



Course Title: Honors Chemistry

Credit(s): 2 credits

Teacher: Mr. David Harnish

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Course Description:

Chemistry Honors is a Core 40 class and includes the topics of matter, atomic structure, chemical bonding, radioactivity, chemical composition, reactions, behavior of gases, and acids/bases. This material is covered at a greater depth than the regular chemistry level. This course is conducted at an elevated pace, and students are expected to have a strong command of mathematical problem solving skills. This course is intended for the college-bound student who plans to major in the sciences and needs a strong background in chemistry.

Textbook/Resources:

Modern Chemistry, Davis, Frey, Sarquis, and Sarquis, 2006, Holt, Rinehart, and Winston

Textbook on CD-ROM available on request

Online resources available at www.go.hrw.com

Supplies:

*textbook

*3-ring binder (provided)

*pencil and pen (not red)

*paper

*scientific calculator (only classroom calculators can be used on quizzes and tests)

Learning Goals: Upon completion of this course students will

1. To gain a working understanding of chemistry based on the State of Indiana standards.
2. To demonstrate proficiency of the topics to be presented in this course at the college level as a result of this course.

Course Expectations:

The major objective is to have all students learn and be successful in this class. No student has the right to interfere in any way with my ability to teach and students to learn.

1. All students are expected to follow the outlined procedures as stated in the LCHS Code of Conduct
2. All students will be expected to follow the procedures outlined in the teacher provided "Course Description and Classroom Procedures" and "Lab Safety Agreement" handouts.
3. Electronic devices such as cell phones, Ipods, etc. are not to be "on, seen, or heard" in the classroom
4. Set high personal goals.
5. Show respect for your fellow students, the instructor, and the room and its contents.
6. Appropriate clothing (including closed shoes) are required during lab experiments.

Grade Determination:

Examinations/Assessments	55	% of Grade
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and Projects

Quizzes	25	% of Grade
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Labs and Homework	20	% of Grade
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% of Grade

% of Grade

Semester Formula:

First 9 weeks = 40 % of the semester grade

Second 9 weeks = 40 % of the semester grade

Final Exam = 20 % of the semester grade

Late Work Policy:

Late assignments are not accepted for credit. Make up work due to absences should be made up as soon as possible so that the student does not fall further behind. A zero will be recorded in the grade book and on the on-line gradebook until the make up assignment is completed and turned in for grading.

Methods of Instruction:

- *lecture
- *demonstrations
- *discussion
- *films
- *lab exercises
- *computer lab
- *testing

Reading Comprehension Strategies:

- *concept maps
- *2-column notes
- *outlining
- *reading guides

Grading Scale:

100-93 %	= A
92-90 %	= A-
89-87 %	= B+
86-83 %	= B
82-80 %	= B-
79-77 %	= C+
76-73 %	= C
72-70 %	= C-
69-67 %	= D+
66-63 %	= D
62-60 %	= D-
59-0 %	= F

Additional Information:

*rounding of final grades is done to the nearest .5 %

*students are expected to have the math prerequisites for this course; please see current addition of Course Description Guide available in the guidance office

*students may only use their own calculators for classwork and homework; only teacher provided calculators can be used on quizzes and tests

*extra credit projects are not available in this course but occasional bonus points on enrichment questions may be available

*Practice and Homework assigned in class will be checked for completion on specified due dates; all Practice and Homework assignments for a particular chapter will be turned in for a single homework grade on the day of the chapter test

Course Outline:

Semester 1

Unit 1 Matter and Scientific Calculations - Chapters 1, 2.3, 16.1 (7 blocks)

Unit 2 Basics of the Atom and Nuclear Chemistry - Chapter 3.2, 21., 21.2, 21.3 (5 blocks)

Unit 3 Quantum Mechanical Model, Quantum Numbers, Periodic Trends - Chapters 4, 5.1, 5.3 (9 blocks)

Unit 4 Chemical Bonding - Chapter 6 (7 blocks)

Unit 5 Chemical names - Chapters 7.1, 22.1, 22.2, 22.3 (8 blocks)

Unit 6 Redox - Chapters 19, 7.2 (6 blocks)

Semester 2

Unit 7 Chemical Equations and Reactions - Chapters 8, 13.116.2, 17.1, 17.2 (9 blocks)

Unit 8 The Mole - Chapters 3.3, 7.3, 7.4 (8 blocks)

Unit 9 Stoichiometry - Chapter 9 (6 blocks)

Unit 10 Gases - Chapters 10.1, 11 (6 blocks)

Unit 11 Solutions - Chapter 12, 18.2 (6 blocks)

Unit 12 Acids, Bases, and Salts - Chapter 14.1, 15.1, 15.2 (6 blocks)

Course Outline (continued):

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