CHM 2046L - SYLLABUS UNIVERSITY OF FLORIDA FALL, 2013

Course Administrator:Dr. James C. Horvath (horvath@chem.ufl.edu)LEI 132Laboratory Manager:Ms. Donna Turner (donnat@chem.ufl.edu)LEI 136-138Evening Lab Manager:Ms. Candace Schwartz (ccschwartz@chem.ufl.edu)LEI 136-138

<u>To the student:</u> READ AND RETAIN THIS SYLLABUS! It contains details pertinent to CHM 2046L. YOU ARE RESPONSIBLE FOR THIS INFORMATION! READ IT CAREFULLY! Ignorance is <u>NOT</u> an excuse!

<u>Students With Disabilities:</u> Students needing special accommodations in CHM 2046L must register with the Disability Resource Center (001 Reid Hall) to get documentation for Dr. Horvath to obtain the accommodations.

Corequisite: CHM 2046L is to be taken with CHM 2046 or CHM 2051 (Honors).

Prerequisite: Before enrolling in CHM 2046L (and CHM 2046) both CHM 2045 and CHM 2045L must have been passed.

<u>E Learning (EL on Sakai):</u> EL (Sakai) is used for grade maintenance, message-posting, etc. Login to EL using your GatorLink ID and password at: <u>Lss.at.ufl.edu</u> <u>IT IS YOUR RESPONSIBILITY TO CHECK EL REGULARLY FOR INFORMATION & MESSAGES REGARDING CHM 2046L.</u>

<u>Beginning the Term (Read Carefully!):</u> CHM 2046L begins M: 8/26/13 - F: 8/30/13. On these days all 46L sections check in and get going with Assignment 1 in the CHM 2046L Lab Manual. <u>TO GET STARTED PROPERLY ANSWER Q 1.1 ON PAGE 1-11 IN ASSIGNMENT 1 BEFORE YOU ARRIVE FOR CHECK IN.</u>

ATTEND YOUR FIRST SCHEDULED LAB SESSION (LS). YOUR 46L SPACE CAN BE LOST BY NON-ATTENDANCE.

<u>During the Term (Read Carefully)</u>: There are no regular LSs on: M: 9/2/13 (Labor Day); F: 11/8/13 (Homecoming); M: 11/11/13 (Veteran's Day); and, T: 11/26/13 - F: 11/29/13 (Turkey Days).

Note: M Sects in essence "make up" for Labor Day on M: 11/25/13 and Veterans Day on M: 12/2/13.

<u>F Sects Makeup ★:</u> Sect. 6121 (F2-4) meets T:11/26/13 pers 2-4. Sect. 6124 (F5-7) meets T:11/26/13 pers 5-7. Sect. 6322 (F8-10) meets T:11/26/13 pers 8-10.

★If you are a Friday (F) student with a schedule that prevents you from meeting with the above makeup arrangement please see the Stockroom Personnel to schedule an individual makeup (or makeups). See below at "Makeup Lab".

The above schedule gives each 2046L section the maximum allotment of 13 LSs for the term.

<u>Required Equipment:</u> Each listed item is to be in your possession at the <u>first</u> LS and will be used in all other LSs. See that you have these items.

- 1. CHM 2046L Lab Manual. "Chemistry for Laboratory II" by Horvath, <u>3RD* or 4TH</u> Ed. Get at UF or other local bookstore. New manual required if you are repeating this course. ★3RD Ed users will receive supplemental handouts pertaining to 4th Ed in order to have updated 4th Ed Lab info. The handouts will be issued in Lab.
- 2. Chem. Dept. approved eye protection. UVEX S2500-S2530 plastic safety glasses (available at UF or Florida Bookstore) or full safety goggles <u>must</u> be used as these can cover prescription glasses. <u>NO</u> EXCEPTIONS. Also, avoid the use of contact lenses in the lab.
- 3. Towel and sponge (for clean up).
- 4. Ball pen (nonerasable!). All entries in the Lab Manual must be made in indelible ink. NO pencil. EVER!
- 5. "Sharpie" permanent felt-tip glass marking pen.
- 6. Lab apron (optional). You are urged to protect your person and clothing by wearing an apron in Lab.

<u>Safety & Clean-Up:</u> See GENERAL CHEMISTRY LABORATORY REGULATIONS (GCLR). Students may <u>not</u> work in the Lab without complete compliance with these rules. (You will receive a copy of the GCLR in your first LS.)

