

Course Schedule - Fall 2005

Chemistry

101 **Introductory Chemistry** Credit: 3 hours.

(CHEM 100) Introduction to the basic concepts and language of chemistry; lectures, discussions, and lab. Preparatory chemistry course for students who require additional background before enrolling in CHEM 102. This course has been approved for graduation credit for all students in the College of LAS. Students in other colleges should check with their college office. Prerequisite: 2.5 years of high school mathematics, or credit or concurrent registration in MATH 012.

This course satisfies the General Education Criteria for a Physical Sciences course.

Students may not take CHEM 101 as part of their general education sequence in physical science. Students must register for one lab-discussion and one lecture section.

CRN	Type	Section	Time	Days	Location	Instructor
36153	discussion-recitation	ADA	09:00 AM - 09:50 AM	F	room 132 Davenport Hall	
36153: Physical Sciences course.						
	laboratory	ADA	08:00 AM - 09:50 AM	R	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36158	discussion-recitation	ADB	10:00 AM - 10:50 AM	F	room 211 Davenport Hall	
36158: Physical Sciences course.						
	laboratory	ADB	08:00 AM - 09:50 AM	R	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36164	discussion-recitation	ADC	10:00 AM - 10:50 AM	F	room 212 Davenport Hall	
36164: Physical Sciences course.						
	laboratory	ADC	08:00 AM - 09:50 AM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36168	discussion-recitation	ADD	11:00 AM - 11:50 AM	F	room 211 Davenport Hall	
36168: Physical Sciences course.						
	laboratory	ADD	10:00 AM - 11:50 AM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36172	discussion-recitation	ADE	12:00 PM - 12:50 PM	F	room 164 Noyes Laboratory	

36172: Physical Sciences course.						
	laboratory	ADE	12:00 PM - 01:50 PM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36186	discussion-recitation	ADF	12:00 PM - 12:50 PM	F	room 162 Noyes Laboratory	
36186: Physical Sciences course.						
	laboratory	ADF	04:00 PM - 05:50 PM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36189	discussion-recitation	ADG	01:00 PM - 01:50 PM	F	room 212 Davenport Hall	
36189: Physical Sciences course.						
	laboratory	ADG	02:00 PM - 03:50 PM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36191	discussion-recitation	ADH	02:00 PM - 02:50 PM	F	room 212 Davenport Hall	
36191: Physical Sciences course.						
	laboratory	ADH	02:00 PM - 03:50 PM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36193	discussion-recitation	ADI	01:00 PM - 01:50 PM	F	room 162 Noyes Laboratory	
36193: Physical Sciences course.						
	laboratory	ADI	10:00 AM - 11:50 AM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36195	discussion-recitation	ADJ	09:00 AM - 09:50 AM	F	room 211 Davenport Hall	
36195: Physical Sciences course.						
	laboratory	ADJ	08:00 AM - 09:50 AM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36197	discussion-recitation	ADK	11:00 AM - 11:50 AM	F	room 164 Noyes Laboratory	
36197: Physical Sciences course.						
	laboratory	ADK	12:00 PM - 01:50 PM	W	room 101	Lee, J; Adams, G

			PM		Chemistry Annex	
: Physical Sciences course.						
36199	discussion-recitation	ADL	02:00 PM - 02:50 PM	F	room 164 Noyes Laboratory	
36199: Physical Sciences course.						
	laboratory	ADL	04:00 PM - 05:50 PM	W	room 101 Chemistry Annex	Lee, J; Adams, G
: Physical Sciences course.						
36151	lecture	AL1	02:00 PM - 02:50 PM	TR	room 100 Noyes Laboratory	Lee, J; Adams, G
36151: Physical Sciences course.						
41899	discussion-recitation	BDA	08:00 AM - 08:50 AM	F	room 164 Noyes Laboratory	
41899: Physical Sciences course.						
	laboratory	BDA	09:00 AM - 10:50 AM	R	room 304 Noyes Laboratory	Lee, J
: Physical Sciences course.						
41900	discussion-recitation	BDB	04:00 PM - 04:50 PM	F	room 300 Noyes Laboratory	
41900: Physical Sciences course.						
	laboratory	BDB	09:00 AM - 10:50 AM	R	room 8 Chemistry Annex	Lee, J
: Physical Sciences course.						
41901	discussion-recitation	BDC	10:00 AM - 10:50 AM	F	room 329 Gregory Hall	
41901: Physical Sciences course.						
	laboratory	BDC	08:00 AM - 09:50 AM	W	room 145 Lincoln Hall	Lee, J
: Physical Sciences course.						
41902	discussion-recitation	BDD	08:00 AM - 08:50 AM	F	room 211 Davenport Hall	
41902: Physical Sciences course.						
	laboratory	BDD	10:00 AM - 11:50 AM	W	room 145 Lincoln Hall	Jeong, D
: Physical Sciences course.						
41903	discussion-recitation	BDE	12:00 PM - 12:50 PM	F	room 212 Davenport Hall	
41903: Physical Sciences course.						

	laboratory	BDE	02:00 PM - 03:50 PM	W	room 145 Lincoln Hall	Lee, J
: Physical Sciences course.						
41904	discussion-recitation	BDF	10:00 AM - 10:50 AM	F	room 164 Noyes Laboratory	
41904: Physical Sciences course.						
	laboratory	BDF	04:00 PM - 05:50 PM	W	room 145 Lincoln Hall	Lee, J
: Physical Sciences course.						
41905	discussion-recitation	BDG	09:00 AM - 09:50 AM	F	room 162 Noyes Laboratory	
41905: Physical Sciences course.						
	laboratory	BDG	12:00 PM - 01:50 PM	W	room 162 Lincoln Hall	Lee, J
: Physical Sciences course.						
41906	discussion-recitation	BDH	01:00 PM - 01:50 PM	F	room 336 Davenport Hall	
41906: Physical Sciences course.						
	laboratory	BDH	10:00 AM - 11:50 AM	W	room 140 Lincoln Hall	Lee, J
: Physical Sciences course.						
41907	discussion-recitation	BDI	03:00 PM - 03:50 PM	F	room 162 Noyes Laboratory	
41907: Physical Sciences course.						
	laboratory	BDI	04:00 PM - 05:50 PM	W	room 162 Lincoln Hall	Lee, J
: Physical Sciences course.						
41908	discussion-recitation	BDJ	03:00 PM - 03:50 PM	F	room 164 Noyes Laboratory	Lee, J
41908: Physical Sciences course.						
	laboratory	BDJ	08:00 AM - 09:50 AM	W	room 140 Lincoln Hall	Lee, J
: Physical Sciences course.						
41909	discussion-recitation	BDK	04:00 PM - 04:50 PM	F	room 301 Noyes Laboratory	
41909: Physical Sciences course.						
	laboratory	BDK	12:00 PM - 01:50 PM	W	room 145 Lincoln Hall	Lee, J

