# 14 CHEMISTRY

#### Introduction

The Chemistry Students' Union (CSU) is a student run organization acting as the representative voice for all undergraduate students enrolled in a chemistry course. We hold social and academic events which strive to bring together students who share an interest in the discipline. We are always looking for more people to help out with events, so if you would like to get involved, e-mail us at csu@chem.utoronto.ca. Also, e-mail us if you have any suggestions or concerns about courses, instructors or anything else on your mind and we will try our best to help.

To find out more about the CSU and our events, please visit our website at **www.chem.utoronto.ca/students/csu**, and also look for our notices on upcoming events in Lash Miller.

**CSU Executive** 

#### CHM 138H1F Introductory Organic Chemistry I

Instructor(s): D. Stone

Enr: 214			Resp	Retake: 68%				
	1	2	3	4	5	6	7	Mean
Presents	0	0	11	18	31	25	12	5.1
Explains	0	0	11	12	35	28	12	5.2
Communicates	0	0	2	8	33	25	29	5.7
Teaching	0	0	2	17	28	35	15	5.4
Workload	0	0	1	41	20	28	8	5.0
Difficulty	0	0	1	44	31	17	5	4.8
Learn Exp	1	1	1	29	36	20	8	4.9

A few students said Stone was not energetic with the way he lectured. Students would have appreciated the course more had the material been presented at an even pace. They felt that they were rushed in the end because there was so much to go through.

However, many students greatly appreciated Stone's sense of humour as it made an evening class more fun to attend.

Instructor(s): M. Winnik

Enr: 280		F	Resp:		Retake: 79%			
	1	2	3	4	5	6	7	Mean
Presents	0	1	4	12	30	28	22	5.5
Explains	0	0	2	11	17	32	34	5.8
Communicates	0	0	0	5	15	34	43	6.2
Teaching	0	0	0	8	17	38	35	6.0
Workload	0	0	3	37	36	16	6	4.9
Difficulty	0	0	6	40	31	13	6	4.7
Learn Exp	0	0	1	24	33	26	13	5.2

Winnik was described by most students as a very good instructor. He exhibited a lot of enthusiasm and gave good examples. His explanation of the material was clear and he always answered questions. However, a few students felt he talked too fast at times.

Instructor(s): J. Chin; A. Dicks

Enr: 385		F	Resp:	Ret	ake: 82%			
	1	2	3	4	5	6	7	Mean
Chin:								
Presents	4	4	13	23	28	19	6	4.5
Explains	1	6	15	17	28	25	5	4.6
Communicates	1	5	4	18	25	24	20	5.2
Teaching	0	3	6	20	32	27	8	5.0
Dicks:								
Presents	0	0	0	3	5	26	65	6.5
Explains	0	0	0	1	13	35	49	6.3
Communicates	0	0	1	2	13	31	51	6.3
Teaching	0	0	0	2	10	35	51	6.4
Course:								
Workload	0	0	0	34	32	24	8	5.0
Difficulty	0	1	1	43	39	12	2	4.7
Learn Exp	0	0	0	21	33	29	14	5.3

Students found it to be a challenging, yet interesting introductory course. Dicks was incredibly enthusiastic. He had a funny, interesting and altogether effective teaching style. His lectures were organized and he made good use of diagrams and graphs.

Chin tended to lecture too quickly.

Instructor(s): J. Chin; A. Dicks

Enr: 280		F	Resp:		Retake: 78%			
	1	2	3	4	5	6	7	Mean
Chin:								
Presents	1	0	11	23	33	18	10	4.9
Explains	0	2	8	24	28	25	8	4.9
Communicates	0	0	4	10	28	28	26	5.6
Teaching	0	2	3	12	31	31	18	5.4
Dicks:								
Presents	0	0	0	1	8	23	66	6.5
Explains	0	0	0	2	13	32	50	6.3
Communicates	0	0	0	1	15	34	48	6.3
Teaching	0	0	0	2	10	30	56	6.4
Course:								
Workload	0	0	2	35	37	16	7	4.9
Difficulty	0	0	2	44	31	14	6	4.7
Learn Exp	0	0	1	20	37	27	12	5.2

Students said Chin just read from his notes. Some students commented that Chin's fascinating research was great and and they had the pleasure of hearing about it. Others said Chin could have made lectures more enjoyable if he had organized his material better and was more enthusiastic about the course.

Dicks was an amazing instructor. He lectured with great enthusiasm and was well-organized. He had a good sense of humour and was very helpful. He also explained difficult topics with clarity and with good use of examples.

Instructor(s): M. Winnik

Enr: 385	Resp: 186						Re	take: 83%
	1	2	3	4	5	6	7	Mean
Presents	0	1	2	10	27	34	23	5.6
Explains	0	0	2	7	19	33	36	5.9
Communicates	0	0	0	4	16	33	44	6.2
Teaching	0	0	1	6	13	43	34	6.0
Workload	0	0	0	35	30	25	7	5.0
Difficulty	0	0	1	41	39	14	1	4.7
Learn Exp	0	0	1	21	24	36	14	5.4

Winnik was perceived as a very enthusiastic lecturer. He explained difficult concepts clearly and did not hesitate to help students. Many commented that he was a very good instructor. He had an amazing sense of humour and was friendly to all who approached him.

