

COURSE DESCRIPTION:

This IB course is designed to provide students with an in-depth study of chemistry. The central theme that the properties of matter are a consequence of its structure will be presented to strengthen analytical and critical thinking skills essential to the IB curriculum. Attention will be given to expanding lab skills, enhancing technical writing, applying math skills, and utilizing technology. This course will include a 10-hour project for IB and will anticipate students sitting for the IB chemistry exam in May. Units covered through the year will include:

- Stoichiometry (IB Topic 1)
- Measurement and Data Processing (IB Topic 11)
- Atomic Structure (IB Topic 2 & 12)
- Periodicity (IB Topic 3 & 13)
- Chemical Bonding (IB Topic 4 & 14)
- Energetics (IB Topic 5 & 15)
- Kinetics (IB Topic 6 & 16)
- Equilibrium (IB Topic 7 & 17)
- Acids and Bases (IB Topic 8 & 18)
- Oxidation and Reduction (IB Topic 9 & 19)
- Organic Chemistry (IB Topic 10 & 20)
- Human Biochemistry – First IB Option Topic B
- Food Chemistry – Second IB Option Topic F

COURSE REQUIREMENTS AND MATERIALS:

The general method of teaching will be a combination of lectures with note taking, demonstrations, laboratory investigations, videos, and class discussions.

Textbooks will be provided during the year including: Modern Chemistry by Holt; Chemistry for the IB Diploma by Neuss; Chemistry for Use with IB by Green and Damji.

Students will need to purchase a binder or notebook, loose-leaf paper, lab notebook (Mead five star one subject college ruled notebook), lab folder, graph paper, metric ruler, colored pencils, blue or black pens, pencils, and graphing calculator. They need to replace items as necessary during the year.

LABORATORY INVESTIGATIONS:

All science classrooms are scientific laboratories. A laboratory is a place where scientific investigations and experiments are done. As you study science, you will be carrying out such investigations using equipment and materials that can harm you if not used correctly. Everyone who works in a science laboratory must learn the skills necessary to make it a safe place. Students are expected to read and follow safety guidelines. Parents and students will be required to sign a lab safety agreement. Prior to any lab investigations, students will be expected to have read the procedures and understand the necessary safety precautions.

ASSIGNMENTS:

Daily assignments will be given including: reading, text questions, outside research on current topics, lab reports, reading of journal articles with summary, and preparing for tests.

Assignments will be posted on the MPS website at: www.mpshome.com

Students are responsible for handing in assignments on the date they are due at the beginning of class. It is the student's responsibility to seek out the teacher if there are any questions concerning the assignment. **Late assignments will lose 25% of the total grade per day (*not class*).** No credit will be given once the assignment has been returned and reviewed by the class.

Students who are absent are expected to see the teacher the day they return to school to discuss missed class material, obtain new assignments and turn in assignments that are due. If the absence causes the student to miss a test, the parents are asked to inform the attendance secretary when calling the school that they are aware their child is missing a test. **Make-up tests and labs will be given after school on the day the student returns to receive full credit.**

GRADING:

Student achievement will be based on these factors: tests, lab reports, group 4 project, homework assignments. The grading scale used can be found in the student handbook. Students will be expected to keep track of their grades so they may continually evaluate their progress and parents/students should regularly check their grades on power teacher. The final assessment will be the IB examination taken in May.

Students are requested to save all work that has been submitted and graded until course is complete.

CLASSROOM DISCIPLINE:

Students will be expected to conduct themselves in accordance with the policies stated in the student handbook.

HELP SESSIONS / CONTACTS:

Extra help is available daily after school or as prearranged with the teacher.

Contacting the teacher can be done through e-mail at: jfisher@mpslakers.com or by calling the school.

I have read this syllabus: _____
(student - date)

We (I), the parent(s)/guardian(s) have read this course syllabus:

[parent(s)/guardian(s) - date]