

This survey was developed by the LEAD (The Learning through Evaluation, Adaptation and Dissemination) Center at the University of Wisconsin, Madison for "New Traditions Systemic Reform Project.

**Chemistry 103
End-of-Semester Survey**

Chemistry Course Survey Consent Form for Students

The Learning through Evaluation, Adaptation and Dissemination (LEAD) Center is conducting a survey of some of the Chemistry Department's undergraduate courses. The survey is designed to assist faculty in understanding the effects of course innovations on students' learning experiences and may lead to improvements in the teaching of chemistry nationwide.

We are asking students who are enrolled in the participating lectures to complete a brief survey about their learning experiences in the course. The survey should take about ten minutes to complete. In order to correlate responses with demographic data and measures of achievement we are asking you to write your Student I.D. number on the survey.

All student responses will be held strictly confidential. The LEAD Center will generalize about student responses so as to obscure the identity of any particular students before reporting any survey findings. The LEAD Center may publish papers based on the results of this survey, but these materials will contain no information that would identify particular students.

Participation is completely voluntary. (Students choosing not to participate may simply return a blank survey). Refusal to participate will have no effect on your grade. There are no formal benefits or risks associated with participation.

Any questions you have you may ask now, or you may call Dr. Susan Millar, Director, LEAD Center, at 265-5943.

I have read the above and give my consent to participate in the study.

Signature _____	Date _____
STUDENT I.D. Number _____	
(Please write your I.D. both here and fill in it in on the upper left corner of the "bubble" sheet)	

The LEAD Center wishes to thank you for participating in this national study of how students learn in college chemistry courses. The questions in the survey are intended to help LEAD Center researchers understand your experiences in the chemistry course in which this survey is being administered. Your thoughtful responses to the questions in this survey will enable us to help faculty across the nation improve chemistry education.

Copies of this consent form can be obtained at the LEAD Center room 427, 1402 University Ave.

Please fill in your responses using a no. 2 pencil on the separate bubble sheet.

BACKGROUND:

- 1) semesters of high school chemistry: 0 1 2 3 over 3 (fill in bubble 4)
 2) semesters of high school math: 0 1 2 3 4 5 6 7 8

For each group of factors below please fill in a number on the bubble sheet to indicate the *relative impact* of each factor on your LEARNING overall in this course.

relative impact on your LEARNING overall

	PEOPLE	not applicable	negative			neutral			positive
3)	professor	0	1	2	3	4	5	6	7
4)	TA/lab instructor	0	1	2	3	4	5	6	7
5)	friends/informal groups	0	1	2	3	4	5	6	7
6)	course organized groups	0	1	2	3	4	5	6	7
7)	Chem Learning Center	0	1	2	3	4	5	6	7

relative impact on your LEARNING overall

	ACTIVITIES/ MATERIALS	not applicable	negative			neutral			positive
8)	lecture-- overall	0	1	2	3	4	5	6	7
9)	-- concept tests	0	1	2	3	4	5	6	7
10)	-- demonstrations	0	1	2	3	4	5	6	7
11)	-- exams	0	1	2	3	4	5	6	7
12)	-- quizzes	0	1	2	3	4	5	6	7
13)	labs-- overall	0	1	2	3	4	5	6	7
14)	-- UW-ChemScape	0	1	2	3	4	5	6	7
15)	-- lab manual	0	1	2	3	4	5	6	7
16)	discussion-- overall	0	1	2	3	4	5	6	7
17)	-- Challenge Problems	0	1	2	3	4	5	6	7
18)	-- homework/exercises	0	1	2	3	4	5	6	7
19)	other-- Chem You Can Do	0	1	2	3	4	5	6	7
20)	-- the textbook	0	1	2	3	4	5	6	7
21)	--weekly computer exercises	0	1	2	3	4	5	6	7
22)	--special computer assignments	0	1	2	3	4	5	6	7

For each group of factors below please fill in a number on the bubble sheet to indicate the *relative impact* of each factor on your CONFIDENCE in your ability to understand and do chemistry.