Overall, the course was fun to take as it was well-structured and interesting.

# CHM 138H1S Introductory Organic Chemistry I

Instructor(s): C. Browning; M. Winnik

Enr: 387		F	Resp:		Reta	ake: 73%		
	1	2	3	4	5	6	7	Mean
Browning:								
Presents	0	0	0	7	17	41	33	6.0
Explains	0	0	0	6	21	40	30	5.9
Communicates	0	0	0	5	16	35	40	6.1
Teaching	1	0	0	3	16	42	35	6.1
Winnik:								
Presents	0	0	0	9	23	41	23	5.7
Explains	0	0	0	6	23	39	29	5.9
Communicates	0	0	1	3	15	32	47	6.2
Teaching	0	0	1	2	19	42	33	6.0
Course:								
Workload	0	0	1	42	37	14	3	4.7
Difficulty	0	0	2	46	32	14	2	4.7

Learn Exp 1 0 3 33 32 24 5 4.9

Browning was an enthusiastic instructor who communicated effectively and made the lectures interesting. Online slides and tutorials were very useful.

Winnik was enthusiastic and humorous. He was very approachable and helpful. However, students felt that he could have used more examples to express his point in lectures.

Overall, the course was well-organized and enjoyable.

Instructor(s): C. Browning; M. Winnik

Enr: 308		F	Resp:	Retake: 79%				
	1	2	3	4	5	6	7	Mean
Browning:								
Presents	0	0	0	2	14	43	39	6.2
Explains	0	0	0	2	15	45	36	6.2
Communicates	0	0	0	0	9	42	47	6.4
Teaching	0	0	0	1	11	41	45	6.3
Winnik:								
Presents	0	0	0	5	23	42	27	5.9
Explains	0	0	0	6	24	39	29	5.9
Communicates	0	0	0	1	10	43	44	6.3
Teaching	0	0	0	1	20	43	34	6.1
Course:								
Workload	0	0	1	39	32	22	3	4.9
Difficulty	0	0	2	41	38	13	3	4.7
Learn Exp	0	0	0	23	31	32	9	5.2

Browning was enthusiastic, helpful, friendly, and easy to approach. The use of Power Point slides were useful and helpful. However, many students felt that the time allowed for the test was short.

Winnik was an enthusiastic teacher who explained the material clearly and in an organized manner. Students found tutorials very useful.

CHM 139H1F Chemistry: Physical Principles

Instructor(s): C. Browning; M. Goh

Enr: 260		F	Resp:	Retake: 63%				
	1	2	3	4	5	6	7	Mean
Browning:								
Presents	0	0	0	8	24	34	30	5.8
Explains	0	0	0	11	24	36	27	5.8
Communicates	0	0	0	4	20	31	43	6.1
Teaching	0	0	0	7	22	36	32	5.9
Goh:								
Presents	2	1	4	16	23	36	15	5.3
Explains	2	1	6	22	27	28	10	5.0
Communicates	1	0	4	25	22	27	19	5.3
Teaching	2	0	1	13	35	31	14	5.3
Course:								
Workload	0	1	0	39	37	13	6	4.8
Difficulty	0	2	0	44	34	14	3	4.7
Learn Exp	0	2	8	41	27	13	5	4.6

Browning was funny and enthusiastic, and he really connected with the students. His lectures were prepared and organized well. His use of overheads to explain calculations was also effective. Labs were challenging because material was not taught enough beforehand, but tutorials were very helpful.

Goh was attentive to students. Goh used many examples, but tended to rush. Her use of presentation slides and Power Point presentations were organized.

Instructor(s): C. Browning; M. Goh

Enr: 382	Resp: 278						Re	take: 57%
	1	2	3	4	5	6	7	Mean
Browning:								
Presents	0	0	4	12	30	34	17	5.5
Explains	0	0	3	12	27	40	16	5.5
Communicates	0	0	1	6	20	39	29	5.8

				,	,,,,		<i>,</i> ,	12/1/1
Teaching	0	0	1	10	26	38	22	5.7
Goh:								
Presents	1	1	5	20	25	35	10	5.2
Explains	1	1	8	27	29	23	7	4.8
Communicates	1	1	3	16	32	28	16	5.3
Teaching	1	2	3	19	31	27	13	5.1
Course:								
Workload	0	0	1	35	36	16	8	4.9
Difficulty	0	0	2	37	32	19	6	4.9
Learn Exp	1	1	6	42	30	14	3	4.6

Browning was perceived as a highly enthusiastic instructor who explained difficult concepts well. He also took the initiative to help students who were encountering difficulties with the material by arranging special tutorials before tests. Some suggested that he should have posted his notes on the web because it was difficult to keep up with the pace of the lecture. All in all, students greatly enjoyed his lectures; he served as an inspiration to many.

