenhouse effect.
10. Students will use the concept of the mole to solve problems.
11. Students will be able to explain and use the laws of thermodynamics from a chemist's perspective. They will be able to use them to solve problems.
12. Students will be able to explain the unique properties of water that make life of Earth possible.
13. Students will be able to explain acids bases and their interaction.
14. Students will be able to explain the causes for acid rain, its impact on the environment, and mitigation procedures.