relative impact on your CONFIDENCE

	PEOPLE	not applicable	negative			neutral			positive
23)	professor	0	1	2	3	4	5	6	7
24)	TA/lab instructor	0	1	2	3	4	5	6	7
25)	friends/informal groups	0	1	2	3	4	5	6	7
26)	course organized groups	0	1	2	3	4	5	6	7
27)	Chem Learning Center	0	1	2	3	4	5	6	7

relative impact on your CONFIDENCE

	ACTIVITIES/ MATERIALS	not applicable	negative			neutral			positive
28)	lecture-- overall	0	1	2	3	4	5	6	7
29)	-- concept tests	0	1	2	3	4	5	6	7
30)	-- demonstrations	0	1	2	3	4	5	6	7
31)	-- exams	0	1	2	3	4	5	6	7
32)	-- quizzes	0	1	2	3	4	5	6	7
33)	labs-- overall	0	1	2	3	4	5	6	7
34)	-- UW-ChemScape	0	1	2	3	4	5	6	7
35)	-- lab manual	0	1	2	3	4	5	6	7
36)	discussion-- overall	0	1	2	3	4	5	6	7
37)	-- Challenge Problems	0	1	2	3	4	5	6	7
38)	-- homework/exercises	0	1	2	3	4	5	6	7
39)	other-- Chem You Can Do	0	1	2	3	4	5	6	7
40)	-- the textbook	0	1	2	3	4	5	6	7
41)	--weekly computer exercises	0	1	2	3	4	5	6	7
42)	--special computer assignments	0	1	2	3	4	5	6	7

Please compare your **INTEREST** levels in the areas below **BEFORE** and **AFTER** taking this course. (Fill in a number on the bubble sheet for each row.)

interest level

INTEREST IN...			low					high
science in general.....	43)	before	0	1	2	3	4	5
	44)	after	0	1	2	3	4	5
chemistry in general.....	45)	before	0	1	2	3	4	5
	46)	after	0	1	2	3	4	5
taking more chemistry.....	47)	before	0	1	2	3	4	5
	48)	after	0	1	2	3	4	5
pursuing a chemistry-related major....	49)	before	0	1	2	3	4	5
	50)	after	0	1	2	3	4	5
pursuing a science-related field	51)	before	0	1	2	3	4	5
	52)	after	0	1	2	3	4	5
working with others to learn science...	53)	before	0	1	2	3	4	5
	54)	after	0	1	2	3	4	5

Please assess your **CONFIDENCE** levels in the areas below **AFTER** attending this course. (Fill in the appropriate number on the bubble sheet).

	CONFIDENCE IN YOUR ABILITY TO...	confidence level						
		low						high
55)	understand key concepts of chemistry	0	1	2	3	4	5	
56)	solve chemistry problems	0	1	2	3	4	5	
57)	understand the chemistry of lab experiments	0	1	2	3	4	5	
58)	perform lab experiments	0	1	2	3	4	5	
59)	visualize key concepts of chemistry	0	1	2	3	4	5	
60)	apply your knowledge of chemistry to the real world	0	1	2	3	4	5	
61)	understand other areas of science	0	1	2	3	4	5	
62)	succeed in this chemistry course	0	1	2	3	4	5	
63)	succeed in a chemistry-related discipline	0	1	2	3	4	5	

64)	What grade do you expect in this course?	For...	C	BC	B	AB	A	other
		Fill in...	0	1	2	3	4	5

Please rate the *relative importance* of each of the factors below in terms how you might approach *solving a difficult chemistry problem*: (Fill in the appropriate number on the bubble sheet.)

		not very important			very important			not applicable
65)	working on your own	0	1	2	3	4	5	6
66)	doing similar homework problems	0	1	2	3	4	5	6
67)	reading sample problems in the text	0	1	2	3	4	5	6
68)	reading explanations in the text	0	1	2	3	4	5	6
69)	asking your instructor (out of class)	0	1	2	3	4	5	6
70)	asking your instructor (during class)	0	1	2	3	4	5	6
71)	working in course organized groups (during class)	0	1	2	3	4	5	6
72)	working in course organized groups (out of class)	0	1	2	3	4	5	6
73)	working with friends/informal groups	0	1	2	3	4	5	6

