

Lab Professor: Narayan Hosmane, Faraday Hall 305

Section L001

Lab Time: Wednesday 1:00-5:00 pm

Lab TA: Ted Litberg

Email: tlitberg2@niu.eduOffice Hours: M/W 12-1**Section L002**

Lab Time: Friday 1:00-5:00 pm

Lab TA: Brian Muller

Email: bmuller1@niu.eduOffice Hours: T/Th 10-11a**Tentative Laboratory Schedule**

***Read Chapters 1-6 in your lab textbook before the first lab. These chapters include the introductory materials you are expected to be familiar with beforehand.**

<u>Date</u>	<u>Lab Experiment</u>	<u>Lab Report Due</u>
1/20 – 1/22	Check In	
1/27 – 1/29	Expt 26: Synthesis of <i>cis</i> and <i>trans</i> -Co(en) ₂ Cl ₂ ⁺	
2/3 – 2/5	Expt 37: Platinum (II) Complexes—the Trans Effect + finish last week's lab if necessary	
2/10 – 2/12	Expt 20: Metal Complexes of Dimethylsulfoxide + finish last week's lab if necessary	Expt 26
2/17 – 2/19	Expt 22A: Synthesis of Tris(acetylacetonato)chromium (III) + finish last week's lab if necessary	Expt 37
2/24 – 2/26	Expt 29: Determination of Δ _o in Cr (III) Complexes + finish last week's lab if necessary	Expt 20
3/2 – 3/4	Expt 30: Preparation and Study of a Cobalt (II) Oxygen Complex + finish last week's lab if necessary	Expt 22A
3/9 – 3/11	Expt 30: Preparation and Study of a Cobalt (II) Oxygen Complex	
3/16 – 3/18	Spring Break	
3/23 – 3/25	Expt 40 + Handout 1: Preparation of Ferrocene + finish last week's lab if necessary	Expt 29
3/30 – 4/1	Handout 2: Preparation of (1,3,5-C ₆ H ₃ Me ₃)Mo(CO) ₃ + finish last week's lab if necessary	Expt 30
4/6 – 4/8	Handout 3: Preparation of Mo ₂ (O ₂ CCH ₃) ₄ + finish last week's lab if necessary	Expt 40
4/13 – 4/15	Handout 3: Preparation of Mo ₂ (O ₂ CCH ₃) ₄	Handout 2
4/20 – 4/22	Handout 3: Preparation of Mo ₂ (O ₂ CCH ₃) ₄ Check-out (if possible)	
4/25 – 4/29	Comprehensive Written Lab Exam Check-out (if not yet completed)	Handout 3

Information

You can get a copy of this syllabus, and all other class Handouts, at the class BlackBoard site.

Text: Z. Szafran, R. M. Pike, M. M. Singh, "Microscale Inorganic Chemistry", Wiley, New York, 1990. There will also be handouts for some of the labs.

Lab Notebooks: You must purchase a bound laboratory notebook before the first lab. The notebook must contain carbon pages, because you will be turning in the carbon page of your results with your lab report. Notebooks meeting this criterion are available from the bookstore and also from the stockroom. The stockroom versions cost less, and the Chem Club is supported by each purchase.

Before each lab, you should generate a prelab in the notebook with details as to how the lab will proceed. All laboratory observations, calculations, spectral data, and other relevant data should also be written neatly in the lab book during the experiment. A significant portion of your score on a particular lab will depend upon how neatly, precisely, and completely you enter data and observations into the notebook.

Handouts: Handouts and other class information will be available on the class BlackBoard site. Therefore, no excuses along the lines of "I lost my handout on that" will be accepted. If you do not have the handouts or information required, you will be barred from the lab on that day, and will earn a score of zero for the experiment.

Lab Reports: Once the experiment is completed, you will write/type and turn in a lab report detailing what you observed and concluded. The report will consist of the following parts:

- Introduction/Setup 15%
- Experimental Section 10%
- Results Section 30%
 - Observations – 10%
 - Yield and % Yield – 10%
 - Characterization – 10%
- Discussion Section 25%
- Conclusions and Answers to Questions 20%

As proof that your results section accurately represents what you accomplished in the lab, you will attach the carbon sheet from your notebook dealing with the experimental results to the report.

The TA will inform you as to how they want each section written, and what components must appear. The lab TA is solely responsible for lab grading; however, if problems arise, the lab professor will intervene.

Advice on writing the Lab Report appears in Chapter 3 of your Lab text.

Any student who may need an accommodation due to a disability, please make an appointment to see me during my office hours, or when convenient. A letter from Disability Resource Center (DRC) authorizing your accommodations is usually needed before accommodations can be granted.

Grades: Each experiment/report is worth 100 points. There will be a comprehensive written **Final** worth 100 points (10% of your grade). The grading scale will be:

A	=	100 – 93
A-	=	92 - 90
B+	=	89 – 87
B	=	86 – 83
B-	=	82 – 80
C+	=	79 – 77
C	=	76 – 70
D	=	69 – 60
F	=	59 – Below

Additional Notes:

- (1) You must perform all experiments in pairs unless instructed otherwise. Using another group's results without permission from the TA and professor will result in your receiving a zero for that experiment.
- (2) You must write your report independently. If the TA determines that you wrote your report with substantial assistance from others, including your lab partner, the TA will give your report a score of zero.
- (3) Failure to check out during the assigned time at the end of the semester will result in a failing grade for the entire course.
- (4) Lab reports are due two weeks from the day the lab is completed.
- (5) If your lab report is late, a penalty of 10 points per day late will be assessed for 5 days. After these 5 days the lab report will not be accepted and you will receive a zero.