

The focus of this Instrumental Analysis course is on preparation of samples, operation of instrumentation, and interpretation of spectra. *There will not be any lectures in this course.* Do the chapter reading and try the end of chapter problems before class. Come to class prepared to ask questions. If you are not prepared, class time will not be productive for you (and you will find the next quiz difficult). Do not wait until the night before the quiz to start studying.

In general you will be working on more than one experiment each week. You may turn in up to two lab reports by 4:00 Friday on indicated weeks. (Late reports count for the following date.) The grade scale is based on 7 lab reports; extra experiments count as extra credit. See Lab Reports in your packet for more detail and a description of the lab reports.

	Thursday		Friday
August 28	Read Preface	LAB	
September 4	Read Chapter 1 SWKB 3.1-3.5, 3.8-3.14	LAB	Lab 1 due
September 11	Chapter 1 <b>QUIZ</b>	LAB	Lab 1-5 due*
September 18	Read Chapter 5 SWKB 2	LAB	
September 25	Chapter 5 <b>QUIZ</b>	LAB	Lab 1-5, 12-17 due*
October 2	Read Chapter 2 SWKB 3.6-3.7	LAB	
October 9	Chapter 2 <b>QUIZ</b>	LAB	Lab 1-7, 12-17 due*
Midterm			
October 23	Read Chapter 3, 4 SWKB 3.16, 4, 5, 6	LAB	
October 30	Chapter 3, 4 <b>QUIZ</b>	LAB	Lab 1-17, 20-21 due*
November 6	Read Chapter 6 SWKB 2	LAB	
November 13	Chapter 6 <b>QUIZ</b>	LAB	Lab 1-21 due*
November 20	Read Chapter 7	LAB	
Thanksgiving	SWKB 1		
December 4	Chapter 7 <b>QUIZ</b>	LAB cleanup	Lab 1-21 due*
December 9	Final Exam (2:00)		

\*Maximum of 2 labs can be handed in per due date.

Optional SWKB is Silverstein, Webster, Kiemle, Bryce, *Spectrometric Identification of Organic Compounds*. Readings are chapters or section numbers from the 7th or 8th edition. This classic book is recommended but not required. Most professional chemists use this book as a reference. Its strengths include the spectral tables, the approach of using more than one kind of spectra to elucidate structure, and the very large number of examples and worked problems. Do not rent this text. Buy a used copy you can afford to keep or use the copy in the student office or the library.

The course web page has links to additional useful references.

<https://chem.beloit.edu/classes/Chem225>

### Points in this Course

6 chemical safety sheets (5 points each). See the course web page for links and forms.

6 quizzes (30 points each)      7 lab reports (26 points each)      Final (60 points)

If you have a disability and need accommodations, contact Learning Enrichment and Disability Services located on 2nd floor Pearsons (north side), 608-363-2572 or [learning@beloit.edu](mailto:learning@beloit.edu). Obtain an Access Letter from LEADS and then we will discuss how to implement the accommodations.