- 1. EYE PROTECTION must be worn on entering, working in, & leaving lab. NO EXCEPTIONS. (See GCLR.)
- 2. Complete lace-up shoes (not sandals, thongs, etc.) are required Lab footwear. (See GCLR.)
- 3. Long hair is to be appropriately constrained. Hair is very flammable!
- 4. Full-length JEANS (other leg attire not acceptable in Lab) are required for both males and females.
- 5. No visitors or browsers are permitted in the Lab.
- 6. Note location of fire extinguisher, overhead shower, and eyewash station. Use safety devices as necessary!
- 7. NO EATING, DRINKING, OR SMOKING PERMITTED IN THE LAB AT ANY TIME.
- 8. Use only required amounts of chemicals. <u>NEVER</u> return unused portions to original container. Use supplies <u>ONLY</u> from your Lab Area. As necessary get additional supplies at Stockwindow <u>NOT</u> another Lab Area.
- 9. <u>CLEAN UP ANY MESS YOU MAKE</u>. Discard waste materials appropriately consult instructor if you have questions. <u>CLEAN YOUR WORK AREA AT CONCLUSION OF EACH LS</u>. PENALTIES <u>WILL</u> BE APPLIED FOR FAILURE TO CLEAN UP PROPERLY! (See "HOUSEKEEPING" in GCLR.)
- 10. Do not leave lit burners unattended. Extinguish burner after use.
- 11. Perform NO unauthorized experiments!

<u>Cell Phone Use:</u> Turn <u>OFF</u> cell phones during Lab. Use of cell phone during Lab costs 10 pts from Subjective Grade (SG) per call up to three calls at which SG becomes zero. If you may receive an emergency call, tell your TA and, if the call comes, step out of Lab during the call.

Attendance: THE STUDENT IS EXPECTED TO BE ON TIME FOR EACH SCHEDULED LS AND WORK THE ENTIRE LS UNTIL ALL WORK ASSIGNED FOR THE TERM HAS BEEN COMPLETED. There is ample time during LSs to do all required as well as extra credit work including limited repeat work (excluding unknown analysis – unknown analysis may be repeated only by approval of Dr. Horvath).

Work in Lab is permitted ONLY during the scheduled LS for which student is enrolled. (Authorized makeup is the only exception -- see p. 3 at "Makeups".) Moreover, students may not work until their TA arrives and must finish work, CLEAN UP, and leave Lab by the end of the LS. Clean up during last 10 m inutes of 3rd Lab period. (See GCLR.)

NOTE: REGARDLESS OF UF SCHEDULE, pers 11-E2 LSs END AT 9:15 pm. Thus, ALL 46L SECTS HAVE 3-hour LSs.

<u>Preparation</u>: Preparation prior to each Assignment is required. This means pre-read entire Assignment with emphasis on understanding Discussion in the Lab Manual. Almost all 46L work is done in Lab. Exceptions are "Problems" (Ps) and preparation of Schemes for Unknown Analysis. *Ps and Unknown Schemes are homework*. <u>Note:</u> Solutions to all Ps <u>except</u>: P1.1, 1.2, Unknown Schemes, and Ps for Assignments 10 and 11, are posted so that you can check your own Ps. <u>P solutions are posted on the 46L bulletin boards (outside east wall of CLB C130 & next to LEI 224).</u>

<u>Deadlines:</u> Experiment work for Assignment 1 (see ★ below) should be completed during LS 1 following check in. Thereafter, beginning with Assignment 2, all work is "self pace" (<u>EXCEPT FOR UNKNOWN ANALYSIS!</u>). <u>NOTE:</u> You must work expeditiously to be successful with all CHM 2046L work. Your 46L TA (Teaching Assistant) will indicate the approximate number of LSs required to complete each Assignment.

★ The "Experiment" for Assignment 1 may be done in teams of two. This is permitted because many solutions must be prepared for this work. But, after Assignment 1, <u>NO</u> teamwork in 46L is permitted. <u>NO EXCEPTIONS!</u>

The Experiment (E) and Problems (P) for an Assignment (A) are due at the start of the LS after completing E for the corresponding A. For instance, since the E for A2 should be completed within three LSs, the E and P for A2 should be turned in for final grading at the start of LS 4. Similarly, if the E for A3 is completed at some time during LS 5, the E and P for A3 are to be turned in no later than the start of LS 6. Late work is devalued "10% per day late" up to one week late.

