Course Syllabus

Course Title:	Advance Placement Chemistry
Course Location:	F203
Instructor:	Chad Kleinschmidt – chad.kleinschmidt@fwcs.k12.in.us
Course Description:	The AP Chemistry class meets 5 times a week for 55 minutes. Roughly 2 out of every 10 days will be geared towards laboratory time. This is a second year chemistry course and as such students should have previous knowledge of molar relationships, molecular structure and bonding, and gas laws. The course emphasizes the understanding of concepts and also the application of skills to solve critical thinking problems. Homework, quizzes, and tests emphasize problem solving that require students to apply concepts to solve relevant, real-world problems. Students also work in groups to solve open ended questions that involve the physical and chemical world they live in.

Textbook & Materials

Textbook Title:	Brown, Theodore L.,et al. "Chemistry: The Central Science". 12th ed.
Materials	Required materials include: Textbook, lab notebook (composition notebook) Recommended materials include: scientific calculator and a 3-ring binder.
Assessment	***As per FWCS policy 80% of a students grade will be based upon *summative* assessments and 20% will be based on *formative* assessments. To generalize *summative* assessments will include tests and labs. *Formative* assessments would include homework and quizzes.**

Grading Scale

A+	98-100	B+	90-92	C+	81-83	D+	73-74
A	95-97	B	86-89	C	77-80	D	71-72
A-	93-94	B-	84-85	C-	75-76	D-	70
						F	Below 69

12=A+ 11=A- 10=A 9=B+ 8=B 7=B- 6=C+ 5=C 4=C- 3=D+ 2=D 1=D- 0=F

Exams	This class will consist of 5-7 exams for the duration of the year. Exams will consist of multiple choice questions and free-response questions which is consistent with the AP exam.
Homework/Quizzes	Homework and quizzes will be a means for students to check their understanding of a topic that is being discussed in class. It is highly recommended that students complete homework as data shows, students who practice more do better on retaining information. It is also recommended that students read each chapter that is being discussed in class. This is meant as a college course and many professors expect the same.

Labs

The chemistry laboratory is the place where students learn about the behavior of matter by firsthand observation. The observations students make may be in marked contrast of preconceived motions of what "should happen" according to textbooks or theoretical models. Students should be able to do the following:

- Think critically and analytically to solve real world problems
- Design and carry out experiments that answer questions
- Manipulate data acquired during an experiment
- Draw conclusions and evaluate the validity of those conclusions
- Communicate accurately and meaningfully with peers

Lab Notebook

Each student should have a lab notebook. Composition notebooks from Wal-Mart or Target etc. are fine. Students will be required to submit complete lab reports for each lab experiment. These will include a hypothesis, procedure, observations/data, calculations and a conclusion (more info on the setup of this will be distributed). Lab notebooks will be graded at the midpoint and end of each quarter. Students must have all labs for that quarter completed to be able to receive full credit.

Schedule

Unit	Unit Title	Chapters	Length
1	Calculations and Measurements	1	1.0 week
2	Atomic Theory and Structure	2	1.5 weeks
3	Stoichiometry	3	3.0 weeks
4	Reaction Types	4,20	2.5 weeks
5	Chemical Bonding & Periodicity	6,7,8,9	3.0 weeks
6	Gases	10	2.5 weeks
7	Liquids and Solids	11,12	2.0 weeks
8	Thermodynamics	5,19	3.5 weeks
9	Solutions	13	3.0 weeks
10	Kinetics	14	3.0 weeks
11	Equilibrium	15,16,17	3.5 weeks
12	Nuclear Chemistry	21	0.5 weeks
13	AP Exam Review		3.0 weeks

Lab Schedule

Unit	Laboratory Title
1	None
2	Flame Tests for Metals Electron Configuration & The Properties of Matter
3	Empirical Formula of Copper Iodide Synthesis of Aspirin
4	Determination of Concentration by Redox Titration
5	Periodicity Data Analysis Molecular Geometry
6	Determination of a Molar Volume of a Gas
7	Demos Only
8	Real World Heats of Reaction Determination of Equilibrium Constants
9	Determination of Molar Mass by Freezing Point Depression
10	Bleach Reaction Kinetics
11	Determining Concentration Through Acid-Base Titration Thiosulfate Decomposition
12	None
13	Lab Practical