

Lecture Schedule

Unlike other general chemistry texts, ours can be covered in its entirety in a one-year course. A reasonable schedule appears below. Further comments on the time you should devote to each chapter are in the body of this manual. The underlying assumption is that you are teaching 14-week semesters with two 50-minute lectures per week. If three class periods are devoted to examinations each semester, that leaves 25 for covering material. On that basis, you are able to complete Chapter 10 (Solutions) in the first semester. The second semester will then start with Chapter 11 (Rate of Reaction).

FIRST SEMESTER SCHEDULE

Week	Lecture	Topic
1	1	Chapter 1 (Matter and Measurements)
	2	Chapter 1
2	3	Chapter 2 (Atoms, Molecules, and Ions)
	4	Chapter 2
3	5	Chapter 3 (Mass Relations in Chemistry; Stoichiometry)
	6	Chapter 3
4	7	Chapter 3
	8	EXAM I
5	9	Chapter 4 (Reactions in Aqueous Solution)
	10	Chapter 4
6	11	Chapter 4
	12	Chapter 5 (Gases)
7	13	Chapter 5
	14	Chapter 6 (Electronic Structure and the Periodic Table)
8	15	Chapter 6
	16	Chapter 6
9	17	EXAM II
	18	Chapter 7 (Covalent Bonding)
10	19	Chapter 7
	20	Chapter 7
11	21	Chapter 8 (Thermochemistry)
	22	Chapter 8
12	23	Chapter 9 (Liquids and Solids)
	24	Chapter 9
13	25	Chapter 9
	26	EXAM III
14	27	Chapter 10 (Solutions)
	28	Chapter 10

SECOND SEMESTER SCHEDULE

Week	Lecture	Topic
1	1	Chapter 11 (Rate of Reaction)
	2	Chapter 11
2	3	Chapter 11
	4	Chapter 12 (Gaseous Chemical Equilibrium)
3	5	Chapter 12
	6	Chapter 13 (Acids and Bases)
4	7	Chapter 13
	8	Chapter 13
5	9	EXAM I
	10	Chapter 14 (Equilibria in Acid-Base Solutions)
6	11	Chapter 14
	12	Chapter 15 (Complex Ions)
7	13	Chapter 15
	14	Chapter 16 (Precipitation Equilibria)
8	15	Chapter 17 (Spontaneity of Reaction)
	16	Chapter 17
9	17	EXAM II
	18	Chapter 18 (Electrochemistry)
10	19	Chapter 18
	20	Chapter 18
11	21	Chapter 19 (Nuclear Chemistry)
	22	Chapter 20 (Chemistry of the Metals)
12	23	Chapter 20
	24	EXAM III
13	25	Chapter 21 (Chemistry of the Nonmetals)
	26	Chapter 21
14	27	Chapter 22 (Organic Chemistry)
	28	Chapter 23 (Organic Polymers: Natural and Synthetic)

If you want to use lecture time for review, for going over assigned problems, or for doing a large number of demonstrations, you will have trouble keeping up with this schedule. As you've almost certainly learned by now, the solution to this problem is not to talk faster. Judicious deletions work better. It's been said, and wisely, that the secret of giving a good lecture is knowing what to leave out. Possible candidates include:

- Introductory material on matter in Chapter 1 and atomic theory in Chapter 2. The chances are your students have been exposed to this material more than once in high school and understood it reasonably well the first time.
- Boyle's and Charles's laws in Chapter 5. We start the chapter by writing the ideal gas law and go on from there.
- The First Law discussion in Chapter 8. Quite frankly, this has very little to do with chemistry. Students will not be irreparably damaged if they are unaware of the distinction between H and E .
- The discussion of colligative properties in Chapter 10 could be shortened. Raoult's law could easily be omitted.
- Reaction mechanisms in Chapter 11. Students have a lot of trouble with this. We are not sure it is worth the effort.
- Polyprotic acids in Chapter 13.
- The Second Law discussion in Chapter 17.

Beyond these selective omissions, some instructors may want to delete one or another of the descriptive chapters at the end of the text (Chapters 20–22). If, in that way, you can squeeze out a couple of lectures, they can well be spent on Chapter 12 (three lectures instead of two) and Chapter 19 (two lectures instead of one).

Textbook authors sometimes tell you that chapters can be covered in almost any order, depending on your preference. This isn't really true for this textbook, or any other with structural integrity. It can be done, but only with very careful additions and deletions of material. Suppose, for example, you want to cover Precipitation Equilibria (Chapter 16) immediately after Acid-Base Equilibria (Chapter 14). Keep in mind that an understanding of formation constants (Complex Ions, Chapter 15) is assumed when methods of dissolving precipitates are considered in Section 16.2 of Chapter 16.