



PRE-AP CHEMISTRY IA

Bryan Collegiate High School

Fall 2008



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Class meets: _____ Room 500
Office Hours: Monday–Friday 8:00–8:30 AM
Monday–Thursday 3:30–4:30 PM
and by appointment as necessary

PHILOSOPHY AND PURPOSE OF COURSE: Chemistry is the study of the composition, structure, and properties of matter and the changes it undergoes. Your goal is not to simply memorize content, but to learn to appreciate the world around you in a more profound way. This class should challenge you to think critically, solve problems creatively and help you understand aspects of the natural world. Additionally, this is a Pre-AP class that will require a significant amount of effort on your behalf. Your instructor's job is not to deliver information to you but to help you learn to explore and seek answers both individually and as collaborative groups. You will have the pleasure of delving deeper into subject matter compared to level chemistry classes which will require increased effort both in and out of class. You can expect outside reading, projects, laboratory investigations and involved discussions.

COURSE STANDARDS: Chemistry instruction in Texas public high schools is guided by Texas Administrative Code (TAC), Title 19, Part II, Chapter 112 subchapter C. To view the standards in their entirety, please visit <http://www.tea.state.tx.us/rules/tac/chapter112/ch112c.html#112.45>. Additionally, The National Academy of Science's *National Science Education Standards* govern many of the methodologies utilized in K-12 science instruction. The complete standards may be viewed at: <http://www.nap.edu/readingroom/books/nses/html/>. Additionally, this course satisfies relative Texas College Readiness Standards as outlined by the Texas Higher Education Coordinating Board. Please visit <http://www.theccb.state.tx.us/collegereadiness/CRS.pdf> to view the Texas College Readiness Standards.

REQUIRED TEXT: *Modern Chemistry* (2002) by Holt, Rinehart and Winston. Text will be issued to you at the beginning of the year, and it should be kept at home for reference and assignments.

SUPPLY LIST: BCHS students are required to have loose leaf notebook paper, pens, and pencils for every class. Interactive Notebooks will be utilized throughout the course, so four single-subject notebooks will be required. You will be provided one notebook to start the year. You will purchase three additional notebooks when requested. Handouts will be made available and should be kept neatly. It is imperative that you bring all materials to class every meeting. Laboratory safety goggles and aprons will be provided. You **must** wear closed-toe shoes to participate in laboratory exercises and experiments. *If you are unable to complete a lab assignment because you are not properly dressed, it will be your responsibility to complete the lab at an alternate time for reduced credit.*

OFFICE HOURS: I am available in room 500 during office hours. Given 24-hour notice I will gladly arrive at school earlier or stay after for individuals who cannot meet during these times.

GRADING POLICY: Grading for the semester will be based on a 1000-point system. You may access your grades for all courses any time at: <http://grades.bryanisd.org>

2 Major Exams @ 100 pts each	200
2 Notebook Checks @ 80 pts each	160
8 Unit Quizzes @ 25 pts each	200
8 Labs @ 15 points each	120
8 Class Quizzes @ 15 points each	120
Final Exam (cumulative)	200

EXTRA CREDIT: Extra credit is available upon request to students who have completed all course assignments on time. The completion of assignments, whether taken for a grade or not, is the best preparation for success in any course. If you manage your time wisely, complete all required and suggested assignments, attend tutorials when needed, and study effectively for major assessments you will be successful.

INDEPENDENT PROJECTS: Each student will be required to carry out one independent project. This is a significant part of the Pre-AP Chemistry class and will require a fair amount of non-class time to successfully complete. See independent project description and rubric handouts for more information.

RULES IN CHEMISTRY: The only rule is to RESPECT all others and their property. This includes yourself, your classmates, your instructor and school staff. This rule is followed if you exhibit:

Responsibility – Take responsibility for yourself and your actions.

Effort – Exhibit effort in everything you do.

Safety – Maintain a safe environment for you and those around you.

Preparedness – Be prepared every time you enter the classroom.

Encouragement – Always encourage your classmates.

Compliance – Comply with all school rules.

Timeliness – Be on time and utilize your time wisely.