Goh's use of Power Point in the lectures were great appreciated by students; but a few said was a distracting tool. She was unable to explain difficult material clearly although she tried her best to communicate the topics/concepts with precision. Overall, students believed she was well-organized.

Instructor(s): G. Scholes; J. Schofield

Enr: 387		I	Resp:		Ret	ake: 45%		
	1	2	3	4	5	6	7	Mean
Scholes:								
Presents	3	4	15	36	21	15	2	4.3
Explains	2	8	12	34	27	12	1	4.2
Communicates	11	4	16	29	19	15	3	4.0
Teaching	5	5	14	34	25	11	3	4.2
Schofield:								
Presents	0	3	1	27	23	30	12	5.1
Explains	1	5	8	27	26	18	12	4.8
Communicates	0	2	1	16	30	35	11	5.3
Teaching	1	2	6	26	32	21	8	4.9
Course:								
Workload	0	0	0	45	31	16	5	4.8
Difficulty	0	0	1	41	30	14	11	4.9
Learn Exp	3	1	11	53	22	5	0	4.1

Some students thought that Scholes was disorganized and unenthusiastic. Students were not satisfied with the content of the term test because it did not contain the relevant material from the lectures.

Schofield's lectures and lecture notes were very organized. However, students felt that the test questions were poorly worded and sometimes graded unfairly. Plus, his calculus made many students confused.

Instructor(s): J. Schofield; G. Scholes

Enr: 275			Resp:		Ret	ake: 44%		
	1	2	3	4	5	6	7	Mean
Schofield:								
Presents	0	0	6	15	33	29	13	5.2
Explains	0	1	8	22	29	27	10	5.0
Communicates	1	0	3	15	27	28	21	5.4
Teaching	0	1	2	20	29	30	14	5.2
Scholes:								
Presents	5	3	16	25	28	14	5	4.3
Explains	7	0	13	29	32	9	7	4.4
Communicates	8	4	11	30	21	17	6	4.3
Teaching	6	4	13	25	23	19	6	4.4
Course:								
Workload	0	0	0	50	31	14	2	4.7
Difficulty	0	0	1	38	32	19	6	4.9
Learn Exp	2	5	8	48	26	7	1	4.2

Schofield was an enthusiastic and organized teacher who made the effort to make the material interesting. However, his test and quizzes

# 16 CHEMISTRY

were somewhat difficult and students found his calculus emphasis difficult to follow.

Scholes often left classes early and many lectures were unprepared. Students disliked the multiple choice tests because they were poorly worded and too much emphasis was put on the theoretical aspects.

Instructor(s): D. Stone

Enr: 140			Resp		Retake: 40%			
	1	2	3	4	5	6	7	Mean
Presents	2	0	8	14	34	32	10	5.1
Explains	0	2	6	16	28	40	8	5.2
Communicates	0	0	2	12	26	40	18	5.6
Teaching	0	0	6	14	31	35	12	5.3
Workload	0	0	0	30	38	20	10	5.1
Difficulty	0	0	0	32	28	28	10	5.2
Learn Exp	2	5	12	30	35	10	2	4.3

Overall, the instructor was a good lecturer. However, there were discrepancies between the day and evening lectures in terms of material covered.

CHM 151Y1Y Chemistry: The Molecular Science

Instructor(s): A. Wooley

Enr: 88		•	Resp		Retake: 75%			
	1	2	3	4	5	6	7	Mean
Presents	4	6	13	30	28	8	8	4.3
Explains	4	4	17	17	39	8	8	4.4
Communicates	15	10	4	21	26	17	4	4.0
Teaching	4	4	15	26	26	19	4	4.4
Workload	0	0	4	53	35	4	2	4.5
Difficulty	0	0	0	33	37	28	0	5.0
Learn Exp	0	0	5	40	22	22	10	4.9

Students thought Wooley lacked enthusiasm which made it difficult to pay attention in lectures.

Instructor(s): R. Morris

Enr: 88			Resp	: 44	Retake: 75%			
	1	2	3	4	5	6	7	Mean
Presents	0	0	2	15	22	31	27	5.7
Explains	0	0	2	18	29	31	18	5.5
Communicates	0	4	0	15	22	29	27	5.5
Teaching	0	0	2	9	45	29	13	5.4
Workload	0	2	4	44	39	9	0	4.5
Difficulty	0	0	0	32	44	20	2	4.9
Learn Exp	0	0	5	37	25	22	8	4.9

Morris was an enthusiastic and interesting lecturer. The lecture slides were very clear and useful. The lab did not reflect the course too much.