Zero credit for any work later than one week. (To turn in work carefully remove E & P pages at the perforation in the Lab Manual. Staple E & P pages together in sequence and give to your TA. When graded work is returned, repaginate it into your Lab Manual kept in a 3-ring binder.) NOTE: Work may be turned in at the Lab Stockwindow (but NOT during the last LS). But, all work SHOULD be turned in directly to your TA. IF YOU MISS LAB, WORK MUST STILL BE TURNED IN "ON TIME"! Work may NEVER be turned in via Chem. Dept. mail -- NO EXCEPTIONS! Ask your TA for instructions on turning in work outside of Lab.

<u>In general, do each A in the sequence contained in the Lab Manual.</u> (See "★ EXCEPTION" below.) Required work is A's 1-9 and corresponding Unknown Analysis. Successful work done for A10 & A11 will earn extra credit (XC).

* EXCEPTION: Unknown analysis may NOT be carried beyond the LS in which the analysis was begun. (An unknown analysis MUST be completed and the UNKNOWN REPORT turned in AT THE STOCKWINDOW during the LS in which the analysis was begun.) Thus, on occasion, it is wise to delay unknown analysis until the next LS. This will insure having full time for the analysis. In such a case, at the time of delay the student proceeds to the next A. BUT NOTE:
A PENALTY CAN APPLY TO UNKNOWN ANALYSIS DELAY - specifically: STARTING WORK IN A6 PRIOR TO 2A/B
ANALYSIS COSTS 25 PTS TO GET 2A/B UNKNOWNS. STARTING WORK IN A8 PRIOR TO 5A/B ANALYSIS COSTS 25
PTS TO GET 5A/B UNKNOWNS. NO EXCEPTIONS - MAKEUPS INCLUDED. STOCKROOM PERSONNEL WILL CHECK LAB MANUALS TO ENSURE STUDENT COMPLIANCE. Keep pace! Be careful in opting to delay unknown analysis!

Note: YOU ARE STRICTLY "ON YOUR OWN" FOR UNKNOWN ANALYSIS. No one including your TA may offer help for unknown analysis. Stockroom personnel <u>exclusively</u> write start and stop times on the UNKNOWN REPORT.

Grading (subject to change!). Values indicated are maximum earnable points:

Assign(A).	Exp.	Probs.	Scheme [*]	Unknown (A/B)) TIME LIMIT
One	25	10			
Two	50	5	20 (P 2.9)	100/100	90 min. for the pair
Three	30	5			
Four	25	5			
Five		5	20(P 5.11)	100**/100	120 min. for the pair
Six	30	5			
Seven	25	5			
Eight	20	5			
Nine		5	20(P 9.6)	100 ^{**} /100	120 m in. for the pair
Ten***	25(XC)	5(XC)	10(XC)(P 10.5)	50(XC)****	45 min.
Eleven***	` ´	5(XC)	15(XC) (P 11.5)	60(XC)****	90 min.
Totals:	230	60	85		ote: 2-pt. penalty per minute late!

- **★** TA-approved, "non-xeroxed" Scheme of Analysis <u>must</u> be presented at Stockwindow to obtain unknowns 2A/B, 5A/B, & 9A/B. <u>Obtaining a 2A/B, 5A/B, and/or 9A/B sample without approved Scheme costs 25 pts!</u>
 - "Unk nown A" is in the sample package with the numerical label.
- ★★ <u>Unknown samples 5A and 9A are guaranteed pure salts</u> (i.e., samples 5A and 9A are not mixtures). But, don't forget the possibility of "alums". Also beware of "oxides" (for 5A, 9A, & 11A) and "sulfides" (for 9A & 11A).
- *** Acceptable work done in A's 10 & 11 will earn extra credit (XC).
- *** For A10 Unknown report ONLY cations (sample contains 3). For A10 Unknown: 1 error = ½-credit (25 pts); 2 errors = zero credit; 3 (or more) errors = -25 pts. DON'T GUESS!
- **** For A11 Unknown NOTE: Sample is a guaranteed mixture. And 4 (or more) errors = -25 pts. DON'T GUESS!

ON UNKNOWN GRADING: EACH ERROR ("omission" – an ion in the sample is not reported; or, "commission" – an ion reported is <u>not</u> in the sample) COUNTS AGAINST YOU. Also, regardless of no. of corrections, 6 or more errors = ZERO.

