



Maynard Jackson High School

IB Chemistry SL

Course Syllabus

“We are made of star stuff. We are a way for the cosmos to know itself.” Carl Sagan

Course Name: IB Chemistry SL

Room: 2159

Instructor: Dr. Monica Cooper

Office Hours: Tuesday 3:30-4:30PM

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Level: Junior – IB Chemistry Year One - SL & Senior -IB Chemistry Year Two - SL

Course Description

Through studying any of the group 4 subjects, students should become aware of how scientists work and communicate with each other. While the “scientific method” may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that distinguishes the group 4 subjects from other disciplines and characterizes each of the subjects within group 4.

In chemistry, students will be challenged to think scientifically and creatively solve issues. They will be exposed to a wide body of knowledge as well as numerous scientific techniques related to science and technology. In addition, students will develop an ability to analyze, evaluate and synthesize scientific information as they continue to develop their experimental skills. Finally, this course will raise awareness of the moral, ethical, social, economic, and environmental implications of using science and technology and to develop an appreciation of the possibilities and limitations of science. The discussion of these topics will allow the students not only to understand matter, but also to predict properties of matter and some of its changes.

Objectives

The objectives for all group 4 subjects reflect those parts of the aims that will be assessed. Wherever appropriate, the assessment will draw upon environmental and technological contexts and identify the social, moral, and economic effects of science. It is the intention of all the Diploma Program experimental science courses that students achieve the following objectives.

IBO MISSION STATEMENT

The International Baccalaureate Organization aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end, the IBO develops challenging programs of international education and rigorous assessment, encouraging students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right.

The aim of all IB programs is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB Learners we strive to be: Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open-Minded, Caring, Risk-Takers, Balanced, and Reflective.

We focus on key Approaches to Learning, where students focus on the following skills: THINKING, COMMUNICATION, SOCIAL, SELF-MANAGEMENT, and RESEARCH.

In addition, the IB Approaches to Teaching skills are based on inquiry; focused on conceptual understanding; developed in local and global contexts; focused on effective teamwork and collaboration; differentiated to meet the needs of ALL learners; and informed by formative and summative assessment.

Make-up Policy

MAKING UP MISSED ASSIGNMENTS OR TESTS it is the student's and parent's responsibility to plan for make-up work. Students should ask their teacher for any missed assignments on the first day they return to school. All work is posted of Google Classroom less than 24h from the time lesson was shared one on one in class.

MAKING UP MISSED ASSIGNMENTS from ABSENCES

Make-up work (test, lab, classwork) on account of an excused absence must be made up within 10 school days of absence. It is your responsibility (student and parent) to ask for

and obtain the make-up work. Students who are absent on the day of a unit test or quiz must take the test or quiz the day they return, no exceptions! A maximum replacement score of 75% may be obtained and substituted for the previous failing score for any missed assignment or test. Only failing scores can be retested.

Late Work:

Any assignment that is not submitted on the requested due date and time is CONSIDERED late. The late assignments should be submitted to the teacher within 14 days of the assigned date. All accepted late work will receive a late penalty of 25 points. Late work policy – Formative Assignments only (In accordance with MJHS policy)

➤ It is important that all students turn in assignments on time. Many assignments build upon each other and missing work can result in gaps in the student's understanding of the course material. In cases where a student does not turn in an assignment on time and there is no excused reason for the missed work, students have the opportunity to turn in missed assignments within 2 weeks in any class for all or some credit. For instance, if an assignment was due on Monday the 1st, the late work must be turned in by Monday the 14th (whether the class meets that day or not...student must hand deliver or email the work to the teacher by the 14th day).

➤ Teachers have the right to make alternate assignments that cover the same standards in place of the original assignment. Whether making up an alternate or an original assignment, it is imperative that the STUDENT requests the assignment from the teacher– it is not the teacher's responsibility to remind the student they did not turn in an assignment. Student's must either request this work via email or come after school to meet with the teacher to find out what assignment they must complete. These discussions will not take place during class time and should occur on a one-on-one basis.