CHM 217H1F Introduction to Analytical Chemistry

Instructor(s): S. Yuen

(-) -								
Enr: 25			Resp	: 18	Retake: 52%			
	1	2	3	4	5	6	7	Mean
Presents	0	0	5	11	44	22	16	5.3
Explains	0	0	5	33	22	22	16	5.1
Communicates	0	0	0	11	5	55	27	6.0
Teaching	0	0	0	0	33	38	27	5.9
Workload	0	0	0	5	16	38	38	6.1
Difficulty	0	0	5	27	44	16	5	4.9
Learn Exp	0	0	0	37	12	25	25	5.4

Students wished that the problem sets had been taken up during the course. Yuen was very enthusiastic and knew the material very well.

#### CHM 220H1F Physical Chemistry for Life Sciences

Instructor(s): A. Tanin

Enr: 311	Resp: 98						Retake: 30		
	1	2	3	4	5	6	7	Mean	
Presents	3	4	10	31	25	14	10	4.6	
Explains	5	7	29	23	20	7	7	4.0	
Communicates	5	1	14	26	32	13	6	4.5	
Teaching	4	1	14	29	28	14	8	4.5	
Workload	1	1	5	47	21	19	3	4.6	
Difficulty	1	1	2	22	35	27	9	5.1	
Learn Exp	1	5	8	50	15	11	7	4.4	

Students suggested that Tanin put his lecture notes online before the lectures so they could concentrate on his lecturing rather than copying down notes. Also, students wished he had given them more examples to help better illustrate the concepts.

Instructor(s): A. Tanin

Enr: 54			Resp	Resp: 23 Retake: 10%			take: 10%	
	1	2	3	4	5	6	7	Mean
Presents	4	4	4	26	30	17	13	4.8
Explains	4	4	17	34	21	13	4	4.2
Communicates	4	4	8	43	26	8	4	4.3
Teaching	4	4	4	39	26	8	13	4.6
Workload	0	4	4	47	33	4	4	4.4
Difficulty	0	0	0	22	50	18	9	5.1
Learn Exp	11	0	0	70	11	5	0	3.9

Many students complained that the lecture notes should have been on the web so they could have more time to listen instead of copying notes.

# CHM 223H1F Physical Chemistry for Pharmacy

Instructor(s): A. Tanin

Enr: 135	Resp: 32					Retake: 1		
	1	2	3	4	5	6	7	Mean
Presents	0	3	21	34	31	9	0	4.2
Explains	12	9	37	21	15	3	0	3.3
Communicates	9	9	9	31	31	3	6	4.0
Teaching	0	9	6	45	32	6	0	4.2
Workload	0	0	0	32	19	22	25	5.4
Difficulty	0	0	0	12	9	31	46	6.1
Learn Exp	10	0	21	57	10	0	0	3.6

# CHM 225Y1Y Introduction to Physical Chemistry

Instructor(s): R. Kapral; S. Whittington

Enr:			R	esp:				Retake:
	1	2	3	4	5	6	7	Mean
Kapral:								
Presents	0	6	13	13	13	33	20	5.1
Explains	6	0	12	18	18	25	18	4.9
Communicates	6	0	0	6	12	37	37	5.8
Teaching	6	6	0	6	20	40	20	5.3
Whittington:								
Presents	0	0	5	23	11	29	29	5.5
Explains	5	0	11	11	16	22	33	5.3
Communicates	5	0	0	5	11	38	38	5.9
Teaching	5	0	5	5	29	11	41	5.5
Course:								
Workload	0	5	0	29	41	11	11	4.9
Difficulty	0	0	0	17	29	35	17	5.5
Learn Exp	6	6	0	40	26	20	0	4.3

The course was very effective as a 200-level course and was very informative. However, TAs were not very helpful at times. Problem sets were too difficult and not on material thoroughly covered in class.

#### CHM 238Y1Y Introduction to Inorganic Chemistry

Instructor(s): S.	Browr	ning; I.	Manı	ners				
Enr: 62			Resp	: 27	Reta			ıke: 66%
	1	2	3	4	5	6	7	Mean
Browning:								
Presents	3	0	3	22	14	37	18	5.3
Explains	0	3	3	7	37	29	18	5.4
Communicates	0	3	0	14	3	37	40	5.9
Teaching	0	3	0	11	18	33	33	5.8
Manners:								
Presents	0	0	3	33	14	29	18	5.3
Explains	0	0	0	11	33	33	22	5.7
Communicates	0	3	0	25	18	22	29	5.4
Teaching	0	3	0	14	18	33	29	5.7
Course:								
Workload	0	0	7	53	23	15	0	4.5
Difficulty	0	0	3	61	23	11	0	4.4
Learn Exp	0	5	5	30	30	15	15	4.9

The instructors were very good.