- YOU <u>MUST</u> DO THE LAB WORK REQUIRED BY CHM 2046L TO BE SUCCESSFUL. SO NOTE THE "OK" CHECKPOINTS IN THE LAB MANUAL. NO WORK MAY PROCEED PAST AN "OK" WITHOUT TA APPROVAL <u>THUS, YOU MUST PRESENT YOUR LAB MANUAL</u> TO YOUR TA FOR INSPECTION AT THE BEGINNING AND END OF EACH LS. NONCOMPLIANCE WITH THIS POLICY RESULTS IN <u>ZERO CREDIT FOR ALL NON-"OK'd" WORK.</u> AND, ACTUAL EXPERIMENT RESULTS MUST BE PRESENTED TO YOUR TA TO <u>OBTAIN OK APPROVAL.</u> OK'S WILL NOT BE ISSUED WITHOUT PROOF THAT YOU DID THE WORK!
- FORGING TA'S "OK" or "DRY-LABBING" is CHEATING! PENALTY IS AUTOMATIC GRADE OF "E".
- SEVERE PENALTIES ARE APPLIED FOR COPYING WORK FROM OTHER STUDENTS. ALL PARTIES INVOLVED ARE PENALIZED. 1st violation: ZERO CREDIT FOR COPIED WORK & 100-POINT ADDITIONAL PENALTY. 2nd violation: GRADE OF "E".
- POSSESSION OF LABORATORY WORK FROM OTHER STUDENTS RESULTS IN AUTOMATIC GRADE OF "E". NO EXCEPTIONS. BOOKBAGS, NOTEBOOKS, BACK PACKS, etc., WILL BE INSPECTED REGARDING THIS ISSUE. Also, CALCULATORS ARE NOT PERMITTED (because they are no longer necessary) FOLLOWING A3.
- LAB SUPPLIES and EQUIPMENT MAY <u>NOT</u> BE REMOVED FROM THE LAB FOR ANY REASON (other than to submit unknown samples to Dr. Horvath for regrade). <u>NO EXCEPTIONS.</u> MINIMUM PENALTY IS GRADE OF "E".
- SUBMISSION of CONTAMINATED or "SPIKED" UNKNOWN SAMPLE for REGRADE IS AN ACT OF ACADEMIC DISHONESTY.

 <u>MINIMUM PENALTY IS GRADE OF "E".</u>

More Information on Student Honesty: UF's policy on honesty and cheating can be seen at the following web site:
www.chem.ufl.edu~itl/honor.html All students should visit this site and read the information which it offers.

<u>Subjective Grade (SG) by TA:</u> The SG is a 50-point max character-assessment grade which depends mainly on factors such as preparedness, diligence, improvement, neatness, and demonstrated interest in the work. The SG is separate from Assignment and Unknown grades. If you simply meet minimum requirements as a 2046L student – but no more – your demonstration of character is average and your SG will be ~30-35 pts. <u>YOU MUST EXCEL to be EXCELLENT!</u>

CHM 2046L Course/TA Evaluation: This eval will be conducted AT THE START of LS 12. All students are to participate.

<u>Checkout & Last LS:</u> Students may work during the first 90 minutes (absolute maximum) of LS 13. NOTE THAT IF YOU ARE DOING UNKNOWN ANALYSIS IN LS 13, SAMPLES WILL <u>NOT</u> BE ISSUED AFTER THE FIRST 30 MINUTES OF THE LS. NO EXCEPTIONS. At the 90-minute mark work ceases and students clean up and check out.

The following paragraph also applies to checkout. READ IT!

All students checked into a 46L Lab locker must check out. So note, if you leave 46L before the end of the term by drop, withdrawal, or "I" grade, you must still check out. If you do not, the Lab Staff will check out your locker and you <u>WILL</u> be billed for all equipment which must be replaced. <u>Students completing 46L must check out in (or before) LS 13.</u>

<u>Final Exam:</u> The Final is a min. 120-pt exam and is T: 12/10/13, 3:00 - 5:00 pm (Exam Group 10D), at a location to be announced. If you are taking the exam but have a conflict with the schedule you must see Dr. Horvath <u>in person during the last week of class</u> in LEI 132 to arrange a makeup. Qs & Ps on the exam relate to understanding work done in A's 1 - 9. Extra credit can also be earned on the exam. <u>A solution key to a past 2046L Final Exam is available on Sakai.</u>

<u>Course Grade</u>: The CHM 2046L grade is based on total points earned (<u>not %'s – IGNORE "OUT OF" VALUES IN SAKAI</u>) including XC points (see below). <u>Note: Without XC</u> work in A's 10 & 11 the following totals can be earned: 915 (Exps., Probs. Schemes, Unknowns for Assignments 1-9) + 50 (max SG) + 120 (Final) = 1085.

