

## **Analytical Instrumental Laboratory**

### **CHEM 314; Spring 2018**

**Course Name:** CHEM 314, 3 credits  
**Prerequisites:** CHEM 212  
**Location:** Reichardt 165 (lecture); Reichardt 245 (lab)  
**Meeting Time:** M 9:15-10:15am (lecture), MW 2:15-5:15pm (lab)  
**Final:** Friday, May 4 1-3 pm (based on lab meeting time)  
**Instructor:** Dr. Jingqiu Mao  
**Office:** Reichardt 188  
**Phone:** 907-474-7118  
**Email:** jmao2 @alaska.edu  
**Office Hours:** T&TH 2-4PM (other times by appointment).

#### **Recommended Materials:**

Skoog, Holler and Crouch,





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work, a list of all reagents and materials needed, a description of what you expect to find and/or how you will analyze the data, and include references to any outside sources consulted.

**1. Title-**

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3. **Introduction-** (2-3 paragraphs) Give some background on your question. Feel free to recycle from the project definition, but make it concise and coherent.
4. **Instrument Diagram-** (1-



**Additional Guidelines for Written Assignments**

- Abbreviations are often necessary and should be introduced clearly when used the first time.
- Element names (Iron) are spelled out only if they are the first word in a sentence and when they are part of a name (iron oxides). Otherwise, the symbol is used (Fe).
- Succinct description and clear reference in text to all figures and tables in the text.
- Do not duplicate data between the text and figures or tables
- Use SI units or the standard units in the field for all laboratory data. Appropriate formatting is used to indicate units. For example,  $\text{mg kg}^{-1}$  is correct, while  $\text{mg/kg}$  or  $\text{ppm}$  is not. Pay attention to these details in the literature you are reviewing.
- Use bold font to indicate references to figures, tables, and equations in the text. This helps during the proofreading process. Reference to



**REVIEW SAFETY FEATURES IN THE LAB (REIC 245)**

- Cubbies for bags and coats
- Location of personal protective equipment (PPE)
- Safety shower/eyewashes
- Fume hoods
- Exits out of room and out of building
- Waste bottles and broken glass container(s)
- Chemical/safety literature
  - [hazard.com/msds](http://hazard.com/msds) is a good start

**LABORATORY SAFETY RULES**

- **USE COMMON SENSE AT ALL TIMES!!!**
- No horseplay in lab
- No unauthorized experimentation
- Wear safety glasses/goggles—know when each is required
- Use of correct gloves (when appropriate)
- Knowledge of location and use of MSDS's
- NO food, drink, or gum in lab
- Do not leave fires unattended
- Label all containers with contents, your name, your class, and date/semester
- Report any accident or spill or unsafe condition
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