Instructor	(s):	Н.	Miguez
------------	------	----	--------

Enr: 62			Resp	Retake: 60%				
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	11	18	44	25	5.9
Explains	0	0	0	18	25	44	11	5.5
Communicates	0	0	0	7	29	40	22	5.8
Teaching	0	0	0	11	18	48	22	5.8
Workload	0	0	0	52	38	9	0	4.6
Difficulty	0	0	0	61	19	19	0	4.6
Learn Exp	0	6	6	37	25	12	12	4.7

#### CHM 247H1F Introductory Organic Chemistry II

Instructor(s): A. Dicks

Enr: 136		F	Resp:		Retake: 51%			
	1	2	3	4	5	6	7	Mean
Presents	0	0	1	3	3	22	70	6.6
Explains	0	0	2	3	9	34	51	6.3
Communicates	0	0	0	4	8	32	55	6.4
Teaching	0	1	2	1	7	30	57	6.4
Workload	1	1	0	19	28	28	20	5.4
Difficulty	0	0	1	18	27	29	22	5.5
Learn Exp	1	3	1	25	17	35	14	5.2

Dicks was an excellent instructor who tended to his students' needs.

#### CHM 247H1S Introductory Organic Chemistry II

Instructor(s): A. Dicks

Enr: 352		F	Resp:	259		Re	take: 39%	
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	3	12	34	49	6.3
Explains	0	0	0	3	18	39	37	6.1
Communicates	0	0	0	3	14	35	46	6.2
Teaching	0	0	0	1	13	38	46	6.3
Workload	0	0	1	25	28	33	11	5.3
Difficulty	0	0	0	21	34	32	10	5.3
Learn Exp	0	1	10	39	28	15	4	4.6

Dicks was enthusiastic, humourous and many students thought he was their favourite chemistry instructor. He was very approachable even outside of his office hours. His organized and colour-coded lecture notes were appreciated by many students.

Instructor(s): A. Dicks

Enr: 146	Resp: 86						Ret	take: 37%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	1	9	37	51	6.4
Explains	0	1	0	2	15	41	40	6.2
Communicates	0	0	0	4	15	34	45	6.2
Teaching	0	0	1	3	10	37	47	6.3
Workload	0	0	0	18	38	33	9	5.3
Difficulty	0	1	0	19	37	30	11	5.3
Learn Exp	0	8	6	45	22	12	4	4.4

Dicks explained the material very clearly and in an organized manner. Many students said that Dicks was their favourite instructor. Students found the lecture notes clear and simple to understand. However, many students complained about the tutorial sessions

Overall, the course load was heavy but well-organized and useful.

#### CHM 249H1S Organic Chemistry

Instructor(s): R. Batey

Enr: 37	Resp: 23						Ret	Retake: 56% 7 Mean 13 5.3 17 5.5	
	1	2	3	4	5	6	7	Mean	
Presents	0	0	4	17	30	34	13	5.3	
Explains	0	0	4	8	39	30	17	5.5	
Communicates	0	0	4	4	21	34	34	5.9	
Teaching	0	0	4	8	17	47	21	5.7	
Workload	0	0	0	26	34	17	21	5.3	
Difficulty	0	0	0	17	30	47	4	5.4	
Learn Exp	5	0	0	41	17	17	17	4.9	

This course would have been better as a full year course because there was a lot of material. There was too much memorization and the midterm exam was too difficult.

# CHM 310H1S Environmental Chemistry

Instructor(s): S. Mabury

Enr: 68			Resp	: 37			Ref	take: 61%
	1	2	3	4	5	6	7	Mean
Presents	0	2	16	18	16	18	27	5.1
Explains	0	0	5	13	29	35	16	5.4
Communicates	0	0	0	0	8	27	63	6.6
Teaching	0	0	2	2	10	48	35	6.1
Workload	0	0	0	36	38	13	11	5.0
Difficulty	0	0	2	41	23	20	11	5.0
Learn Exp	0	0	3	17	34	31	13	5.3

Mabury was enthusiastic and made the material interesting. He was very approachable and was very good at responding to emails. Many students appreciated his recorded lectures. However, his handwriting was hard to follow and he was a bit unorganized. His assignments were long and difficult but made students do the work constantly. Overall, Mabury performed effectively as a university teacher.

# CHM 314Y1Y Introduction to Instrumental Methods of Analysis

Instructor(s): M. Thompson

Enr: 16			Resp	: 16		Ret	Retake: 72% 7 Mean 9 5.5	
	1	2	3	4	5	6	7	Mean
Presents	0	0	9	9	9	63	9	5.5
Explains	0	0	9	9	0	45	36	5.9
Communicates	0	0	0	9	0	27	63	6.5
Teaching	0	0	0	9	0	36	54	6.4
Workload	9	0	0	63	18	9	0	4.1
Difficulty	0	0	10	80	0	10	0	4.1
Learn Exp	0	11	0	11	44	0	33	5.2

Thompson was passionate and enthusiastic about the material. The labs well reflected the course material. Most students enjoyed his lectures and appreciated the learning experience.

Overall, Thompson performed effectively as a university teacher.

