

Course Administrator: Dr. James C. Horvath (horvath@chem.ufl.edu)\*  
Lab Mgr & Eve Lab Mgr: Donna Turner & Candace Biggerstaff (see below):  
Contact Lab Mgr or Eve Lab Mgr at: [CHEM-2046L-L@lists.ufl.edu](mailto:CHEM-2046L-L@lists.ufl.edu)

LEI 132  
LEI 136-138  
LEI 136-138

\* **BEFORE** contacting Horvath by email, SEE bottom of pg. 3 of this Syllabus at **COMPLAINTS/CONFLICTS**, etc.  
**To the Student: READ & RETAIN THIS SYLLABUS** as it contains details pertinent to CHM 2046L. **YOU ARE RESPONSIBLE FOR KNOWLEDGE OF THIS INFORMATION! IGNORANCE IS NOT AN EXCUSE!**

**Students With Disabilities:** Students needing special accommodations in CHM 2046L must register with the Disability Resource Center (Reid Hall room 001) 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.

**Canvas:** Canvas is used for grade maintenance & message posting. Login to Canvas using your GatorLink ID and password at: [lss.at.ufl.edu](https://lss.at.ufl.edu) **CHECK CANVAS REGULARLY FOR INFO & MESSAGES ABOUT CHM 2046L!**

**Beginning the Term (Read Carefully!):** CHM 2046L begins M:1/11/16 - F:1/15/16. On these days each sect. checks in and gets going with Assignment 1 in the CHM 2046L Lab Manual. **TO START PROPERLY, ANSWER Q 1.1 ON PAGE 1-13 IN ASSIGNMENT 1 (A1) BEFORE YOU ARRIVE FOR CHECK IN.**

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

**During the Term (Read Carefully!):** There are no LS's on M: 1/18/16 which is a holiday to honor Dr. Martin Luther King's Birthday (MLK Day). The missed LS's for MLK Day will eventually be made up on M: 4/18/16. Also note:

There are no LS's M: 2/29/16 - F: 3/4/16 (Spring Break). The last (13th) LS for 46L is during T: 4/12/16 - M: 4/18/16.

This schedule gives each 2046L section its full allotment of 13 LS's for the term. \_\_\_\_\_

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

1. CHM 2046L Lab Manual. "Chem istry for Laboratory II" by Horvath, 4TH Ed. Get at UF or other local bookstore. New manual required if you are repeating this course.
2. Chem. Dept. approved eye protection. UVEX S2500-S2530 plastic safety glasses (available at UF or Florida Bookstore) or full safety goggles must be used as these can cover prescription glasses. **NO 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.

**Safety & Clean-Up:** See GENERAL CHEMISTRY LABORATORY REGULATIONS (GCLR). Students may not 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. **NEVER** return unused portions to original container. Use supplies ONLY from your Lab Area. As necessary get additional supplies at Stockwindow – **NOT** another Lab Area.
9. **CLEAN UP ANY MESS YOU MAKE.** Discard waste materials appropriately - consult instructor if you have questions. **CLEAN YOUR WORK AREA AT CONCLUSION OF EACH LS. PENALTIES WILL 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!

**Cell Phone Use:** Turn OFF cell phones in Lab! Lab cell phone use costs 10 pts from SG per call up to 3 calls – then SG = zero! If you are to get an emergency call, tell your TA and when call comes step out of Lab to answer the call.

**Attendance:** THE STUDENT IS TO BE ON TIME FOR EACH SCHEDULED LS AND WORK THE ENTIRE LS UNTIL ALL WORK FOR THE TERM IS COMPLETED. LSs provide ample time for all required as well as extra credit work plus some 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 is during last 10 minutes of LS. (See GCLR.)

**NOTE: Regardless of UF SCHEDULE, pers 11-E2 LSs end at 9:15 pm. Thus, all 46L SECTS have 3 hr LSs.**

**Preparation:** Preparation before each Assignment (A) is required. This means pre-read entire A with stress on understanding Discussion in Lab Manual since most all 46L work is done in Lab excepting "Problems" (Ps) and preparation of Unknown Analysis Schemes. Ps and Unknown Schemes are homework. Solutions to all Ps except: P1.1, 1.2, Unknown Schemes, and Ps for A's 10 and 11, are posted – thus, you can check Ps on your own. P solutions are posted on the 46L bulletin boards (outside east wall of CLB C130 & next to LEI 224).

**Deadlines:** Experiment (Exp) work for A1 (see \* below) should be completed during LS 1 after check in. Thereafter, with A2, etc., all work is "self pace" **EXCEPT FOR UNKNOWN ANALYSIS!**

**Approx no. of LSs to Complete an A:** A1-1 A2-2.5 Unk 2A/B-0.5 A3-1 A4-1 Unk 5A/B-0.67 A6-1.5 A7-1 A8-1.5 Unk 9A/B-0.67. Thus, by preparing, ample time is available for all required work as well as extra credit work. **BUT, IF YOU FALL BEHIND, YOU MUST PICK UP YOUR PACE.**

\* ~~The Exp for A1 may be done in teams of two since many solutions must be prepared for A1 work.~~ But, following A1, teamwork in 46L is NO LONGER permitted. NO EXCEPTIONS!