: Physical Sciences course.						
41910	discussion-recitation	BDL	02:00 PM - 02:50 PM	F	room 211 Davenport Hall	
41910: Physical Sciences course.						
	laboratory	BDL	02:00 PM - 03:50 PM	W	room 162 Lincoln Hall	Lee, J
: Physical Sciences course.						
41897	lecture	BL1	08:00 AM - 08:50 AM	TR	room 100 Noyes Laboratory	Lee, J
41897: Physical Sciences course.						
38877	discussion-recitation	L2	09:00 AM - 09:50 AM	F	room 211 Davenport Hall	
38877: Physical Sciences course.						
	laboratory	L2	08:00 AM - 09:50 AM	W	room 101 Chemistry Annex	
: Physical Sciences course.						
: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38989	lecture	LC	02:00 PM - 02:50 PM	TR	room 100 Noyes Laboratory	Decoste, D; Adams, G
38989: Physical Sciences course.						
38989: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						

102 **General Chemistry I** Credit: 3 hours.

For students who have some prior knowledge of chemistry. Principles governing atomic structure, bonding, states of matter, stoichiometry, and chemical equilibrium; descriptive chemistry of the elements and coordination compounds. Students may not receive credit for both CHEM 102 and CHEM 202. Prerequisite: Credit in or exemption from MATH 012; one year of high school chemistry or equivalent.

This course satisfies the General Education Criteria for a Physical Sciences course.

All students enrolled in CHEM 102 should also enroll in CHEM 103. Students must register in either a single lecture-discussion section or a combination of one lecture and one quiz section beginning with the same letter.

CRN	Type	Section	Time	Days	Location	Instructor
42853	lecture-discussion	11D	08:00 AM - 08:50 AM	TWRF	room 19 Noyes Laboratory	Hummel, T
42853: Physical Sciences course.						
36175	lecture-discussion	12D	09:00 AM - 09:50 AM	TWRF	room 19 Noyes Laboratory	Hummel, T
36175: Physical Sciences course.						

36176	lecture-discussion	13D	10:00 AM - 10:50 AM	TWRF	room 19 Noyes Laboratory	Hummel, T
36176: Physical Sciences course.						
36177	lecture-discussion	14D	11:00 AM - 11:50 AM	TWRF	room 19 Noyes Laboratory	Hummel, T
36177: Physical Sciences course.						
36178	lecture-discussion	15D	12:00 PM - 12:50 PM	TWRF	room 19 Noyes Laboratory	
36178: Physical Sciences course.						
36230	lecture-discussion	16D	01:00 PM - 01:50 PM	TWRF	room 19 Noyes Laboratory	Hummel, T
36230: Physical Sciences course.						
36179	lecture-discussion	17D	02:00 PM - 02:50 PM	TWRF	room 19 Noyes Laboratory	Hummel, T
36179: Physical Sciences course.						
41950	lecture-discussion	18D	03:00 PM - 03:50 PM	TWRF	room 19 Noyes Laboratory	Hummel, T
41950: Physical Sciences course.						
36180	lecture-discussion	21D	08:00 AM - 08:50 AM	TWRF	room 204 Noyes Laboratory	Hummel, T
36180: Physical Sciences course.						
36232	lecture-discussion	22D	09:00 AM - 09:50 AM	TWRF	room 204 Noyes Laboratory	Hummel, T
36232: Physical Sciences course.						
36234	lecture-discussion	23D	10:00 AM - 10:50 AM	TWRF	room 204 Noyes Laboratory	Hummel, T
36234: Physical Sciences course.						
36237	lecture-discussion	24D	11:00 AM - 11:50 AM	TWRF	room 204 Noyes Laboratory	Hummel, T
36237: Physical Sciences course.						
36241	lecture-discussion	25D	12:00 PM - 12:50 PM	TWRF	room 204 Noyes Laboratory	Hummel, T
36241: Physical Sciences course.						
36242	lecture-discussion	26D	01:00 PM - 01:50 PM	TWRF	room 204 Noyes Laboratory	Hummel, T
36242: Physical Sciences course.						
36245	lecture-discussion	27D	02:00 PM - 02:50 PM	TWRF	room 204 Noyes Laboratory	Hummel, T

