

**Chemistry 3710L Lab Rybolt - Introduction to Physical Chemistry I Laboratory****First Two Weeks – starting lab****Week One**

Molecular Mechanics Tutorial—Do Appendix Tutorial and Modeling assignment. Turn in at start of next lab.

**Week Two** - to discuss with students

- 1) Bring lab manual (print from website), Rybolt 3710L Lab handouts, calculator, bound notebook, and goggles.
- 2) Go through Lab Manual (Introduction, Experiments, and Appendices) and discuss details.
- 3) Go through Rybolt 3710L Lab handouts and discuss details.
- 4) Discuss safety rules, chemical hygiene plan, waste disposal, point out lab safety features and collect signed safety sheets.
- 5) Discuss balances and lab cleanliness.
- 6) Point out location of chemicals for experiments.
- 7) Indicate location of experiments.  
The experiment locations are indicated by cards on benches or labels on drawers.
- 8) Go over use of interface devices
- 9) Go over computer usage this semester.
- 10) Assign partners and go over schedule.
- 11) Make assignments for today and coming week.

**STUDENTS TO DO**

Do Data Analysis Assignment (Hand and Excel linear regression, Sig Fig. and Factor Unit Problems- Turn in at start of next lab.

Initial Work for first experiment (do today)

AS use of computer interface to measure absorbance

EX use of computer interface, calculate how to make solutions, ready resistance heater

FP use of computer interface, make up test tubes and label

HV use of computer interface, how to read barometric pressure

IS how to use polarimeter, clean water bath, set up polarimeter tube (caution it is fragile)

LV how to use refractometer, and understand experiment set-up

ME how to use CAChe (Scigress), understand expt

MM how to use CAChe (Scigress), understand expt

RO how to use automated polarimeter,

SM how to use uv/vis spectrophotometer, how to use CAChe (Scigress)

make sure you are well prepared to start your lab work next week

**Handouts with Assignments or Information** (separate from lab manual but on Rybolt website)

Introduction to Physical Chemistry Laboratory

First Two weeks Activities and Topics

List of Information and Assignment Handouts

Student Information

Schedule for Semester

Introduction to Molecular Modeling: Tutorial and Practice (to turn in)

Linear Regression, Excel Directions, and Sample Figure

Data Analysis Assignment (to turn in)

Policy Statement and Directions for Lab Reports

**371 Lab Rybolt Student Information**

Name (first and last) you are called \_\_\_\_\_

Major and degree seeking \_\_\_\_\_

Year started at UTC \_\_\_\_\_ Currently Jr or Sr or post grad

Expect to graduate after what semester/year \_\_\_\_\_

Currently working anywhere \_\_\_\_\_ hours per week \_\_\_\_\_

Job or career plans after you graduate \_\_\_\_\_

\_\_\_\_\_

Interests other than Chemistry and work \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**371 Lab Rybolt – Schedule Fall 2009** 371-501 Wednesday 2:00 – 4:50 CANX

Date/Exp	AS	EX	FP	HV	IS	LV	ME	MM	RO	SM
Aug 19	----- no lab -----									
26	CACHe (Scigress) tutorial and problems									
Sep 2	Introduction, Safety, Graphing/regression/math exercise, Prep for first expt									
9	0	1	2	3	4	5	6	7	8	9
16 *	9	0	1	2	3	4	5	6	7	8
23	8	9	0	1	2	3	4	5	6	7
30 *	7	8	9	0	1	2	3	4	5	6
Oct 7	6	7	8	9	0	1	2	3	4	5
14 *	5	6	7	8	9	0	1	2	3	4
21	4	5	6	7	8	9	0	1	2	3
28 *	3	4	5	6	7	8	9	0	1	2
Nov 4	2	3	4	5	6	7	8	9	0	1
11 *	1	2	3	4	5	6	7	8	9	0
18	make-up lab (one lab that you have not completed may be done this day)									
24 (Tu)*	all labs due by 4:00PM (hand to me – or slide under my office door)									
25	----- UTC holiday -----									

**\* Lab reports due on these days. You must follow the required format or lab reports will not be accepted. Any lab report that is not complete or not done in a careful and professional manner will receive a F. No late lab reports (5 minutes after official start time) accepted.**  
 --One **Make-up lab** (not due till end of semester) is allowed once during semester, but it cannot be your first report. To have lab count as Make-up lab on due date of report give me a piece of paper with two letter code, date, your name, and statement, “ this is my one make-up lab.”

**Group Numbers and Names**

0	-
1	-
2	-
3	-
4	-
5	-
6	-
7	-
8	-
9	-