



# Marian Central Catholic High School

## COURSE SYLLABUS 2020/2021

### Chemistry 1-H Science Department

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#### I. Welcome!

Welcome to Chemistry! This is an introduction to high school Chemistry. The goal is to provide students with an environment in which they feel comfortable and a desire to learn Chemistry, while also developing scientific skills. I'm excited to teach this course and hope you're excited to learn!

#### II. Marian Central Course Catalog Description

Chemistry 1-H is designed for those students with higher than average ability in science and math that may be, but not necessarily considering a career in a science and/or engineering field. Chemistry 1-H differs from Chemistry 1 in that the basic topics are covered in greater depth and in a quantitative manner. The ACT skills of data interpretation, experimental design, and evaluation of models and inferences will be emphasized.

#### III. Course Overview

This is a foundational science course that introduces students to high school Chemistry. The students will learn general Chemistry concepts, while gaining scientific knowledge and skills that can be used throughout high school and college.

#### IV. Course Objectives

- Understand the nature of scientific thought and inquiry and the historical development of major scientific ideas.
- Understand and implement the principles and procedures of research and experimental design.
- Understand and implement the procedures for gathering, organizing, interpreting, evaluating, and communicating scientific information.
- Understand the fundamentals of heat.
- Recognize and be able to compare and contrast types of matter.
- Understand and describe the nature of physical and chemical changes in matter.
- Understand and identify factors involved in phase changes.
- Understand and be able to solve problems involving density.
- Understand and be able to describe the general composition of the atom, and the related forms.
- Relate electronic properties to atomic structure.
- Understand periodicity and the reasons for it.
- Write balanced formulas for compounds given the charge/valence of the elements or polyatomic ions involved or from the name of the compound
- Name compounds following proper naming conventions
- Write, balance, and classify chemical equations.
- Perform stoichiometric calculations based upon chemical formulas.
- Understand various methods of expressing concentration of solutions.
- Understand the concept of equilibrium.
- Apply LeChatelier's principle to chemical equilibria.



Define acids and bases. Be able to compare and explain relative strengths of acids and bases.

- Write chemical equations to represent dissociation of ionic solutes.
- Solve and understand buffer systems and titration calculations.
- Identify reactions as oxidation or reduction.

#### V. Course Prerequisites

B or higher in Biology 1-Honors each semester; B or higher in the previous year's honors math course each semester; and concurrent enrollment in an honors math course or departmental approval.

#### VI. Required Texts, Ebooks, and Materials

*World of Chemistry*, three ring binder and/or notebook

#### VII. Supplementary (Optional) Texts and Materials

Writing utensil (pen and/or pencil), personal kleenex, stapler, crayons/colored pencils/markers, scissors, goggles and non-latex gloves (if able to conduct labs later in the year)

#### VIII. Basis for Final Grade

Categories/Assessments	Percent weighting of Final Grade
Formatives	at least 40% of the total grade.
Summatives	at least 60% of the total grade.

Examples of Formative assignments include: quizzes, lab demonstrations, POGILS, guided readings, classwork, homework.

Examples of Summative assignments include: unit tests, chapter quizzes, formal lab reports, projects, presentations

#### MARIAN CENTRAL STANDARD GRADING SCALE

<u>Grade</u>	<u>Number Equivalent</u>
A	95-100
A-	93-94
B+	91-92
B	87-90
B-	85-86
C+	83-84
C	79-82
C-	77-78
D+	75-76
D	72-74



D-  
F

70-71  
Below 70

The semester grade for a course is calculated as follows: the semester letter grade counts as four-fifths and the semester exam counts as one-fifth.

### **IX. Grade Dissemination**

Grades will be updated no less than weekly in Rediker . All work generated by the students will be returned with grades and/or comments as soon as possible.

### **X. Course Policies: Grades**

#### **General**

All reading, homework, laboratory exercises, quizzes, and tests will be geared to helping you understand the material and understand the desired outcomes. Homework and labs involving calculations will not receive full credit for answers only. Set-ups of calculations must be shown. The same applies to tests when calculations are necessary and it says in the directions to show your work for full credit. I value hard work and perseverance in students, and appreciate those who do their best, not just the minimum. While homework will not be collected for correctness grade every day, you will have homework credit often and completion credit will be given.

#### **Late Work Policy**

Late work will be accepted for 80% credit consideration until the assignment is returned. Agency points (up to 20%) will be taken off. Once the assignment has been returned, a maximum of 50% credit consideration. NO LATE WORK WILL BE ACCEPTED AFTER THE ASSESSMENT. A zero will be put into the gradebook until an assignment is turned in. All late work must be turned in by the Friday prior to any quarter or semester assessment for grade consideration. Any late work turned in after that point will receive a 0 in the grade book for the grade period and it will not be changed.

If a test or quiz is missed it is the student's responsibility to schedule a make-up time. If this is not done, the test will be a zero online until the student takes the test. This also applies to laboratory experiments.

#### **Extra Credit Policy:**

There is opportunity for extra credit each semester. To be eligible, the student must have no missing or late work for that semester. If a student has missing or late work, they may not participate in the extra credit offered.