36245: Physical Sciences course.						
36181	lecture-discussion	28D	03:00 PM - 03:50 PM	TWRF	room 204 Noyes Laboratory	Hummel, T
36181: Physical Sciences course.						
36182	lecture-discussion	32D	09:00 AM - 09:50 AM	TWRF	room 9 Chemistry Annex	Hummel, T
36182: Physical Sciences course.						
36250	lecture-discussion	34D	11:00 AM - 11:50 AM	TWRF	room 9 Chemistry Annex	Hummel, T
36250: Physical Sciences course.						
36184	lecture-discussion	35D	12:00 PM - 12:50 PM	TWRF	room 9 Chemistry Annex	Hummel, T
36184: Physical Sciences course.						
36272	lecture-discussion	36D	01:00 PM - 01:50 PM	TWRF	room 9 Chemistry Annex	Hummel, T
36272: Physical Sciences course.						
36185	lecture-discussion	37D	02:00 PM - 02:50 PM	TWRF	room 9 Chemistry Annex	Hummel, T
36185: Physical Sciences course.						
42855	lecture-discussion	38D	03:00 PM - 03:50 PM	TWRF	room 9 Chemistry Annex	Hummel, T
42855: Physical Sciences course.						
36187	lecture-discussion	41D	08:00 AM - 08:50 AM	TWRF	room 203 Noyes Laboratory	Hummel, T
36187: Physical Sciences course.						
36207	lecture-discussion	42D	09:00 AM - 09:50 AM	TWRF	room 203 Noyes Laboratory	Hummel, T
36207: Physical Sciences course.						
36208	lecture-discussion	43D	10:00 AM - 10:50 AM	TWRF	room 203 Noyes Laboratory	Hummel, T
36208: Physical Sciences course.						
36220	lecture-discussion	44D	11:00 AM - 11:50 AM	TWRF	room 203 Noyes Laboratory	Hummel, T
36220: Physical Sciences course.						
36223	lecture-discussion	45D	12:00 PM - 12:50 PM	TWRF	room 203 Noyes Laboratory	Hummel, T
36223: Physical Sciences course.						
36225	lecture-	46D	01:00 PM - 01:50 PM	TWRF	room 203 Noyes	Hummel, T

	discussion		PM		Laboratory	
36225: Physical Sciences course.						
36226	lecture-discussion	47D	02:00 PM - 02:50 PM	TWRF	room 203 Noyes Laboratory	Hummel, T
36226: Physical Sciences course.						
36228	lecture-discussion	48D	03:00 PM - 03:50 PM	TWRF	room 203 Noyes Laboratory	Hummel, T
36228: Physical Sciences course.						
36203	lecture	AL1	10:00 AM - 10:50 AM	TR	room 100 Noyes Laboratory	Kelter, P
36203: Physical Sciences course.						
36203: Designed for Engineering Students.						
36204	quiz	AQ1	08:00 AM - 08:50 AM	WF	room 8 Chemistry Annex	Kelter, P
36204: Physical Sciences course.						
36204: Designed for Engineering Students.						
36205	quiz	AQ2	09:00 AM - 09:50 AM	WF	room 152 Chemistry Annex	Kelter, P
36205: Physical Sciences course.						
36205: Designed for Engineering Students.						
36206	quiz	AQ3	10:00 AM - 10:50 AM	WF	room 152 Chemistry Annex	Kelter, P
36206: Physical Sciences course.						
36206: Designed for Engineering Students.						
36210	quiz	AQ4	10:00 AM - 10:50 AM	WF	room 300 Noyes Laboratory	
36210: Physical Sciences course.						
36210: Designed for Engineering Students.						
36212	quiz	AQ5	11:00 AM - 11:50 AM	WF	room 300 Noyes Laboratory	Kelter, P
36212: Physical Sciences course.						
36212: Designed for Engineering Students.						
36213	quiz	AQ6	12:00 PM - 12:50 PM	WF	room 304 Noyes Laboratory	Kelter, P
36213: Physical Sciences course.						
36213: Designed for Engineering Students.						

36214	quiz	AQ7	12:00 PM - 12:50 PM	WF	room 300 Noyes Laboratory	Kelter, P
36214: Physical Sciences course.						
36214: Designed for Engineering Students.						
36215	quiz	AQ8	01:00 PM - 01:50 PM	WF	room 300 Noyes Laboratory	Kelter, P
36215: Physical Sciences course.						
36215: Designed for Engineering Students.						
36216	quiz	AQ9	02:00 PM - 02:50 PM	WF	room 304 Noyes Laboratory	Kelter, P
36216: Physical Sciences course.						
36216: Designed for Engineering Students.						
36217	quiz	AQA	02:00 PM - 02:50 PM	WF	room 300 Noyes Laboratory	Kelter, P
36217: Physical Sciences course.						
36217: Designed for Engineering Students.						
36219	quiz	AQB	09:00 AM - 09:50 AM	WF	room 301 Noyes Laboratory	Kelter, P
36219: Physical Sciences course.						
36219: Designed for Engineering Students.						
36221	quiz	AQC	03:00 PM - 03:50 PM	WF	room 300 Noyes Laboratory	Kelter, P
36221: Physical Sciences course.						
36221: Designed for Engineering Students.						
36222	quiz	AQD	03:00 PM - 03:50 PM	WF	room 304 Noyes Laboratory	Kelter, P
36222: Physical Sciences course.						
36222: Designed for Engineering Students.						
44023	quiz	AQJ	01:00 PM - 02:50 PM	WF	room 209 Noyes Laboratory	Adams, G
44023: Physical Sciences course.						
44023: Departmental Approval Required Restricted to Merit Workshop only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199). Departmental Approval Required. Class will be held in 209 Noyes.						
36109	lecture	BL1	12:00 PM - 12:50 PM	TR	room 100 Noyes Laboratory	Hummel, T
36109: Physical Sciences course.						