Exp and Ps for an A are due at the start of the LS after completing Exp for corresponding A. For instance, since the Exp for A2 should be completed within three LSs, the Exp & P for A2 should be turned in for formal grading at the start of LS 4. Similarly, if Exp for A3 is completed at some time during LS 5, the Exp & P for A3 are due at start of LS 6.

To turn in work carefully remove Exp & P pages at the perforation in the Lab Manual. Staple Exp & P pages together in sequence and give to your TA. When graded work is returned, repaginate it in your Lab Manual kept in a 3-ring binder. ALL work is to be turned in directly to your TA. However, if you are unable to contact your TA, work may be turned in at the Lab Stockwindow (but NEVER during the last LS). And, IF YOU MISS LAB, WORK MUST STILL BE TURNED IN "ON TIME"! NEVER TURN IN WORK VIA CHEM. DEPT. MAIL! See your TA for instructions on turning in work out of Lab.

**Late work is devalued 10% per day late up to one week late. NO credit for work later than one week.**

**In general, do each A in sequence contained in Lab Manual.** (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. (**Each unknown analysis MUST be completed and the UNKNOWN REPORT turned in AT 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 - PENALTIES APPLY to UNKNOWN ANALYSIS DELAY** - specifically: **STARTING WORK in A6 PRIOR to 2A/B ANALYSIS COSTS 25 PTS to GET 2A/B UNKNOWN.** **STARTING WORK in A8 PRIOR to 5A/B ANALYSIS COSTS 25 PTS to GET 5A/B UNKNOWN.** **NO EXCEPTIONS – MAKEUPS INCLUDED. STOCKROOM PERSONNEL WILL CHECK LAB MANUALS to ENSURE STUDENT COMPLIANCE.** **Keep pace! Be careful in opting to delay unknown analysis!**

**FINALLY: YOU ARE STRICTLY "ON YOUR OWN" FOR UNKNOWN ANALYSIS.** No one including your TA may offer help for unknown analysis. Stockroom personnel *exclusively* write start/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 min. 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	710	Note: 2-pt. penalty per minute late!

**\* TA-approved, "non-xeroxed" Scheme of Analysis must be presented at Stockwindow to obtain unknowns 2A/B, 5A/B, & 9A/B. Obtaining a 2A/B, 5A/B, and/or 9A/B sample without approved Scheme costs 25 pts!**

**"Unknown A" is in the sample package with the numerical label.**

**\*\* Unknown samples 5A and 9A are guaranteed pure salts** (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!**

**UNKNOWN GRADING:** EACH ERROR (omission – a sample ion is not reported; or, commission – a reported ion is not in the sample) COUNTS AGAINST YOU. Also, regardless of no. of correct ions, 6 or more errors = ZERO.

● **YOU MUST 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 THUS, YOU MUST PRESENT YOUR LAB MANUAL TO YOUR TA FOR INSPECTION AT THE BEGINNING AND END OF EACH LS. NONCOMPLIANCE WITH THIS POLICY RESULTS IN ZERO CREDIT FOR ALL NON-"OK'd" WORK. AND, ACTUAL EXPERIMENT RESULTS MUST BE PRESENTED TO YOUR TA TO OBTAIN OK APPROVAL. OKs 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 LAB WORK from other STUDENTS RESULTS in AUTOMATIC GRADE of E for BOTH students INCLUDING those who have already taken 46L since grade penalties can be applied retroactively! NO EXCEPTIONS.** Bookbags, notebooks, backpacks, etc., will be inspected regarding this issue. **CALCULATORS NOT permitted after A1 as they are no longer necessary.**

● **LAB SUPPLIES and EQUIPMENT MAY NOT BE REMOVED FROM THE LAB FOR ANY REASON (other than to submit unknown samples to Dr. Horvath for regrade). NO EXCEPTIONS. MINIMUM PENALTY IS GRADE OF E.**

● **SUBMISSION of CONTAMINATED or SPIKED UNKNOWN SAMPLE for REGRADE IS AN ACT OF ACADEMIC DISHONESTY. MINIMUM PENALTY IS GRADE OF E.**

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

**Subjective Grade (SG) by Lab Instructor:** The SG is a 50-pt max grade resting mainly on factors such as preparedness, neatness, improvement, demonstrated interest in learning, and exhibited contribution to Team Work. Thus, the SG is principally a character-assessment grade (like a reference letter) made by your TA and if you simply meet minimum requirements as a 2045L student – but no more – your demonstration of character is average, hardly good enough to get you hired, and your SG will be ~30-35 pts. **SIMPLY PUT – YOU MUST EXCEL TO BE EXCELLENT!**

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

**Checkout & Last LS:** Students may work during the first 90 minutes (absolute maximum) of LS 16. **NOTE THAT IF YOU ARE DOING UNKNOWN ANALYSIS IN LS 16, SAMPLES WILL NOT 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.