The following grade scale then <u>rigidly</u> applies:

A: 900 or up B+: 850-874 B-: 800-824 C: 700-749 D+: 650-674 D-: 550-599
A-: 875-899 B: 825-849 C+: 750-799 C-: 675-699 D: 600-649 E: below 550

I Grade: An I grade can be issued only if the requesting student meets with each of the following requirements:

- (i) At least 50 % of the course work (this means thru 5 A/B unknown analysis) has been successfully completed.
- (ii) Student is passing (grade \geq D-) at time of request.
- (iii) Student has legitimate reason for not completing course (e.g., serious illness, accident, etc.).

A student receiving an "I" must still check out. "I" grades must be discussed with Dr. Horvath. NO exceptions.

<u>Makeup Lab:</u> A student missing an LS for <u>legitimate</u> cause (excusable absence) may request a makeup lab. The student initiates the process by obtaining a Lab Makeup Form at the Lab Stockwindow and by following the instructions on the Makeup Form. <u>Note:</u>

- A MAKEUP LAB MUST BE SCHEDULED IMMEDIATELY ON RETURN TO 2046L AFTER AN EXCUSED ABSENCE. FAILURE TO DO THIS WITHIN A WEEK AFTER RETURNING TO 2046L RESULTS IN GRANT OF NO MAKEUP.
- Makeups will be scheduled solely at the discretion of Donna Turner or Candace Schwartz (Lab Managers.). TAs may
 <u>NOT</u> schedule makeups. Makeup MUST be done at date, period, and work space designated on Makeup Form.
 <u>Noncompliance with this policy results in zero credit as a minimum penalty for work made up.</u>
- For questions on makeup scheduling see Donna Turner or Candace Schwartz (Lab Managers). Do <u>NOT</u> contact Dr. Horvath about makeup <u>unless</u> absolutely necessary and, <u>only in person!</u>
- One makeup max will be scheduled per week. NO EXCEPTIONS unless approved by Ms. Turner or Dr. Horvath.
- For <u>each</u> make up a Makeup Form must be approved by your regular Lab TA's signature. On completion of make up, the Makeup Form <u>and</u> the make-up work <u>must</u> be turned in to your regular TA. Makeup work submitted for grading without the appropriately signed Makeup Form will <u>NOT</u> be accepted. Makeup work <u>NOT</u> OK'd by the makeup TA will be treated as a cheating offense. <u>Penalty is "E" grade!</u>
- Makeups are issued only to replace LSs missed for excusable absence. Each 2046L student is entitled to a maximum of 13 working LSs for Fall Term *INCLUDING* makeup.

<u>UNKNOWN ANALYSIS & Makeup:</u> <u>Doing unknown analysis during a Makeup Lab requires that you print the name of your regular Lab TA on the UNKNOWN REPORT right after "Instructor Initial".</u> This is necessary in order to return the graded Unknown Report to your TA and you.

Assembly Exam & Makeup: Students with evening Lab (pers 11-E2) may have to take assembly exams which begin at 8:20 pm. <u>Each such student is to request a makeup for the exam from the professor giving the exam</u> -- however, if this request is not granted, the student <u>must attend Lab on the day of the exam until 8:00 p.m.</u> After two assembly exams the student will be granted a full (3 hr) makeup. For any single assembly exam the student will be granted a half makeup (90 mins). Questions regarding this policy are to be asked at the Stockwindow.

STUDENTS OPTING TO MISS LAB FOR AN EXAM RECEIVE A "ZERO" FOR THE MISSED WORK. NO EXCEPTIONS!

ATTENDANCE REMINDER & MAKEUP: Makeup space in 2046L is at a premium. Because of this vacated Lab space will be used for makeup. So note that if you miss three consecutive LSs and still intend to return to 2046L it is your duty to contact the Lab Manager (Ms. Turner) via email at: donnat@chem.ufl.edu in order to keep your space. If you fail to do this after missing three consecutive LSs your space will be considered vacated and consequently used for makeup.

Out-of-Class Help: Out-of-class help for Gen Chem students will be provided on a regular daily basis in the Chem istry Learning Center (CLC) which is FLI 257. (Do NOT eat, drink, or socialize in the CLC.) All Gen Chem TAs conduct their office periods in CLC. So, note your TA's office periods, and, if you need out-of-class help but cannot contact your TA, you may request help from any 2046L TA who is on duty in the CLC. A help-schedule will be posted and help should be available M-R: pers 2-E1 and F: pers 2-8. But do check the help-schedule.

DR. JAMES C. HORVATH IN LEIGH 132.

DR. HORVATH MUST BE SEEN IN PERSON TO RESOLVE All ISSUES REGARDING CHM 2046L. Contact via email or telephone is NOT acceptable and WILL BE IGNORED! This policy remains in effect during as well as after the Term.

HAVE A GREAT SEMESTER