36133	quiz	BQ1	08:00 AM - 08:50 AM	WF	room 304 Noyes Laboratory	Hummel, T
36133: Physical Sciences course.						
36134	quiz	BQ2	09:00 AM - 09:50 AM	WF	room 304 Noyes Laboratory	Hummel, T
36134: Physical Sciences course.						
36135	quiz	BQ3	10:00 AM - 10:50 AM	WF	room 304 Noyes Laboratory	Hummel, T
36135: Physical Sciences course.						
36136	quiz	BQ4	08:00 AM - 08:50 AM	WF	room 300 Noyes Laboratory	Hummel, T
36136: Physical Sciences course.						
36138	quiz	BQ5	10:00 AM - 10:50 AM	WF	room 301 Noyes Laboratory	Hummel, T
36138: Physical Sciences course.						
36139	quiz	BQ6	01:00 PM - 01:50 PM	WF	room 152 Chemistry Annex	Hummel, T
36139: Physical Sciences course.						
36140	quiz	BQ7	03:00 PM - 03:50 PM	WF	room 8 Chemistry Annex	Hummel, T
36140: Physical Sciences course.						
36141	quiz	BQ8	04:00 PM - 04:50 PM	WF	room 8 Chemistry Annex	Hummel, T
36141: Physical Sciences course.						
36142	quiz	BQ9	09:00 AM - 09:50 AM	WF	room 300 Noyes Laboratory	Hummel, T
36142: Physical Sciences course.						
36143	quiz	BQA	02:00 PM - 02:50 PM	WF	room 303 Noyes Laboratory	Hummel, T
36143: Physical Sciences course.						
36144	quiz	BQB	03:00 PM - 03:50 PM	WF	room 303 Noyes Laboratory	Hummel, T
36144: Physical Sciences course.						
36146	quiz	BQD	01:00 PM - 01:50 PM	WF	room 304 Noyes Laboratory	Hummel, T
36146: Physical Sciences course.						
44062	quiz	BQG	09:00 AM - 09:50 AM	MW	room 5 FAR - Food Service Bldg	

44062: Physical Sciences course.						
36148	lecture	CL1	10:00 AM - 10:50 AM	MW	room 100 Noyes Laboratory	Harwood, W
36148: Physical Sciences course.						
36150	quiz	CQ1	10:00 AM - 10:50 AM	TR	room 300 Noyes Laboratory	Harwood, W
36150: Physical Sciences course.						
36152	quiz	CQ2	11:00 AM - 11:50 AM	TR	room 300 Noyes Laboratory	Harwood, W
36152: Physical Sciences course.						
36154	quiz	CQ3	12:00 PM - 12:50 PM	TR	room 300 Noyes Laboratory	Harwood, W
36154: Physical Sciences course.						
36156	quiz	CQ4	01:00 PM - 01:50 PM	TR	room 300 Noyes Laboratory	Harwood, W
36156: Physical Sciences course.						
36159	quiz	CQ5	02:00 PM - 02:50 PM	TR	room 300 Noyes Laboratory	Harwood, W
36159: Physical Sciences course.						
36160	quiz	CQ6	09:00 AM - 09:50 AM	TR	room 301 Noyes Laboratory	Harwood, W
36160: Physical Sciences course.						
36162	quiz	CQ7	10:00 AM - 10:50 AM	TR	room 301 Noyes Laboratory	Harwood, W
36162: Physical Sciences course.						
36163	quiz	CQ8	11:00 AM - 11:50 AM	TR	room 301 Noyes Laboratory	Harwood, W
36163: Physical Sciences course.						
36165	quiz	CQ9	12:00 PM - 12:50 PM	TR	room 301 Noyes Laboratory	Harwood, W
36165: Physical Sciences course.						
36167	quiz	CQA	01:00 PM - 01:50 PM	TR	room 301 Noyes Laboratory	Harwood, W
36167: Physical Sciences course.						
36169	quiz	CQB	02:00 PM - 02:50 PM	TR	room 301 Noyes Laboratory	Harwood, W
36169: Physical Sciences course.						
36171	quiz	CQC	09:00 AM - 10:50 AM	TR	room 111 Noyes	Adams, G

			AM		Laboratory	
36171: Physical Sciences course.						
36171: Departmental Approval Required Merit Workshops only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199).						
36173	quiz	CQD	11:00 AM - 12:50 PM	TR	room 111 Noyes Laboratory	Adams, G
36173: Physical Sciences course.						
36173: Departmental Approval Required Merit Workshops only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199).						
40124	quiz	CQE	09:00 AM - 10:50 AM	TR	room 209 Noyes Laboratory	Adams, G
40124: Physical Sciences course.						
40124: Departmental Approval Required Merit Workshops only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199).						
38903	lecture-discussion	L11	10:00 AM - 10:50 AM	TWRF	room 204 Noyes Laboratory	
38903: Physical Sciences course.						
38903: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38906	lecture-discussion	L12	11:00 AM - 11:50 AM	TWRF	room 9 Chemistry Annex	
38906: Physical Sciences course.						
38906: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38909	lecture-discussion	L13	02:00 PM - 02:50 PM	TWRF	room 204 Noyes Laboratory	
38909: Physical Sciences course.						
38909: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38912	lecture-discussion	L14	09:00 AM - 09:50 AM	TWRF	room 204 Noyes Laboratory	
38912: Physical Sciences course.						
38912: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38882	lecture-discussion	L4	01:00 PM - 01:50 PM	TWRF	room 204 Noyes Laboratory	
38882: Physical Sciences course.						
38882: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						

38885	lecture-discussion	L5	12:00 PM - 12:50 PM	TWRF	room 204 Noyes Laboratory	
38885: Physical Sciences course.						
38885: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						

103 General Chemistry Lab I Credit: 1 hours.

(CHEM 105) Laboratory studies to accompany CHEM 102. Prerequisite: Credit or concurrent registration in CHEM 102 is required.

This course satisfies the General Education Criteria for a Physical Sciences course.

CHEM 103 is the laboratory course that accompanies CHEM 102. Students may not receive credit for both CHEM 103 and CHEM 203. Engineering students must obtain a dean's approval to drop this course after the second week of instruction.