Please rate the *relative importance* of each of the factors below in terms of helping you to *grasp difficult concepts in chemistry*: (Fill in the appropriate number on the bubble sheet.)

		not very important			very important			not applicable
74)	lab experiments	0	1	2	3	4	5	6
75)	working on your own	0	1	2	3	4	5	6
76)	doing homework problems	0	1	2	3	4	5	6
77)	reading sample problems in the text	0	1	2	3	4	5	6
78)	reading explanations in the text	0	1	2	3	4	5	6
79)	asking your instructor (out of class)	0	1	2	3	4	5	6
80)	asking your instructor (during class)	0	1	2	3	4	5	6
81)	working in course organized groups (during class)	0	1	2	3	4	5	6
82)	working in course organized groups (out of class)	0	1	2	3	4	5	6
83)	working with friends/informal groups	0	1	2	3	4	5	6

For each statement please fill in **one** number on the bubble sheet which best represents your view.

	<u>LAB EXPERIMENTS</u>	strongly disagree					strongly agree
84)	The labs helped me understand important concepts in this course.	0	1	2	3	4	5
85)	The labs were an effective way to learn laboratory procedures.	0	1	2	3	4	5
86)	The labs related well to the lecture material.	0	1	2	3	4	5
87)	My TA was effective in helping me learn from the labs.	0	1	2	3	4	5
88)	My lab partners were effective in helping me learn from the labs.	0	1	2	3	4	5
89)	I understood the chemistry concepts behind the labs before I did them.	0	1	2	3	4	5
90)	Eventually, I understood the chemistry behind the labs.	0	1	2	3	4	5
91)	Often, enough time was not allowed for labs.	0	1	2	3	4	5
92)	Usually, everyone in my lab group contributed about equally.	0	1	2	3	4	5
93)	I would have learned more if I had done the labs on my own.	0	1	2	3	4	5
94)	I was an effective contributor to my lab group.	0	1	2	3	4	5
95)	While doing the lab, I sometimes thought about the concepts the lab illustrated.	0	1	2	3	4	5

	<u>CHALLENGE PROBLEMS</u>	strongly disagree					strongly agree
96)	The Challenge Problems were an effective way to learn key chemistry concepts.	0	1	2	3	4	5
97)	Often, enough time was not allowed for Challenge Problems.	0	1	2	3	4	5
98)	My TA was effective in helping me learn from the Challenge Problems.	0	1	2	3	4	5
99)	Often, the Challenge Problems were so hard they were a waste of time.	0	1	2	3	4	5
100)	Doing the Challenge Problems increased my confidence that I could succeed in this course.	0	1	2	3	4	5
101)	My group was effective in helping me learn from the Challenge Problems.	0	1	2	3	4	5
102)	Usually, everyone in my Challenge Problem group contributed about equally.	0	1	2	3	4	5
103)	I would have learned more if I had done the Challenge Problems on my own.	0	1	2	3	4	5
104)	While doing the Challenge Problems, I sometimes felt that my group was dominated by one or two people.	0	1	2	3	4	5
105)	I was an effective contributor to my Challenge Problem group.	0	1	2	3	4	5

GENERAL: (Fill in the appropriate response)

106)	I am confident that I learned the material in Chem 103 well enough to be prepared for Chem 104	0	1	2	3	4	5
107)	I am confident that I am prepared for Chem 104 , regardless of who teaches it	0	1	2	3	4	5

108)	I am planning to take Chem 104	for...	no	yes			
		fill in...	0	1			

109)	average hours each week spent on this course:	for...	0-5 hr.	5-10 hr.	10-15 hr.	15-20 hr.	over 20 hr.
		fill in...	0	1	2	3	4

		definitely not recommend					definitely recommend
110)	Would you recommend this course to a friend?	0	1	2	3	4	5

THANK YOU !