#### CHM 325H1S Materials Chemistry

Instructor(s): M. Mamak; I. Manners

Enr: 30			Resp		Reta	Retake: 61%		
	1	2	3	4	5	6	7	Mean
Mamak:								
Presents	2	2	6	27	30	23	6	4.8
Explains	2	6	11	32	27	16	2	4.3
Communicates	7	9	16	35	14	16	0	3.9
Teaching	2	7	28	35	14	7	4	3.9
Manners:								
Presents	0	0	9	11	30	39	9	5.3
Explains	0	2	9	13	37	30	6	5.0
Communicates	0	2	4	25	20	37	9	5.1
Teaching	2	2	2	20	37	30	4	5.0
Course:								
Workload	9	11	30	39	6	0	2	3.3
Difficulty	4	2	16	65	9	2	0	3.8
Learn Exp	2	16	19	30	19	11	0	3.8

Mamak was disorganized and he lacked presentation skills. Students felt that Mamak was too monotonous and he needed to make lectures more interesting.

Manners was an enthusiastic teacher and his use of overhead notes were useful and effective. Students felt that the test and exam had too much emphasis on memorization. Doing well in the course consisted of reproducing the lecture slides onto the exam paper.

# CHM 326H1F Introductory Quantum Mechanics and Spectroscopy

Instructor(s): D. Lidar

Enr: 14			Resp	: 11			Re	take: 72%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	0	45	27	27	5.8
Explains	0	0	0	9	27	36	27	5.8
Communicates	0	0	0	0	54	27	18	5.6
Teaching	0	0	0	0	45	18	36	5.9
Workload	0	0	0	27	27	27	18	5.4
Difficulty	0	0	0	18	45	18	18	5.4
Learn Exp	0	0	0	50	33	0	16	4.8

Lidar was well-liked and organized.

### CHM 328H1S Modern Physical Chemistry

Instructor(s): S. Whittington

Enr: 9	Resp: 8						Ret	ake: 75%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	0	12	50	37	6.2
Explains	0	0	0	12	12	37	37	6.0
Communicates	0	0	0	12	0	37	50	6.2
Teaching	0	0	0	0	12	25	62	6.5
Workload	0	0	0	75	12	12	0	4.4
Difficulty	0	0	0	25	50	12	12	5.1
Learn Exp	0	0	0	25	50	12	12	5.1

One student commented that the instructor was excellent! Presentation for basic material was good, especially for stat mechanics. Problem sets were good practice, however, it would have been better if there were more in-class examples.

#### CHM 338H1F Intermediate Inorganic Chemistry

Instructor(s): J. Powell

(-) -								
Enr: 23			Resp	: 22			Reta	ke: 66%
	1	2	3	4	5	6	7	Mean
Presents	0	0	4	0	40	40	13	5.6
Explains	0	0	0	9	22	36	31	5.9
Communicates	0	0	4	0	9	36	50	6.3
Teaching	0	0	0	4	22	54	18	5.9
Workload	0	0	0	4	0	27	68	6.6
Difficulty	0	0	0	18	31	27	22	5.5

Learn Exp 0 0 0 30 45 20 5 5.5

#### CHM 345H1S Modern Organic Synthesis

Instructor(s): A. Yudin

Enr: 14	Resp: 6						Re	take: 60%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	0	66	16	16	5.5
Explains	0	0	0	16	33	16	33	5.7
Communicates	0	0	0	16	16	16	50	6.0
Teaching	0	0	0	0	50	16	33	5.8
Workload	0	0	0	33	66	0	0	4.7
Difficulty	0	0	0	0	100	0	0	5.0
Learn Exp	0	0	0	33	0	33	33	5.7

#### CHM 346H1S Modern Organic Synthesis

Instructor(s): A. Yudin

Enr: 9	Resp: 6						Ret	ake: 66%
	1	2	3	4	5	6	7	Mean
Presents	0	16	0	33	33	16	0	4.3
Explains	0	16	0	16	16	50	0	4.8
Communicates	0	0	0	16	16	50	16	5.7
Teaching	0	0	0	33	16	50	0	5.2
Workload	0	0	0	33	33	0	33	5.3
Difficulty	0	0	0	33	33	33	0	5.0
Learn Exp	0	20	0	0	60	20	0	4.6

The course was reaction based and it could be complicated at times. However, the instructor made it very interesting.

# CHM 347H1F Organic Chemistry of Biological Compounds

Instructor(s): R. Kluger

Enr: 59	Resp: 45						Reta	Retake: 43% 7 Mean		
	1	2	3	4	5	6	7	Mean		
Presents	0	0	6	27	36	22	6	5.0		
Explains	0	0	13	37	25	20	2	4.6		
Communicates	0	2	2	15	27	34	18	5.4		
Teaching	0	0	2	38	36	18	4	4.8		
Workload	0	0	9	45	27	18	0	4.5		
Difficulty	0	0	2	47	22	25	2	4.8		
Learn Exp	0	0	10	48	20	15	5	4.6		

# CHM 348H1F Organic Reaction Mechanisms

Instructor(s): J. Chin

Enr: 33	Resp: 27						Ret	ake: 90%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	18	33	18	29	5.6
Explains	0	0	0	18	25	25	29	5.7
Communicates	0	0	0	11	22	37	29	5.9
Teaching	0	0	0	3	18	37	40	6.1
Workload	3	3	7	66	14	3	0	4.0
Difficulty	0	0	11	55	29	3	0	4.3
Learn Exp	0	0	4	43	21	17	13	4.9

Almost all the students loved Chin - he made time to explain the material during office hours.