#### **Lab Group Work Policy:**

Lab groups are chosen by the instructor. Each student is responsible for turning in their own analysis and data for the experiment. Labs are an integral part to any science course. Students are expected to participate fully in activities. Lab time is not a time to do other homework or catch up on missing work. If a student does not participate in the lab, a reduction to the final grade of 10% will be assessed.

### **XI. Course Policies: Student Expectations**

#### **Absence Policy:**

If a student is absent they should email the teacher to see what they are missing and/or see the teacher as soon as they



resume classes. The student should also make sure to check the Google Classroom when absent. If there are worksheets the student is missing, and it's possible, the worksheets can be placed in the office for a family member to pick up. The student can have as many days as they were absent from class to make up the assignment. If students miss a lab, they may need to come in before or after school to make up what they missed. Teacher discretion may allow for sharing of data if setup/materials are not available.

#### **Marian Attendance Policy:**

Students will be allowed three (3) days from the date of their return to school to make up any assignments that were assigned during their absence. Students will receive full credit for the assignments made up within the allotted time period. Tests, quizzes, projects, homework, and other assignments which were pre-assigned should be made up or turned in on the first day of the student's return to school (i.e. tests, quizzes, projects, or homework announced prior to the student's absence). If a student is in attendance on the day a test is given, they must take the test before leaving school. Tests and quizzes are to be made up in the library during the class period in which they were missed, or after school with the teacher. If a student fails to show up for a scheduled make-up test (and are present on campus) they will receive a 0% on the test. **If a student misses school only on the day of a test, he or she must be prepared to take the test on the day of return. An alternate form of the test may be given.**

#### **Class Expectations**

Students will be expected to come to class prepared with required materials, this includes textbook,(when indicated) a lab\ notebook or binder, writing utensil, paper and enthusiasm. Students are expected to be courteous and respectful to the teacher and fellow students. Your integrity is more important than your grade. Any bullying or disrespectful behaviour will result in a detention.

Your job is to give your best effort to each and every task, creating great life skills that will set you up for success and the best opportunities in life.

I expect each and every student to follow all safety procedures. There are no exceptions. If proper procedures are not followed then students will lose lab participation points. If the behavior continues students will not be allowed to finish the lab and will receive a zero on the lab and the Director of Discipline will be notified. Students will be expected to help keep their lab bench and sink clean. Students are expected to participate in all aspects of lab work equally, including cleanup, and if they do not they will lose lab points.

#### **Marian Central Academic Integrity Policy:**

One of the important aspects of classroom procedures is the integrity of each student's own work. Dishonesty, cheating and plagiarism may include, but are not limited to – misrepresenting the truth, forging or falsifying school documents, accessing restricted files/information, academic dishonesty including inappropriate use of the internet or information found on the internet, or any other action intended to obtain credit for work not one's own. If a student is found cheating, assisting another on a test or assignment, or otherwise engaging in dishonest activities



including plagiarism, he/she will receive an "F" (0% or 0 points) for that work and a Saturday detention will be assigned. When such a situation arises, the teacher will notify the student's parents and will inform them of the actions taken.

#### **XIII. Education Technology and Use of School Issued Laptop Devices**

Students are expected to use all technology appropriately in class. Students caught off task, using technology in a manner not acceptable for the classroom or any other way except the way that they were instructed to will face disciplinary consequences including but not limited to: teacher contact of parent, teacher issued detention, school issued detention, loss of computer privileges in the class. The only device that should be used is the school issued laptop device unless express permission is given to that individual student by the teacher. A student caught using their personal device/cellphone will be asked once to put the phone away. If the student continues the behavior, the teacher will confiscate it and it will be returned at the end of class. This may also result in a detention. Administration will also be notified of the infraction. Students must make sure their device is charged every day.

Google Classroom will be used as the digital classroom for the class. Students are expected to sign up for and use Google Classroom

Students will be using a variety of websites and apps to enhance student learning including but not limited to: Quizlet, Kahoot, Seesaw, Edpuzzle, Google Slides, PHET Interactive, HHMI, C K-12, flipgrid and many others

#### **XIII. Important Dates to Remember**

Semester 1 Midterm Date: October 16, 2020

Semester 1 Exams	December 16, 2020	Periods 1 & 2
	December 17, 2020	Periods 3, 4/5/6, & 7
	December 18, 2020	Periods 8 & 9

Semester 2 Midterm Date: March 12, 2021

Semester 2 Exams	May 25, 2021	Periods 1 & 2
	May 26, 2021	Periods 3, 4/5/6, & 7
	May 27, 2021	Periods 8 & 9

#### **XIV. Contact Information**

I have an open door policy as far as office hours are concerned. I am available before school starting at 7:30 AM and after school until 3pm; and any student is welcome to come in for extra help. Please try to contact me if coming in for help, so I can make sure I am in my room and available.

Students are welcome to contact me via email or through Google Classroom. I will answer student emails after school if I am available, but students should not expect an answer after 8:00 pm.



Parents should email me using the school email address. I will answer emails sent on Monday-Friday within 24 hours. If an email is sent Friday after school-Sunday, I will reply on Monday.