Pewaukee High School; College Credit in High School
Principles of Chemistry I (Chemistry 211) and
Principles of Chemistry I laboratory (Chemistry 213)
Chem 211 (4 credits); Chem 213 (1 credit
2019-2020; A days; Period 3

This class is a dual credit class in collaboration with the University of Wisconsin-Green Bay. Students at Pewaukee High School may choose to enroll for UWGB credits in addition to high school credit. This creates a college transcript; therefore, it creates a GPA for you which is permanent.

Instructor: Cheryl McCann-Nies
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Availability: MTRF 7:30 am-8:10 am, M-F 2:50 pm - 3:30 pm
Location: Rm 202 Pewaukee High School 510 Lake St Pewaukee, WI 53072

Course Overview/Description:

Principles of Chemistry I is designed to give the student a broad introduction to some of the central concepts of chemistry, such as atomic structure, periodic trends, bonding, structure and properties of matter as well as chemical reactions and processes. Since chemistry is a quantitative field, students will also come to understand the concept of significant figures and uncertainty in measurement. A strong emphasis is placed on lab work, chemical calculations, the mathematical formulation of principles and expressing ideas with clarity and logic.

Course Learning Outcomes:

- General education learning outcomes: An understanding of the natural sciences, including: major concepts, principles and theories of the biological and physical environment; and the impact of scientific and technological activities and products on individuals, society, and the environment.
- UW-GB Chemistry learning outcomes
- PHS reportable and priority standards

Learning environment:

This class will utilize student centered group learning strategies consisting of discussions covering major topics, process oriented guided inquiry learning packets, case studies, application based problem sets and laboratory experiences. Students will be expected to read the textbook and/or utilize video lessons as well complete pre-lab activities prior to class so that they are prepared to take part in the class learning activities and are able to contribute to the collaborative learning process. Resources such as readings, videos, modules, sample problems, online practice and tutorials will be available via the resources button on the course home page in Canvas.

How to be successful in this course:

As partners in learning, we all have responsibilities for every class period. Your instructor is responsible for preparing opportunities for you to learn and practice chemistry and will devote time and energy to helping you succeed. It is important for your success that you do not overlook any of these opportunities and that you come prepared to be engaged, present and active in the learning environment. To be successful your role in this partnership entails:

- Focusing on understanding course content vs. memorization of facts or the attainment of a letter grade
- Completing assignments on the day they are assigned to allow for two resource periods to access needed help
- Making notes about questions you have or concepts you don't understand

- Asking questions and seeking clarification during class; actively participating in the class discussion
- Utilizing the resource period, peer tutoring and supplemental materials (i.e. prep books; Khan academy modules) to review course concepts
- Periodically reviewing and studying over several small sessions vs. one large session the night prior to the test
- Actively reviewing vs. just looking over notes and problems

Grading Policies:

Assignments:

Assignments serve as learning tools that facilitate obtaining content proficiency and are formative. Assignments serve as evidence of readiness for summative assessment and must be submitted prior to the term test. Students with incomplete assignments at the time of the term test will be issued and incomplete and required to attend intervention.

Assessments:

Quizzes will be given at the end of each unit and will include conceptual and calculation based problems. Tests will be given at the end of each term. Material will be derived from the units and laboratory experiments covered in that particular term. Tests will consist of a variety of application based problems, short answer and multiple choice questions.

Laboratory Reports:

Students are required to come to the laboratory prepared to do the experiment. The prelab part of the report must be handwritten in the provided laboratory notebook, including tables for data collection. Students with no laboratory prelab or incomplete prelab will not be allowed to do the experiment. Students will work in pairs as assigned by the instructor. Whenever there is an unknown for the experiment, each student will work individually for the unknown part of the experiment. Each student must prepare his/her own full report, to be submitted one week after the conduct of the experiment. Refer to the Laboratory Notebook Handout on how to prepare the prelab and the full report.

Grade Reporting & Weighting:

Laboratory reports scores will be reported under standard 1 - demonstrates the ability to perform the practices of science. Assignments and assessments will be reported under standard 2 - demonstrates an understanding of matter and its interactions and standard 3 - demonstrates an understanding of chemical reactions and processes as appropriate. Each standard will comprise 33% of the overall term, semester and course grade.

Letter Grading Scale:

UWGB Grading Scale			PHS Grading Scale		
Letter Grade	**Percentage**	**Grade Points per Credit**	**Letter Grade**	**Standards Based Grade**	**Percentage**
A	100 - 92	4.0	A	4.0 - 3.6	100.00 - 90.00
A/B	91 - 88	3.5	A/B	3.5 - 3.3	89.99 - 82.50
B	87 - 82	3.0	B	3.2 - 2.8	82.49 - 70.00
B/C	81 - 79	2.5	B/C	2.7 - 2.3	69.99 - 57.50
C	78 - 71	2.0	C	2.2 - 1.8	57.49 - 45.00
C/D	70 - 68	1.5	C/D	1.7 - 1.3	44.99 - 32.50
D	67 - 60	1.0	D	1.2 - 0.7	32.49 - 17.50
F	< 60	0.0	F	0.6 - 0.0	17.49 - 0.00

Learning Resources:

Textbook: *Chemistry: A Molecular Approach (AP Edition)* 4th ed., by Nivaldo J. Tro; issued to students
Laboratory Notebook: Carbonless chemistry notebook; issued to students
Calculator: Calculator must have the capabilities for scientific notation and logarithmic functions
Lab Goggles: Splash-proof ASC approved available from science department; $7

Course Organization:

Students should utilize Canvas course site to access course resources, lesson agendas, assignments, announcements and calendar.

