Science Success Strategies, CH100, Tentative Syllabus

Requirements: This class is designed for college students who have limited or no prior exposure to chemistry. Completion of or concurrent enrollment in MA104 is necessary.

Goals: The objective of this class is to help each student develop the skills necessary to be successful in the further study of sciences (specifically chemistry) and, hopefully, mathematics. Since mathematics is the language of science, we will focus on making the connections between the abstract mathematical language often used in mathematics classes and the applied language most often used in science classes. Although the traditional view of science and mathematics education often utilizes the lecture method, we believe there is a place for alternative methods. In this class, teaching and learning will occur through lecture, small group work, discussion, and laboratory activities. In addition to presenting domain specific content that we feel is essential for successful study of the sciences, we will offer some suggestions for how to study and prepare for classes in the sciences and mathematics. We are excited about this opportunity to introduce you to the wonderful world of science and mathematics. We hope this is the beginning of an exciting and life long journey. The study of science and mathematics demands an intense commitment, but we believe it is worth the effort

Expectations: Our view is that this course is a team effort, so your participation on a daily basis is fundamental to its success. In general, regular and active participation in class is a necessary component of successful study in the sciences and mathematics. Therefore 10% of the grade for this course is based on attendance and active participation in the class activities.

Other components of success are taking notes during class, reviewing these notes after class and composing questions from them. Similarly, taking notes or writing down questions from the reading assignments and homework is important. These notes should be easily accessible for future reference. It is important to stay organized, with easy reference to your notes, worksheets, graded homework assignments and quizzes. Maintain a class folder. Five percent of your grade will be based on the completeness and organization of this folder.

Learning requires action. Success in the sciences and mathematics demands both group and individual effort. Therefore on a daily basis there will be both in class activities and homework assignments that are to be completed by each individual. We will grade and return your homework and ask you to redo the problems which were done incorrectly on the original assignment. If your homework is handed in on time, its grade will be an average of the scores on the first and second submission of each assignment. You will complete laboratory experiments during the course. A written report will be required at the completion of each experiment. We will discuss the form and style of these reports after you have had the opportunity to complete an experiment. The homework, including lab write-ups will be 35% of your grade.

The individual in class activities will include quizzes, short writing assignments. The quiz grade will be based on average of the score on the original quiz and the score on the corrected quiz. As with the homework assignments, you will have the opportunity to correct and resubmit your quiz for a second grade. These will be 30% of your grade.

The in class final exam will make up the remaining 20% of your grade. You will be allowed to use your hand-written class notes during the final.

Required Material: A graphing calculator is required for MA116. Therefore, you may as well have one ready for this class so we may introduce some of its relevant applications to the sciences.

The text for this course is *Introductory Chemistry FlexText* by Peters and Cracolice. Material from the text will be tailored to fit the needs of the class. Not all of the text will be relevant for this class; however, even unused material will be useful in your further scientific pursuits. Save the sections not covered by this course in another binder (folder). Develop a working binder of the text material that will be used this semester. From the packet of FlexText material, place the following sections in that binder in the indicated order:

Introduction
C Measurement and Chemical Calculations
G The Gas Laws
F Chemical Formula/Mass
A Atomic Theory: The Nuclear Model of the Atom
N Chemical Nomenclature
R Reactions and Equations
H Quantitative Relationships in Chemical Reactions
I Ideal Gas Law
S Solutions (omit optional sections)
Z Net Ionic Equations
Appendix I & II
Glossary
Index

Summary of the Evaluation:		Grade Distribution:
Participation	10%	100% - 90% = A
Notebook	5%	89% - 80% = B
Homework:	35%	79% - 70% = C
Quizzes:	30%	69% - 60% = D
Final:	20%	59% - 0% = F

Office Hours: Dr. LaLonde
To arrange a meeting please call extension 1108
or email at zzlalo@washburn.edu

Scheduled Office Hours: Dr. Angel
M: 11-12; T: 10-12; W: 4-5; R:4:30-5:30; F: 8-9
You may also prearrange meetings outside these scheduled office hours.
email: stephen.angel@washburn.edu; telephone: 231-1010x2266