

Professor: Edward B. Walker, Ph.D, SL503M, 626-6162
 Email: ewalker@weber.edu
 Web Site: <http://faculty.weber.edu/ewalker>

Objectives:

1. Be familiar with the Windows operating system.
2. Enhance word processing skills.
3. Become an expert in the chemistry applications of spreadsheet software.
4. Understand the fundamentals of computer-assisted data acquisition.
5. Become proficient in preparing, formatting, & submitting electronic reports.
6. Develop skills in importing and exporting data into/from various platforms.

Week	Date	Lecture Topic:	Assignments:
1	10-Jan	Overview, facilities, Windows environment, Email, and networks	Using WSU Email, send your name, major, expertise level, & interests (<i>by Friday</i>)
2	17-Jan	Word Processing: Creating, saving, editing and importing documents; tables, figures, equations	Create WP document including table, equation, & header
3	24-Jan	Spreadsheets: data entry, sorting, & functions	WEB Sheets # 1, 2, 3
4	31-Jan	Spreadsheets: Evaluation of equations & graphing data	WEB Sheets # 4, 5, 6
5	7-Feb	Spreadsheets: Linear and non-linear trend lines	WEB Sheets # 7, 8, 9
6	14-Feb	Spreadsheets: Regression analysis; instrument calibration plots	WEB Sheets # 10,11,12
7	21-Feb	Spreadsheets: Advanced plotting techniques, evaluation of intercepts, and reiterative calculations	WEB Sheets # 13,14,15
8	28-Feb	Spreadsheets: Determination and comparison of endpoints of acid-base titrations	WEB Sheets # 16,17,18
9	6-Mar	<i>Spring Break</i>	
10	13-Mar	Spreadsheets: Writing, executing and debugging macros	WEB Sheets # 19, 20
11	20-Mar	Spreadsheets: Matrix operations- Solutions to multiple linear equations	WEB Sheets # 21, 22
12	27-Mar	Database Functions in Excel	Web Sheet # 23
13	3-Apr	Drawing Programs: Molecular drawing software, importing and exporting graphical images	Draw Molecular Structures (Handout)
14	10-Apr	Review; Overview and Conclusions; The future of computing in modern chemistry laboratories	Receive Take-home Final Exam
15	17-Apr	Submit Final Exam (<i>No lecture</i>)	Final Exam Due: Electronic pdf version due TODAY.