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Option II, Honors Chemistry Summer Course Syllabus

This Chemistry course is excellent preparation for college bound students, especially those intending a career in science, engineering, or medicine. The curriculum and rigor match typical high school honors Chemistry classes.

The pace and scope of this course are designed for the above average student with a sound understanding of algebra, geometry, and trigonometry. It is a challenging course designed to help the student to learn via problem solving, qualitative and quantitative reasoning, and experimental investigation in a laboratory setting.

The topics covered will include: Measurements, Classification of Matter, Atomic Structure, Electron Configuration, Periodic Table, Ionic Bonding, Covalent Bonding, Organic Chemistry, States of Matter, Thermochemistry, Chemical Equilibrium, Kinetics, Electrochemistry, and Nuclear Chemistry. The materials for this course will be taken from Chemistry, by Wilbraham, World of Chemistry, by Zumdhal and Zumdhal, and Chemical Chemistry, by Kotz. There will also be appropriate handouts in class.

The course meets lab-science requirements as 20-25% of class time is dedicated to inquiry lab activities. Students will have frequent assessments of their progress in their homework and classwork; they will also have periodic formative and summative assessments, and finally a cumulative exam.