CRN	Type	Section	Time	Days	Location	Instructor
36375	laboratory	1	02:00 PM - 04:50 PM	F	room 1 Chemistry Annex	Denofrio, L
36375: Physical Sciences course.						
36400	laboratory	10	11:00 AM - 01:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36400: Physical Sciences course.						
36402	laboratory	11	11:00 AM - 01:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36402: Physical Sciences course.						
36406	laboratory	12	02:00 PM - 04:50 PM	M	room 1 Chemistry Annex	Denofrio, L
36406: Physical Sciences course.						
36573	laboratory	13	02:00 PM - 04:50 PM	M	room 1 Chemistry Annex	Denofrio, L
36573: Physical Sciences course.						
36409	laboratory	14	02:00 PM - 04:50 PM	T	room 1 Chemistry Annex	Denofrio, L
36409: Physical Sciences course.						
36410	laboratory	15	02:00 PM - 04:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36410: Physical Sciences course.						
36413	laboratory	16	02:00 PM - 04:50 PM	W	room 1 Chemistry Annex	Denofrio, L
36413: Physical Sciences course.						
36415	laboratory	17	02:00 PM - 04:50 PM	W	room 1	Denofrio, L

			PM		Chemistry Annex	
36415: Physical Sciences course.						
36418	laboratory	18	02:00 PM - 04:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36418: Physical Sciences course.						
36420	laboratory	19	02:00 PM - 04:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36420: Physical Sciences course.						
36575	laboratory	20	02:00 PM - 04:50 PM	T	room 1 Chemistry Annex	Denofrio, L
36575: Physical Sciences course.						
36578	laboratory	21	08:00 AM - 10:50 AM	M	room 1 Chemistry Annex	Denofrio, L
36578: Physical Sciences course.						
36580	laboratory	22	08:00 AM - 10:50 AM	M	room 1 Chemistry Annex	Denofrio, L
36580: Physical Sciences course.						
36424	laboratory	23	08:00 AM - 10:50 AM	R	room 201 Chemistry Annex	Denofrio, L
36424: Physical Sciences course.						
36376	laboratory	3	08:00 AM - 10:50 AM	R	room 1 Chemistry Annex	Denofrio, L
36376: Physical Sciences course.						
36429	laboratory	31	11:00 AM - 01:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36429: Physical Sciences course.						
36431	laboratory	32	11:00 AM - 01:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36431: Physical Sciences course.						
36433	laboratory	33	11:00 AM - 01:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36433: Physical Sciences course.						
36437	laboratory	34	11:00 AM - 01:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36437: Physical Sciences course.						
36440	laboratory	35	11:00 AM - 01:50 PM	W	room 201 Chemistry Annex	Denofrio, L
36440: Physical Sciences course.						

36377	laboratory	4	02:00 PM - 04:50 PM	F	room 1 Chemistry Annex	Denofrio, L
36377: Physical Sciences course.						
36583	laboratory	41	02:00 PM - 04:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36583: Physical Sciences course.						
36585	laboratory	42	02:00 PM - 04:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36585: Physical Sciences course.						
36467	laboratory	43	08:00 AM - 10:50 AM	M	room 201 Chemistry Annex	Denofrio, L
36467: Physical Sciences course.						
36468	laboratory	44	02:00 PM - 04:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36468: Physical Sciences course.						
36471	laboratory	45	02:00 PM - 04:50 PM	W	room 201 Chemistry Annex	Denofrio, L
36471: Physical Sciences course.						
36473	laboratory	46	02:00 PM - 04:50 PM	W	room 201 Chemistry Annex	Denofrio, L
36473: Physical Sciences course.						
42864	laboratory	47	08:00 AM - 10:50 AM	M	room 201 Chemistry Annex	Denofrio, L
42864: Physical Sciences course.						
36378	laboratory	5	08:00 AM - 10:50 AM	F	room 1 Chemistry Annex	Denofrio, L
36378: Physical Sciences course.						
36586	laboratory	51	08:00 AM - 10:50 AM	M	room 201 Chemistry Annex	Denofrio, L
36586: Physical Sciences course.						
36475	laboratory	52	08:00 AM - 10:50 AM	M	room 201 Chemistry Annex	Denofrio, L
36475: Physical Sciences course.						
36476	laboratory	53	08:00 AM - 10:50 AM	R	room 201 Chemistry Annex	Denofrio, L
36476: Physical Sciences course.						
36380	laboratory	6	08:00 AM - 10:50 AM	F	room 1 Chemistry Annex	Denofrio, L

36380: Physical Sciences course.						
36479	laboratory	61	11:00 AM - 01:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36479: Physical Sciences course.						
36481	laboratory	62	11:00 AM - 01:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36481: Physical Sciences course.						
36490	laboratory	63	11:00 AM - 01:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36490: Physical Sciences course.						
36493	laboratory	64	11:00 AM - 01:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36493: Physical Sciences course.						
36495	laboratory	65	11:00 AM - 01:50 PM	W	room 201 Chemistry Annex	Denofrio, L
36495: Physical Sciences course.						
36393	laboratory	7	11:00 AM - 01:50 PM	M	room 1 Chemistry Annex	Denofrio, L
36393: Physical Sciences course.						
36589	laboratory	71	02:00 PM - 04:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36589: Physical Sciences course.						
36591	laboratory	72	02:00 PM - 04:50 PM	M	room 201 Chemistry Annex	Denofrio, L
36591: Physical Sciences course.						
36497	laboratory	73	02:00 PM - 04:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36497: Physical Sciences course.						
36500	laboratory	74	02:00 PM - 04:50 PM	T	room 201 Chemistry Annex	Denofrio, L
36500: Physical Sciences course.						
36503	laboratory	75	02:00 PM - 04:50 PM	W	room 201 Chemistry Annex	Denofrio, L
36503: Physical Sciences course.						
36510	laboratory	76	02:00 PM - 04:50 PM	W	room 201 Chemistry Annex	Denofrio, L
36510: Physical Sciences course.						
42865	laboratory	80	02:00 PM - 04:50	F	room 1	Denofrio, L