# CHM 379H1S Biomolecular Chemistry

Instructor(s): D. Zamble

Enr: 17			Resp	: 13		Ret	ake: 44%	
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	0	38	38	23	5.8
Explains	0	0	0	0	46	30	23	5.8
Communicates	0	0	0	7	30	23	38	5.9
Teaching	0	0	0	0	33	41	25	5.9
Workload	0	0	0	84	7	7	0	4.2
Difficulty	0	0	0	76	15	7	0	4.3

Learn Exp 4.6

Students found the lectures well-organized and appreciated the marking scheme. Zamble was friendly and approachable but sometimes spoke too quickly. Students complained about lack of time for the term

#### CHM 410H1F Analytical Environmental Chemistry

Instructor(s): S. Mabury

Enr: 10			Res	p: 7		Reta	ke: 100%	
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	14	28	42	14	5.6
Explains	0	0	0	14	42	28	14	5.4
Communicates	0	0	0	0	42	28	28	5.9
Teaching	0	0	0	0	14	57	28	6.1
Workload	0	0	0	14	28	14	42	5.9
Difficulty	0	0	0	28	14	14	42	5.7
Learn Exp	0	0	0	0	20	40	40	6.2

Students liked the course and felt Mabury was very enthusiastic and interesting.

# CHM 415H1S Atmospheric Chemistry

Instructor(s): J. Abbatt

Enr: 29	Resp: 26						Re	take: 96%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	0	26	50	23	6.0
Explains	0	0	0	3	19	57	19	5.9
Communicates	0	0	0	3	11	42	42	6.2
Teaching	0	0	0	0	19	46	34	6.2
Workload	0	3	0	73	19	3	0	4.2
Difficulty	0	3	0	69	19	7	0	4.3
Learn Exp	0	0	0	14	38	33	14	5.5

Many students thought that Abbatt was a very good instructor who made the course interesting. The course was a great transition from fundamental chemistry to applied studies.

#### CHM 416H1S Separation Science

Instructor(s): D. Stone

Enr: 14			Resp	: 14			Re	take: 83%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	0	15	46	7	5.5
Explains	0	0	0	7	42	35	14	5.6
Communicates	0	0	0	0	15	76	7	5.9
Teaching	0	0	0	0	44	50	8	5.7
Workload	0	0	0	71	28	0	0	4.3
Difficulty	0	0	0	72	7	0	0	4.1
Learn Exp	0	0	11	33	22	22	11	4.9

Stone was enthusiastic and performed effectively as a university

# CHM 423H1F Applications of Quantum Mechanics

Instructor(s): R. Kapral

Enr: 7			Res	p: 7			Re	take: 57%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	14	57	14	14	5.3
Explains	0	0	0	28	57	14	0	4.9
Communicates	0	0	0	0	42	42	14	5.7
Teaching	0	0	0	0	57	28	14	5.6
Workload	0	0	0	0	42	42	14	5.7
Difficulty	0	0	0	0	0	57	42	6.4
Learn Exp	0	14	0	28	28	28	0	4.6

#### CHM 427H1F Statistical Mechanics

Instructor(s): J. Schofield

Enr: 10			Res	p: 9		Re	etake: 44%	
	1	2	3	4	5	6	7	Mean
Presents	33	0	0	11	33	11	11	3.9
Explains	11	22	0	11	33	22	0	4.0
Communicates	0	0	11	0	44	33	11	5.3
Teaching	11	11	11	0	22	33	11	4.6
Workload	0	0	0	22	44	0	33	5.4
Difficulty	0	0	0	0	11	22	66	6.6
Learn Exp	33	16	16	16	16	0	0	n/a

Many students felt that the course was difficult and the lecture material was hard to understand.

# CHM 432H1F Organometallic Chemistry

Instructor(s): J. Powell

Enr: 12			Resp	: 12		Retake: 100%		
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	36	27	9	27	5.3
Explains	0	0	0	9	54	0	36	5.6
Communicates	0	0	0	18	27	18	36	5.7
Teaching	0	0	9	0	54	9	27	5.5
Workload	0	0	10	10	40	30	10	5.2
Difficulty	0	0	0	30	30	40	0	4.4
Learn Exp	0	0	0	33	33	16	16	5.2

Most students enjoyed the course and liked Powell very much. A few felt the textbook wasn't of much use though.