FALL CALENDAR:

August 25/26	Introduction to Pre-AP Chemistry; Lab Safety and Equipment; IAN Set-up
August 27/28	Chapter 1 – Matter and Change
August 29	Chapter 1 – <u>Lab</u> : Physical and Chemical Properties and Changes
September 1/2	Unit 1 Quiz (Lab Safety/Equipment, Chapter 1, Element Symbols); Scientific Method
September 3/4	Chapter 2 – Science Method, Units of Measurement, Density
September 5	Chapter 2 – <u>Lab</u> : Mass, Volume and Density
September 8/9	Chapter 2 – Dimensional Analysis, Accuracy & Precision, Sig Figs, Scientific Notation
September 10/11	Flex Day/ Review Unit 2
September 12	Unit 2 Quiz
September 15/16	Chapter 3 – Dalton’s Theory, Subatomic Particles
September 17/18	Chapter 3 – <u>Lab</u> : Isotopes; Average Atomic Mass
September 19	Chapter 3 – The Mole
September 22/23	Review/ Unit 3 Quiz
September 24/25	Review/Flex Day
September 26	EXAM 1 (Units 1-3)
September 29/30	Chapter 4 – Characteristics of Light
October 1/2	Chapter 4 – <u>Lab</u> : Flame Tests; Quantum Mechanical Model
October 3	Chapter 4 – Aufbau diagrams and electron configurations
October 6/7	Review/Flex Day
October 8/9	Unit 4 Quiz; IAN Check #1 (Units 1-4)
October 10	Chapter 5 – History of the Periodic Table, electron configurations

October 13/14	Teacher Inservice on Monday, Tuesday TBA
October 15/16	PSAT on Wednesday, Thursday TBA
October 17	Chapter 5 – Periodic Trends
October 20/21	Chapter 5 – <u>Lab</u> : Periodic Law
October 22/23	Flex/Review Day
October 24	Unit 5 Quiz
October 27/28	Chapter 6 – bond types, characteristics
October 29/30	Chapter 6 – Bonding Characteristics; Lewis Dot Structures
October 31	Sophomore Field Trip
November 3/4	Chapter 6 – VSEPR Theory; molecular polarity and intermolecular forces
November 5/6	Chapter 6 – <u>Lab</u> : Molecular Shapes; review
November 7	Unit 6 Quiz
November 10/11	Flex/Review Day
November 12/13	EXAM 2 (Units 4-6)
November 14	Chapter 7 – Naming Compounds
November 17/18	Chapter 7 – Practice Naming Compounds; molar mass
November 19/20	Chapter 7 – <u>Lab</u> : Percent Composition and Formulas
November 21	Flex/Review Day
November 24/25	Unit 7 Quiz
November 26/27/28	Thanksgiving Holiday
December 1/2	Writing Chemical Equations
December 3/4	Chapter 8 – Types of Chemical Reactions
December 5	Chapter 8 – <u>Lab</u> : Chemical Reactions
December 8/9	Chapter 8 – <u>Lab</u> : Chemical Reactions (continued)
December 10/11	Unit 8 Quiz
December 12	IAN Check #2 (Units 5-8)
December 15/16	Review for Final Exam
December 17/18/19	Final Exam (Units 1-8)

Please consult the **Bryan ISD Student Handbook** for policies regarding conduct, late-work, make-up work and progress/grade reports. Should you require clarification of any item presented here or in the handbook do not hesitate to ask your instructor. The instructor reserves the right to modify this syllabus at any time with student notification.

Fall 2008 Point Accumulation – Pre-AP Chemistry

		Due Date	Points Possible	Points Earned
2 Major Exams @ 100 points each	Exam 1 (units 1-3)	Sept. 26	100	
	Exam 2 (units 4-6)	Nov 12/13	100	
2 IAN Checks @ 80 points each	IAN Check #1	Oct 8/9	80	
	IAN Check #2	Dec 12	80	
8 Unit Quizzes @ 25 points each	Unit 1 Quiz	Sept 1/2	25	
	Unit 2 Quiz	Sept 15/16	25	
	Unit 3 Quiz	Sept 22/23	25	
	Unit 4 Quiz	Oct 8/9	25	
	Unit 5 Quiz	Oct 24	25	
	Unit 6 Quiz	Nov 7	25	
	Unit 7 Quiz	Nov 24/25	25	
	Unit 8 Quiz	Dec 10/11	25	
8 Labs @ 15 points each	Unit 1 Lab: Physical vs. Chemical		15	
	Unit 2 Lab: Mass, Volume & Density		15	
	Unit 3 Lab: Isotopes		15	
	Unit 4 Lab: Flame Tests		15	
	Unit 5 Lab: Periodic Law		15	
	Unit 6 Lab: VSEPR		15	
	Unit 7 Lab: % Comp and Formulas		15	
	Unit 8 Lab: Chemical Reactions		15	
8 Class Quizzes @ 15 points each			15	
			15	
			15	
			15	
			15	
			15	
			15	
			15	
Final Exam @ 200 points	Final Exam including Semester Project		200	

TOTAL POINTS EARNED:

Letter Grade	Points Earned
A	≥ 895
B	795 – 894
C	745 – 794
D	695 – 744
F	< 695