Instrumental Analysis lab meets in Room 321 of the New Science Building (SSMB). You will need to bring the following supplies with you:

- Safety glasses or goggles
- Lab Coat
- Nitrile Gloves (not latex)
- **Composition book** to serve as laboratory notebook
- Ballpoint pen, black preferred for all lab notebook recording

CHEM 521 lecture is a co-requisite for this course. You cannot drop one without dropping the other.

**Always remember, Safety First!**

If you do not have the appropriate safety gear, you will not be allowed to work in the lab. No exceptions.

**Safety Gear**

- You must wear your **safety glasses** or goggles at all times in the lab.
- **Long pants** are required. You can keep a pair in your lab drawer if you choose.
- **Footwear** must provide adequate protection to the entire foot. Sandals, open toe shoes, mesh top shoes and shoes with extremely high or narrow heels are considered inappropriate for laboratory conditions and will not be permitted.
- You are advised to tie back **long hair** and wear **shirts** that offer full coverage.
- **Lab coats** are required to cover your arms and protect your clothes.
- **Nitrile gloves** must be worn when working with solutions and other reagents.

**Lab Notebook**

A laboratory notebook should provide a full record of what was performed during the experiment. Most importantly, all data must be recorded in your notebook as soon as it is generated. Your laboratory instructor will check, initial and date your notebook data at the end of each experiment to ensure that it is properly recorded and that you have all the information you need to write your reports. All calculations should be shown in the laboratory notebook such that the instructor may follow your logic and check for calculation errors. Each student is expected to observe the College of Charleston Policy on Scientific Integrity.

**Reports Submission**

Reports are due the week following the experiment. Ten points will be deducted for every week that the report is late.

**Grading Policy**

Your lab grade will be determined as an average of all lab report grades. There are no lab quizzes, midterm or final.

**Attendance Policy**

You are expected to attend all laboratory meetings. You are responsible for completing all assigned labs. No exceptions.
Lab Reports
Your grade on the laboratory report will be based on the results obtained including analysis of unknown samples, a demonstration of an understanding of the procedure, and the effectiveness of communicating what you did. Organization and presentation of results will certainly be a factor. All write-ups exclusive of the data analysis must represent an individual effort. This means that copying of reports with cosmetic alterations of the language will result in a grade of F for both submitters. Cases involving wholesale submission of identical reports will be submitted to the Honor Board pursuant to the College of Charleston Honor Code.

Your lab reports should include the following sections:

Title
Author’s name
Partner’s name(s)
Abstract (also called Executive Summary)
1. Introduction – describe the problem this experiment was designed to solve or the principle it was designed to illustrate.
2. Materials and Methods – all of the materials and instrumentation that you used in your experiment goes in this section, as well as explanation of how you did things (e.g. “The sample was sonicated for 5 minutes, centrifuged at 4400 rpm for 15 minutes, and the supernatant transferred into an HPLC vial for analysis.”)
3. Results and Discussion – your data (tables, graphs, etc.) goes in this section, along with descriptions and/or statements about what the data means.

Your lab report will be graded on both content and presentation. Your graphs should look clean, non-cluttered, and clearly present the relationship that the data is illustrating. When photos are used as figures, they should be scaled in a way that the important details can be seen, but not so large that you’re wasting ink and space. Spelling, grammar, and significant figures must all be correct for full credit.