CHEMISTRY 111 TLC

Canisius College **General Chemistry** **Fall Semester 2004**

Instructor: ☺ Dr. Mariusz Kozik ☺, SB 204, ☎ 888-2337; Kozik@Canisius.edu

Office Hours: ⌚ M, 1:30-2:30; T 12-1; W 1:30-2:30; R 10:30-12; and by appointments. ***Extended*** office hours will be announced on the exam weeks.

Objectives: The course is designed to provide science majors with a solid foundation in the ***principles of chemistry***, with the ***emphasis on problem solving*** and ***working in teams***. The course also demonstrates how chemistry is involved in the real world and often features its importance in everyday life.

Required Text: "Chemistry The Central Science" by T.L. Brown et al, ninth edition, 2003; and "Solutions to Red Exercises".

Course Organization

The course will be taught in an active learning fashion. Students will be divided into 4-5 person teams. These teams will work together in class on problems related to the material assigned by the instructor by means of the so-called learning guides. The learning guides will specify in details the material that needs to be prepared for each class. In every class, each student will be given a set of "ChemDo" problems designed to bring out the main points in the learning guide for that class. Teams of students will work together to complete the ChemDo's during the class. The instructor will be available for help with the ChemDo's. Each class will end with a short 5-minute reading quiz which will focus on points drawn from the learning guide for that class. Students will be allowed to use their learning guides during the reading quiz. After a serious of ChemDo's for a given chapter is completed in class, the instructor will review the most difficult parts of the ChemDo's during the recitation, and the answers to the ChemDo's will be made on the class web page. ***The team members will evaluate the contribution of individual students to team work by a peer evaluation process.***

Peer Evaluation

Students will evaluate the performance of the other members of their team twice during the semester. The first peer evaluation will take place after the first month of classes, and the second, near the end of the semester. Peer evaluations will be based on ten-point scale and they are explained in detail on the peer evaluation form.

Homework

Homework will be assigned regularly as a part of the learning guides, but it will ***not*** be collected. Students are strongly encouraged to work on the homework problems and list their solutions on the back of the learning guides. Solutions to all homework problems can be found in the Solution Manual.

Attendance

Attendance ***is required*** at all class and recitation sessions since a student must be present to help or receive help from his/her group. A written medical or legal excuse will be required for any class absences. It is also important that all students arrive for class on time.

Tests

Three hourly tests will be given during the following recitation periods.

Test	Date	Material to be covered
1	Sept. 30	Chapters 1-3
2	Oct. 28	Chapters 4-7
3	Dec. 2	Chapters 8-10

The final exam will be cumulative. It will cover chapters 1-11 and 25. No written materials are allowed during the hourly tests and the final exam.

Grading

All grading will be conducted on an absolute grade scale. This means that one person's grade can not influence another's. Therefore, it is possible for everyone in this class to receive a grade of A, B, C, etc. Reading Quiz grades from a given chapter will be combined into one grade. Each hourly test and reading quiz average will count 15% of the final grade. The final exam grade will count 25%, and the peer evaluation grade - 10%. One paper based on an interdisciplinary talk during one of the recitations will count 5%. There will be certain awards for students with a high peer evaluation grade. Students with the PE grade higher than 85% will have their lowest quiz grade dropped and students with the PE grade higher than 92% will have two lowest quiz grades dropped. In addition, any student scoring a higher grade on the final examination than on one of the three hourly examinations, will be allowed to replace that hourly exam's grade with the final exam grade.

The numerical grade ranges corresponding to letter grades that will be used in this course are approximately as follows:

A - 92%	B^+ - 82%	B^- - 74%	C - 64%	D - 50%
A^- - 88%	B - 78%	C^+ - 68%	C^- - 60%	F - <50%

In addition, in order to pass the course, a student must receive at least 46% average individual grade.

Final Comments

I sincerely hope that you will find the active team learning approach supplemented by the weekly lectures beneficial to your learning of chemistry. I also hope that with your help I can fine tune this method of learning to make it as much fun for all of us as possible. ***Any comments and/or suggestions concerning course improvements will be appreciated!***

Additional Important Note

If you have any condition, such as a physical or mental disability, which will make it difficult for you to carry out the work as I have outlined it or which will require extra time on examinations, please notify me in the first two weeks of the course so that we may make appropriate arrangements!