**Also:** 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. Students completing 46L must check out on (or before) LS 13.

**Final Exam:** The Final is a minimum 140-pt exam given T: 4/26/16, 10:00 am - Noon (Exam Group 26B), at a location to be announced. If you are taking the Final but have a conflict with the schedule see Dr. Horvath *in person during the last week of class* in LEI 132 to arrange a makeup. Final Qs & Ps relate to understanding work done in A's 1- 9. Extra credit can also be earned on the Final. **A SOLUTION KEY TO A PAST 2046L FINAL EXAM IS AVAILABLE ON CANVAS.**

**Course Grade:** The CHM 2046L grade is based on Total Pts Earned, NOT %'s including earned extra credit (XC).

**Note:** Including XC work available in certain A's, **EARNABLE PT TOTALS ARE:** 915 (Exps, Probs, Schemes, Unks for A's 1-9) + 170 (Exps., Probs. Schemes, Unks for A's 10 & 11) + 50 (max SG) + 140 (Final) = 1275

The following grade scale then RIGIDLY 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 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.

**Makeup (MU) Lab:** A student missing an LS for legitimate cause (excusable absence) may request a MU Lab. Student initiates the process by obtaining a Lab MU Form at Lab Stockwindow and following instructions on MU Form. **Note:**

- A MU 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 NO MU BEING GRANTED.
- MUs are scheduled solely at the discretion of Donna Turner or Candace Biggerstaff (Lab Managers.). TAs may NOT schedule MUs. MU MUST be done at date, period, and work space designated on MU Form. NONCOMPLIANCE WITH THIS POLICY RESULTS IN ZERO CREDIT AS A MINIMUM PENALTY FOR WORK MADE UP.
- For questions on MU scheduling see Donna Turner or Candace Biggerstaff.  
**Do NOT contact Dr. Horvath about MU unless absolutely necessary – and, only in person!**
- One MU max can be scheduled per week. NO EXCEPTIONS unless approved by D Turner, C Biggerstaff, or Dr. Horvath.
- For each MU a MU Form must be approved by your regular Lab TA's signature. On completion of MU, MU Form and made-up work must be submitted to your regular TA. MU work submitted for grading without the appropriately signed MU Form will NOT be accepted. MU work NOT OK'd by MU TA will be treated as cheating. Penalty is "E" grade!
- MUs 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 MU.

**UNKNOWN ANALYSIS & MU:** Doing unknown analysis during a MU Lab requires that you print the name of your regular Lab TA on the UNKNOWN REPORT right after "Instructor Initial". This is necessary so that the graded Unknown Report can be given to your TA and then to you.

**Assembly Exam & MU:** Students with evening Lab (pers 11-E2) may have to take Assembly Exams beginning at 8:20 pm. Each such student is to request an exam MU from the professor giving the exam -- but, if the request is not granted, the student must attend Lab on the day of the exam until 8:00 p.m. Following two Assembly Exams the student will be granted a full (3 hr) MU. For a single Assembly Exam, the student will be granted a half MU (90 mins).

Questions regarding this policy are to be asked at the Stockwindow.

**STUDENTS OPTING TO MISS LAB for an EXAM RECEIVE "ZERO" for 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, if you miss three consecutive LSs but intend to return to 2046L it is your duty to contact the Lab Mgr (Donna Turner) via email at: [donnat@chem.ufl.edu](mailto: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 Chemistry Learning Center (CLC) which is in 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 on Canvas and help will generally be available throughout the week. But do check the help schedule.

**Please report the name of any 2046L TA absent from scheduled CLC duty to Dr Horvath.**

**COMPLAINTS/CONFLICTS/Qs ON GRADES, etc:** If you experience issues with CHM 2046L (ex: Qs on grading) which you cannot resolve with your TA, IN PERSON see **DR. HORVATH IN LEIGH 132.**

**AND DO NOT WAIT TIL THE END OF THE TERM TO RESOLVE AN ONGOING PROBLEM!**

**DR. HORVATH MUST BE SEEN IN PERSON TO RESOLVE ANY ISSUE REGARDING CHM 2046L.** Email or telephone contact may be used ONLY to establish a meeting time if the student cannot attend Horvath's Ofc Periods\*. Beyond that, email and/or telephone messages WILL BE DELETED! This policy is in effect during and after the Term.

\*To arrange to see Dr Horvath, send him your schedule. Do NOT ask Dr Horvath when he can see you!

**HAVE A GREAT SEMESTER**

Those who never try are those who really fail. More is gained from a hard-earned "C" than from a soft, easy "A".