			PM		Chemistry Annex	
42865: Physical Sciences course.						
36515	laboratory	81	08:00 AM - 10:50 AM	M	room 1 Chemistry Annex	Denofrio, L
36515: Physical Sciences course.						
36520	laboratory	83	08:00 AM - 10:50 AM	R	room 1 Chemistry Annex	Denofrio, L
36520: Physical Sciences course.						
42867	laboratory	84	11:00 AM - 01:50 PM	R	room 1 Chemistry Annex	Denofrio, L
42867: Physical Sciences course.						
36524	laboratory	85	08:00 AM - 10:50 AM	F	room 1 Chemistry Annex	Denofrio, L
36524: Physical Sciences course.						
36532	laboratory	86	08:00 AM - 10:50 AM	F	room 1 Chemistry Annex	Denofrio, L
36532: Physical Sciences course.						
36534	laboratory	87	11:00 AM - 01:50 PM	M	room 1 Chemistry Annex	Denofrio, L
36534: Physical Sciences course.						
36539	laboratory	88	11:00 AM - 01:50 PM	T	room 1 Chemistry Annex	Denofrio, L
36539: Physical Sciences course.						
42868	laboratory	89	11:00 AM - 01:50 PM	W	room 1 Chemistry Annex	Denofrio, L
42868: Physical Sciences course.						
36542	laboratory	90	11:00 AM - 01:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36542: Physical Sciences course.						
36546	laboratory	91	02:00 PM - 04:50 PM	F	room 1 Chemistry Annex	Denofrio, L
36546: Physical Sciences course.						
36548	laboratory	92	02:00 PM - 04:50 PM	M	room 1 Chemistry Annex	Denofrio, L
36548: Physical Sciences course.						
36551	laboratory	93	02:00 PM - 04:50 PM	M	room 1 Chemistry Annex	Denofrio, L
36551: Physical Sciences course.						

36554	laboratory	94	02:00 PM - 04:50 PM	T	room 1 Chemistry Annex	Denofrio, L
36554: Physical Sciences course.						
36558	laboratory	95	02:00 PM - 04:50 PM	T	room 1 Chemistry Annex	Denofrio, L
36558: Physical Sciences course.						
36562	laboratory	96	02:00 PM - 04:50 PM	W	room 1 Chemistry Annex	Denofrio, L
36562: Physical Sciences course.						
36564	laboratory	97	02:00 PM - 04:50 PM	W	room 1 Chemistry Annex	Denofrio, L
36564: Physical Sciences course.						
36567	laboratory	98	02:00 PM - 04:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36567: Physical Sciences course.						
36571	laboratory	99	02:00 PM - 04:50 PM	R	room 1 Chemistry Annex	Denofrio, L
36571: Physical Sciences course.						
38904	laboratory	L11	08:00 AM - 10:50 AM	M	room 1 Chemistry Annex	Denofrio, L
38904: Physical Sciences course.						
38904: Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38907	laboratory	L12	08:00 AM - 10:50 AM	M	room 201 Chemistry Annex	Denofrio, L
38907: Physical Sciences course.						
38907: Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
41842	laboratory	L13	02:00 PM - 04:50 PM	M	room 201 Chemistry Annex	Denofrio, L
41842: Physical Sciences course.						
41842: Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
40913	laboratory	L14	02:00 PM - 04:50 PM	M	room 1 Chemistry Annex	Denofrio, L
40913: Physical Sciences course.						
40913: Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38883	laboratory	L4	02:00 PM - 04:50 PM	M	room 201	Denofrio, L

			PM		Chemistry Annex	
38883: Physical Sciences course.						
38883: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38886	laboratory	L5	02:00 PM - 04:50 PM	M	room 201 Chemistry Annex	Denofrio, L
38886: Physical Sciences course.						
38886: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						

104 **General Chemistry II** Credit: 3 hours.

(CHEM 102) Lecture and discussions. Section B (Biological Version): Chemistry of organic and biochemical systems, chemical energetics and equilibrium, chemical kinetics, and reaction mechanisms. Section P (Engineering Version): Chemistry of materials, including organic and biological substances, chemical energetics and equilibrium, chemical kinetics, and solids and crystals. Students may not receive credit for both CHEM 104 and CHEM 204. Prerequisite: CHEM 102 or CHEM 202 or advanced placement credit for one semester of college-level chemistry.

This course satisfies the General Education Criteria for a Physical Sciences course.

All students enrolled in CHEM 104 should also enroll in CHEM 105. Students must register for one quiz and one lecture section. Engineering students must obtain a dean's approval to drop this course after the second week of instruction. Students must register for one lecture and one quiz section beginning with the same letter.

CRN	Type	Section	Time	Days	Location	Instructor
36274	lecture	AL1	09:00 AM - 09:50 AM	TR	room 100 Noyes Laboratory	Yerkes, C
36274: Physical Sciences course.						
36274: Designed for students in the Life Sciences and related areas.						
36279	quiz	AQ1	08:00 AM - 08:50 AM	WF	room 301 Noyes Laboratory	Yerkes, C
36279: Physical Sciences course.						
36296	quiz	AQ2	11:00 AM - 11:50 AM	WF	room 301 Noyes Laboratory	Yerkes, C
36296: Physical Sciences course.						
36298	quiz	AQ3	12:00 PM - 12:50 PM	WF	room 301 Noyes Laboratory	Yerkes, C
36298: Physical Sciences course.						
36300	quiz	AQ4	01:00 PM - 01:50 PM	WF	room 301 Noyes Laboratory	Yerkes, C
36300: Physical Sciences course.						
36302	quiz	AQ5	02:00 PM - 02:50 PM	WF	room 301 Noyes Laboratory	Yerkes, C
36302: Physical Sciences course.						