Tentative Schedule		
Terms	**Chapters**	**Experiments**
1	1, 2, 7, 8,	Density, Relative & Molar Mass, Empirical Formula & Percent Composition of a Hydrate, Formation & Analysis of Copper Sulfide
2	3, 4, 5	Iron-Copper Single Replacement Reaction, Gravimetric Analysis, Acidity of Soda Via Titration, Determination of Calcium in Hard Water, Analysis of Hydrogen Peroxide via Redox Titration
3	9, 10, 11	Molar Mass of a Gas, Verification of Molar Volume & Ideal Gas Constant, Decomposition of Calcium Carbonate, Solid Mixture Analysis via Gas Laws & Titration, Qualitative Analysis and Chemical Bonding
4	12, 13, 6,	Separation of a Mixture Via Chromatography, Analysis of Copper in Brass via Spectrophotometry, Food Calorimetry, Heat of Reaction and Hess's Law

Course Policies:

Attendance: Due to the nature of this course, attendance is extremely important. Students are responsible for making up any missed work due to absences in a timely manner.

- students missing class will be Flexi-scheduled and required to attend resource
- students missing lab for any reason (illness, sports, field trips, etc.) must arrange to make up the lab within the same week at a time the instructor is available
    - no extension will be given for the lab report due date
    - labs not made up will receive a grade of zero
    - students are not allowed to use other students data to prepare the lab report unless instructor approval is obtained in advance for legitimate circumstances

Relearn/Redo: All relearn/redo opportunities are at the discretion of the instructor.

- Students that have demonstrated a good faith effort in the course (i.e. positive participation, productive use of class time, completing assignments on time, utilizing resources, preparing for assessments) may qualify for a relearn/redo opportunity if provided.
    - Term tests are not open for the relearn/redo process
    - Unit quizzes and lab reports may be improved upon via the relearn/redo process
- Students must participate in and demonstrate increased knowledge and proficiency via the relearn process before they are able to undergo a redo to improve a summative assessment score

Course work: Assignments must be 100% complete in order to be accepted.

- Students should access help during resource or after school to ensure assignments are fully completed
  - "I tried but didn't understand it" is not a valid reason for leaving things blank
  - Asking for help upon entering class the day an assignment is due is not acceptable
- Problems must be supported by shown work in order to be accepted
- Questions and lab analysis must be answered with complete sentences to be accepted
- Assignments must be organized and legible in order to be accepted
- Incomplete/unacceptable coursework will be scored as a zero
- Unacceptable work will result in assignment to resource via Flexisched and ineligibility for relearn/redo
- Intervention attendance will be required of students missing multiple assignments

Lab expectations:

- Students must pass a safety test and return a safety contract prior to working in the laboratory
- Students will be charged for any equipment damaged as a result of not following proper procedures
- Unsafe laboratory behavior will be a factor in successful completion/course grade for chemistry
- Lab safety violations will result in removal from the laboratory and a behavior referral and may result in dismissal from chemistry

Behavior/Electronics:

- Cell phones must be silenced and placed in the caddy upon entering the room
- Cell phones must be in the caddy in order to get a pass to leave the class
  - passes out of class are not permitted the first or last 10 minutes of class
  - pass privileges may be revoked due to over or misuse
- Earbuds/airpods may not be worn (in ears or dangling around neck) unless approved by instructor
- Students are to bring these items to every class: goggles, calculator, charged laptop, course materials
- School policies, as stated in the student handbook, are to be followed; failure to do so will result in negative consequences as deemed appropriate by the instructor and administration

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UWGB Policies: *By registering, you accept responsibility for compliance with UW-Green Bay rules, regulations, and policies (**www.uwgb.edu/policies**).* For additional information and resources, visit the UW-Green Bay College Credit in High School website at https://www.uwgb.edu/ccihs/

UWGB Academic Integrity

As stated from the UWS 14.01 Statement of principles, "The Board of Regents, administrators, faculty, academic staff and students of the University of Wisconsin System believe that academic honesty and integrity are fundamental to the mission of higher education and of the University of Wisconsin System. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions." The entirety of the Student Academic Disciplinary Procedures can be accessed from this link.. *These procedures state that if there is any academic dishonesty of your academic work, there are consequences that can become part of your permanent college record.*

UWGB Drop and Withdrawal

This course follows the UW-Green Bay policies for drops and withdrawals.

- This CCIHS course follows the 14 week course policies. *Once 14 calendar days have passed from the course start date, courses cannot be dropped without academic/fee penalties*
- Information can be found at https://www.uwgb.edu/bursar/refunds/refund-and-drop-schedule/ and https://www.uwgb.edu/bursar/term-deadline-calendar/

Course grade(s) are final and will become part of my permanent college record. Enrollment in a CCIHS course does not guarantee admission to any college, including UW-Green Bay. By registering for this course you will be responsible for paying the high school for all tuition/fees owed for this course enrollment.