# CHM 434H1F Solid State Materials Chemistry

Instructor(s): G. Ozin

` '								
Enr: 14			Resp	: 21			36 31 6.0 26 68 6.6 50 33 6.1 12 12 4.9 6 6 4.8	
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	16	16	38	27	5.8
Explains	0	0	0	0	31	36	31	6.0
Communicates	0	0	0	0	5	26	68	6.6
Teaching	0	0	0	5	11	50	33	6.1
Workload	0	0	0	43	31	12	12	4.9
Difficulty	0	0	0	43	43	6	6	4.8
Learn Exp	0	0	9	9	18	36	27	5.6

Students found Ozin to be a very good and enthusiastic instructor. He presented his material in a very organized fashion.

# CHM 437H1S Bio-Inorganic Chemistry

Instructor(s): R. Morris

Enr: 23	Resp: 12						Ret	ake: 72%
	1	2	3	4	5	6	7	Mean
Presents	0	0	0	25	50	8	16	5.2
Explains	0	0	0	8	50	33	8	5.4
Communicates	0	0	0	16	58	25	0	5.1
Teaching	0	0	0	8	41	33	16	5.6
Workload	0	0	8	50	33	8	0	4.4
Difficulty	0	8	0	58	25	8	0	4.2
Learn Exp	0	0	0	40	30	30	0	4.9

Morris was a very enthusiastic and approachable lecturer. The handouts and website were highly effective.

#### CHM 440H1F The Synthesis of Modern Pharmaceutical Agents

Instructor(s): M. Lautens

Enr: 14	Resp: 16						Retake: 92%		
	1	2	3	4	5	6	7	Mean	
Presents Explains	0	0 0	0 0	6 0	12 18	37 37	43 43	6.2 6.2	

# 20 CHEMISTRY

Communicates	0	0	0	0	50	43	6	5.6
Teaching	0	0	0	0	18	62	18	6.0
Workload	0	0	0	50	31	12	6	4.8
Difficulty	0	0	0	31	31	25	12	5.2
Learn Exp	0	0	0	8	50	16	25	5.6

Students found Lautens to be a very good lecturer, who clearly explained the concepts, but sometimes too quickly.

# CHM 441H1F Spectroscopic Analysis in Organic Chemistry

Instructor(s): W. Reynolds; R. Batey

Enr: 20			Resp	Retake: 76%				
	1	2	3	4	5	6	7	Mean
Reynolds:								
Presents	0	0	0	23	47	23	4	5.1
Explains	0	0	4	28	33	33	0	5.0
Communicates	0	0	0	23	42	19	14	5.2
Teaching	0	0	4	19	42	33	0	5.0
Batey:								
Presents	0	0	9	0	27	45	18	5.6
Explains	0	4	0	9	45	31	9	5.3
Communicates	0	0	4	22	27	40	4	5.2
Teaching	0	0	9	9	18	59	4	5.4
Course:								
Workload	0	0	0	68	27	4	0	4.4
Difficulty	0	0	4	50	31	9	4	4.6
Learn Exp	0	5	5	35	29	17	5	4.6

Instructor(s): A. Yudin

Enr: 20			Resp	: 18	Retake: 73%			
	1	2	3	4	5	6	7	Mean
Presents	0	0	5	44	33	11	5	4.7
Explains	0	0	0	27	41	17	11	5.1
Communicates	0	0	0	17	41	17	23	5.5
Teaching	0	0	0	11	44	27	16	5.5
Workload	0	0	0	76	17	5	0	4.3
Difficulty	0	0	5	52	23	11	5	4.6
Learn Exp	0	10	10	20	30	20	10	4.7

Students felt Yudin was an overall good teacher and very enthusiastic although. Some thought he rushed through certain sections.

# CHM 443H1S Physical Organic Chemistry

Instructor(s): A. Dicks

Enr: 16	Resp: 13					Retake: 100%			
	1	2	3	4	5	6	7	Mean	
Presents	0	0	0	0	0	0	100	7.0	
Explains	0	0	0	0	0	23	76	6.8	
Communicates	0	0	0	0	0	30	69	6.7	
Teaching	0	0	0	0	0	23	76	6.8	
Workload	0	0	7	53	38	0	0	4.3	
Difficulty	0	0	0	46	38	7	7	4.8	
Learn Exp	0	0	0	7	23	38	30	5.9	

Students felt that Dicks was one of the most effective instructors. He made a difficult course enjoyable and was very approachable. Students found the photocopied lecture notes in the library very helpful.

# CHM 447H1S Bio-organic Chemistry

Instructor(s): A. Wooley

(-)		,								
Enr: 28	Resp: 26						Retake: 75%			
	1	2	3	4	5	6	7	Mean		
Presents	0	0	3	15	26	38	15	5.5		
Explains	0	0	4	8	28	48	12	5.6		
Communicates	0	0	0	16	24	44	16	5.6		
Teaching	0	0	4	4	28	44	20	5.7		
Workload	0	0	12	60	24	4	0	4.2		
Difficulty	0	0	4	48	40	8	0	4.5		

Learn Exp 0 0 0 30 35 20 15 5.2

Wooley was very approachable and presented the material in an enthusiastic manner. He was willing to help students.