36305	quiz	AQ6	03:00 PM - 03:50 PM	WF	room 301 Noyes Laboratory	Yerkes, C
36305: Physical Sciences course.						
36308	quiz	AQ7	08:00 AM - 08:50 AM	WF	room 303 Noyes Laboratory	Yerkes, C
36308: Physical Sciences course.						
36310	quiz	AQ8	09:00 AM - 09:50 AM	WF	room 303 Noyes Laboratory	Yerkes, C
36310: Physical Sciences course.						
36338	quiz	AQ9	10:00 AM - 10:50 AM	WF	room 303 Noyes Laboratory	Yerkes, C
36338: Physical Sciences course.						
36340	quiz	AQA	11:00 AM - 11:50 AM	WF	room 303 Noyes Laboratory	Yerkes, C
36340: Physical Sciences course.						
36342	quiz	AQB	12:00 PM - 12:50 PM	WF	room 303 Noyes Laboratory	Yerkes, C
36342: Physical Sciences course.						
36344	quiz	AQC	01:00 PM - 01:50 PM	WF	room 303 Noyes Laboratory	Yerkes, C
36344: Physical Sciences course.						
36349	quiz	AQE	01:00 PM - 02:50 PM	WF	room 111 Noyes Laboratory	Adams, G
36349: Physical Sciences course.						
36349: Departmental Approval Required Departmental Approval Required. Merit Workshops only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (see CHEM 199).						
41189	quiz	AQF	11:00 AM - 12:50 PM	WF	room 111 Noyes Laboratory	Adams, G
41189: Physical Sciences course.						
41189: Departmental Approval Required Departmental Approval Required. Merit Workshops only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (see CHEM 199).						
36351	lecture	BL1	09:00 AM - 09:50 AM	TR	room 152 Chemistry Annex	Yerkes, C
36351: Physical Sciences course.						
36351: Designed for students in the Life Sciences and related areas.						
36354	quiz	BQ1	04:00 PM - 04:50 PM	WF	room 152 Chemistry Annex	Yerkes, C

36354: Physical Sciences course.						
36355	lecture	CL1	03:00 PM - 03:50 PM	MW	room 100 Noyes Laboratory	Lehmann, V
36355: Physical Sciences course.						
36355: Designed for most engineering students.						
36358	quiz	CQ1	10:00 AM - 10:50 AM	TR	room 152 Chemistry Annex	Lehmann, V
36358: Physical Sciences course.						
36360	quiz	CQ2	12:00 PM - 12:50 PM	TR	room 152 Chemistry Annex	Lehmann, V
36360: Physical Sciences course.						
36366	quiz	CQ3	01:00 PM - 01:50 PM	TR	room 152 Chemistry Annex	Lehmann, V
36366: Physical Sciences course.						
36368	quiz	CQ4	02:00 PM - 02:50 PM	TR	room 152 Chemistry Annex	Lehmann, V
36368: Physical Sciences course.						
36372	quiz	CQ5	08:00 AM - 08:50 AM	TR	room 152 Chemistry Annex	Lehmann, V
36372: Physical Sciences course.						
41953	quiz	CQ6	10:00 AM - 10:50 AM	TR	room 9 Chemistry Annex	Lehmann, V
41953: Physical Sciences course.						
42857	quiz	CQ7	12:00 PM - 12:50 PM	TR	room 8 Chemistry Annex	Lehmann, V
42857: Physical Sciences course.						
45612	quiz	CQ8	09:00 AM - 09:50 AM	TR	room 303 Noyes Laboratory	Lehmann, V
45612: Physical Sciences course.						
45614	quiz	CQA	01:00 PM - 01:50 PM	TR	room 303 Noyes Laboratory	Lehmann, V
45614: Physical Sciences course.						
45615	quiz	CQB	02:00 PM - 02:50 PM	TR	room 303 Noyes Laboratory	Lehmann, V
45615: Physical Sciences course.						
45643	quiz	CQC	03:00 PM - 03:50 PM	TR	room 152 Chemistry Annex	Lehmann, V
45643: Physical Sciences course.						

105 General Chemistry Lab II Credit: 1 hours.

Laboratory studies to accompany CHEM 104. Prerequisite: CHEM 102 and CHEM 103; credit or concurrent registration in CHEM 104 is required.

This course satisfies the General Education Criteria for a Physical Sciences course.

CHEM 105 is the laboratory course that accompanies CHEM 104. Students may not receive credit for both CHEM 105 and CHEM 205. Engineering students must obtain a dean's approval to drop this course after the second week of instruction.

CRN	Type	Section	Time	Days	Location	Instructor
36593	laboratory	11L	08:00 AM - 10:50 AM	F	room 101 Chemistry Annex	Le, A; Yerkes, C
36593: Physical Sciences course.						
36593: *Biological version: For students in the Life Sciences and related areas.						
36684	laboratory	15E	08:00 AM - 10:50 AM	F	room 101 Chemistry Annex	Le, A; Yerkes, C
36684: Physical Sciences course.						
36684: *Engineering version.						
36597	laboratory	21L	08:00 AM - 10:50 AM	F	room 101 Chemistry Annex	Le, A; Yerkes, C
36597: Physical Sciences course.						
36597: *Biological version: For students in the Life Sciences and related areas.						
36599	laboratory	41L	11:00 AM - 01:50 PM	M	room 101 Chemistry Annex	Le, A; Yerkes, C
36599: Physical Sciences course.						
36599: *Biological version: For students in the Life Sciences and related areas.						
36601	laboratory	42L	11:00 AM - 01:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
36601: Physical Sciences course.						
36601: *Biological version: For students in the Life Sciences and related areas.						
36686	laboratory	44E	11:00 AM - 01:50 PM	R	room 101 Chemistry Annex	Le, A; Yerkes, C
36686: Physical Sciences course.						
36686: *Engineering version.						
36604	laboratory	51L	11:00 AM - 01:50 PM	M	room 101 Chemistry Annex	Le, A; Yerkes, C
36604: Physical Sciences course.						
36604: *Biological version: For students in the Life Sciences and related areas.						