Deficiency Notices and Progress Reports

The student will periodically receive from the teacher GRADE PROGRESS reports and DEFICIENCY NOTICES. You should review with your parent(s) or guardian(s) **AND** they must sign and return both the GRADE PROGRESS REPORT and DEFICIENCY NOTICE on or before the assigned due date.

Expectations for Technology:

There may be times when the teacher will ask you to utilize your own technology during a class. This technology can include a smart phone, laptop, or tablet. When personal technology is not required by the teacher, the electronic device should be OFF and AWAY.

Academic Integrity

The Atlanta Board of Education recognizes that academic integrity is the foundation of academic excellence and student success. It is the responsibility of every student and employee to exhibit honesty, trust, fairness, respect, and responsibility in academic work always to support a positive learning environment in the school. Violations of [board policy JFA Academic Integrity](#) shall be handled as violations of the student code of conduct and addressed via the progressive discipline guidelines in the Student Handbook. We take academic honesty seriously and use Turnitin, a platform that checks for academic integrity.

Parent Expectations

Parental communication and involvement are essential to the success of all students. This course is heavy in theory and practice and requires extended study at home (**1-2h minimum every day**). We fully welcome your involvement. Parents are encouraged to contact the teacher for updates and concerns. If a parent requests a conference, one will be scheduled as soon as possible.

Grading Systems-Grading Expectations [See Board Policy IHA-R (1)]

- 2.1. Students shall receive report cards after the end of the 9th, 18th, 27th and 36th weeks of the school year. The report cards received after the semester midpoints (9th and 27th weeks) will be considered progress reports for all students.
- 2.3. For grades 6-12, evaluation of student mastery shall be cumulative for the semester.
- 2.4. All students shall receive interim progress reports at least four (4) times per year—4.5 weeks into the school year and midway between report card issuance dates.

Required Materials:

- 3" ring binder
- Dividers/tabs
- Loose leaf paper
- Pencils
- Index cards
- Copy paper (1 ream for year 1 only)

Assessment:

Assignments are to be submitted on time. **On time means** at the beginning of the class for which it is due. If the work is not submitted at that time, you will **lose 10% per day**. When an assignment is not returned to the class, the missing work is worth **zero!**

Culminating Project/Unit Tests/Final Exam: 20%

Homework: 15%

Performance-based/Quizzes: 25%

Classwork/Projects/Labs/Group Work: 40%

FINAL EVALUATION FOR IB CHEMISTRY (at the end of 2 years):**Internal Assessment – Practical Laboratory Work**

- Based on a selection of the student's best work on practical laboratory investigations over 2 years, subject to external moderation by the IBO

Final Examinations in May

- 3 papers over 2 days (set and marked by the IBO):
- Paper 1 (multiple choice questions)
- Paper 2 (data analysis, short answers, extended-response questions based on core)
- Paper 3 (short answers and an extended- response questions based on the 2 options)

Two Year Course Outline

	Standard Level Year 1	Standard Level Year 2
Core	Topic 1: Quantitative chemistry (13.5 hours) Topic 2: Atomic structure (6 hours) Topic 3: Periodicity (6 hours) Topic 4: Bonding (13.5 hours) Topic 5: Energetics (9 hours) Topic 6: Kinetics (7 hours)	Topic 7: Equilibrium (4.5 hours) Topic 8: Acids and Bases (6.5 hours) Topic 9: Redox (8 hours) Topic 10: Organic chemistry (11 hours) Topic 11: Measurement & data Processing (10 hours)
Options	Option D: Medicinal Chemistry Core topic	<ul style="list-style-type: none"> • 15 hours
Core Theory Hours	<ul style="list-style-type: none"> • 48 hours Y1 	<ul style="list-style-type: none"> • 47 hours Y2
Practical Scheme of Work	<ul style="list-style-type: none"> • Practical activities • Individual Investigation (IA) • Group 4 Project 	<ul style="list-style-type: none"> • 20 hours • 10 hours • Group 4 Project 10 hours
Total Teaching Hours:		150 hours