
Final Grades For My Chem 1 Classes. 1993-1999 (Fall Semesters)
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Year	Class Size	PERCENTAGES						
		A	B	C	D	F	WF*	A-Ratio**
1993	129	18	27	37	11	1	6	0.1
1994	138	17	22	39	8	4	10	0.2
1995	120	15	29	35	12	1	8	0.6
1996	107	23	31	16	19	5	6	0.5
1997	95	26	31	31	5	1	6	0.3
1998	113	22	34	26	7	3	8	0.9
1999	123	35	28	27	4	2	4	1.1

* WF = Withdraw Failing (based on my records, most will be W on transcript)

** A-Ratio = # of A's on Final Exam/# of A's on Exam 1

Electronic Innovations:

1995

- Tutorials (HyperCard) made available in one CLC with 12 Macintosh Computers. Students were urged to use them, but there was no direct connection to the class.
- Started Tuesday evening sessions (volunteers) on using computer.
- Exams from the previous year were made available in the CLC.
- Improved Digital Projector installed in lecture hall.

1996

- Tutorials were included in assignments. Quizzes were based on both assigned textbook problems and tutorials.
- Started adding color to tutorials using SuperCard
- Started using my Web page for communication with the class.
- Exams from the previous two years were made available in the CLC.
- First use of Mastery tests (Elements and Ions) as a requirement to remain in course.

1997

- Tutorials were made available on 40 Machines in 3 different buildings.
- Simulations (Oracle Media Objects) were first used as part of Chem 2 labs.

1998

- Web Access to Tutorials (SuperCard Web/Roadster).
- Electronic Questionnaire on Expectations as formal assignment.
- E-mailed Introduction as formal assignment.
- Lab experiments with electronic data acquisition.
- Web access to previous exams.

1999

- More tutorials converted to Web Access.
- More use of Simulations in Chem 2 Lab.

General Observations:

Each year I rank my Chem 1 class in comparison to previous years. My rankings have been in general agreement with those of other Chem 1 instructors for that year, and with the rankings of Physics faculty the following year (only our top incoming students take Physics in their first year). There is also agreement with my ranking of my Physical Chemistry class two years later.

I observed a trend of decreasing quality through the 80's and into the 90's.

The '92 class showed a sharp increase in quality, comparable to the early-to-mid 80's.

The '93 class maintained this quality, then there were substantial drops in '94 and '95, and the bottom dropped out in '96. (That bottoming-out was also observed in the '98 Physical Chemistry class). This was unquestionably the least prepared class I have ever seen, with the worst problem-solving skills.

The '97 class was back to the '95 level, and was characterized by an uncommonly low percentage of unmotivated students. (Their work-ethic was comparable to the 80's, but they were also the least-likable class I've ever had) Most of those who withdrew would probably have passed the course.

The '98 and '99 classes are comparable in ability to the '95 and '97 classes. In contrast to '97, however, these were the most likable students I've ever taught. Their work-ethic is high, and you could see their problem-solving skills improve on every exam.