36609	laboratory	52L	11:00 AM - 01:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
36609: Physical Sciences course.						
36609: *Biological version: For students in the Life Sciences and related areas.						
36612	laboratory	62L	11:00 AM - 01:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
36612: Physical Sciences course.						
36612: *Biological version: For students in the Life Sciences and related areas.						
42869	laboratory	63L	11:00 AM - 01:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
42869: Physical Sciences course.						
42869: *Biological version: For students in the Life Sciences and related areas.						
36617	laboratory	71L	02:00 PM - 04:50 PM	M	room 101 Chemistry Annex	Le, A; Yerkes, C
36617: Physical Sciences course.						
36617: *Biological version: For students in the Life Sciences and related areas.						
36676	laboratory	72L	02:00 PM - 04:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
36676: Physical Sciences course.						
36676: *Biological version: For students in the Life Sciences and related areas.						
36687	laboratory	74E	02:00 PM - 04:50 PM	R	room 101 Chemistry Annex	Le, A; Yerkes, C
36687: Physical Sciences course.						
36687: *Engineering version.						
41954	laboratory	75E	02:00 PM - 04:50 PM	F	room 101 Chemistry Annex	Le, A; Yerkes, C
41954: Physical Sciences course.						
41954: *Engineering version.						
36678	laboratory	81L	02:00 PM - 04:50 PM	M	room 101 Chemistry Annex	Le, A; Yerkes, C
36678: Physical Sciences course.						
36678: *Biological version: For students in the Life Sciences and related areas.						
36679	laboratory	82L	02:00 PM - 04:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
36679: Physical Sciences course.						
36679: *Biological version: For students in the Life Sciences and related areas.						

36689	laboratory	84E	02:00 PM - 04:50 PM	R	room 101 Chemistry Annex	Le, A; Yerkes, C
36689: Physical Sciences course.						
36689: *Engineering version.						
41955	laboratory	85E	02:00 PM - 04:50 PM	F	room 101 Chemistry Annex	Le, A; Yerkes, C
41955: Physical Sciences course.						
41955: *Engineering version.						
36681	laboratory	91L	02:00 PM - 04:50 PM	M	room 101 Chemistry Annex	Le, A; Yerkes, C
36681: Physical Sciences course.						
36681: *Biological version: For students in the Life Sciences and related areas.						
36683	laboratory	92L	02:00 PM - 04:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
36683: Physical Sciences course.						
36683: *Biological version: For students in the Life Sciences and related areas.						
42870	laboratory	93L	02:00 PM - 04:50 PM	M	room 101 Chemistry Annex	Le, A; Yerkes, C
42870: Physical Sciences course.						
42870: *Biological version: For students in the Life Sciences and related areas.						
45645	laboratory	94E	02:00 PM - 04:50 PM	R	room 101 Chemistry Annex	Le, A; Yerkes, C
45645: Physical Sciences course.						
45645: *Engineering version.						
42871	laboratory	94L	02:00 PM - 04:50 PM	T	room 101 Chemistry Annex	Le, A; Yerkes, C
42871: Physical Sciences course.						
42871: *Biological version: For students in the Life Sciences and related areas.						
45647	laboratory	95E	02:00 PM - 04:50 PM	F	room 101 Chemistry Annex	Le, A; Yerkes, C
45647: Physical Sciences course.						
45647: *Engineering version.						

199 **Undergraduate Open Seminar** Credit: 1 to 5 hours.
 (CHEM 199) May be repeated. Approved for both letter and S/U grading.

CRN	Type	Section	Time	Days	Location	Instructor
10505	independent study		ARRANGED			
10505: Departmental Approval Required						
43653	conference	K	ARRANGED			Denofrio, L
43653: 2 hours Departmental Approval Required Students will work to administer the Kids and Chemistry Outreach program. Students will work hands-on with elementary age children as well as train their peers to work in elementary school classrooms. Students will create new curricula, improve past curricula, maintain the materials for the program, and share administrative duties such as scheduling classroom visits and training sessions.						
31588	discussion-recitation	M	ARRANGED			Adams, G
31588: 1 hours Students in Merit Workshop sections must register in 1 hour CHEM 199 credit concurrent with enrollment in the appropriate course.						
45143	discussion-recitation	P	03:00 PM - 03:50 PM	F	room ARR Chemical and Life Sci Lab	Suslick, K
45143: 1 hours Discovery course. Topic: Chemical Perspectives. First Year Discovery Program Course. Designed for freshman students concurrently enrolled in at least one General Chemistry course (Chem 102-Chem 203) who are interested in state-of-the-art Chemistry and faculty research. Students should enroll in only one Discovery course. Students who enroll in more than one Discovery course may be dropped from the additional Discovery courses. For course descriptions, see the Discovery Program booklet. This class will be held in ROOM A414 CLSL (Chemical Life Sciences Laboratory).						
31573	conference	S	05:00 PM - 06:30 PM	M	room 161 Noyes Laboratory	Miller, J
31573: 2 hours Science Education and Research for Children. Students will work two hours per week in classroom or after-school settings to engage children in hands-on-science activities. An additional two hours are devoted to developing activities and materials.						

202 **Accelerated Chemistry I** Credit: 3 hours.

(CHEM 107) Lectures and discussions. Beginning chemistry course for students in the chemical sciences and others with strong high school chemistry and mathematics preparation. Chemical calculations, structure, bonding and equilibrium. Credit toward graduation is received for CHEM 202 only if CHEM 203 is also completed. Prerequisite: Admission by U of I placement test or consent of adviser; credit or concurrent registration in MATH 220; concurrent registration in CHEM 203.

This course satisfies the General Education Criteria for a Physical Sciences course.

Students must register for one lecture and one quiz section beginning with the same letter. Engineering students must obtain a dean's approval to drop this course after the second week of instruction.

CRN	Type	Section	Time	Days	Location	Instructor
36229	lecture	AL1	11:00 AM - 11:50 AM	TR	room 100 Noyes Laboratory	Decoste, D
36229: Physical Sciences course.						
36236	quiz	AQ1	09:00 AM - 09:50 AM	WF	room 8 Chemistry Annex	Decoste, D

36236: Physical Sciences course.						
36238	quiz	AQ2	10:00 AM - 10:50 AM	WF	room 8 Chemistry Annex	Decoste, D
36238: Physical Sciences course.						
36239	quiz	AQ3	12:00 PM - 12:50 PM	WF	room 8 Chemistry Annex	Decoste, D
36239: Physical Sciences course.						
36244	quiz	AQ4	02:00 PM - 02:50 PM	WF	room 8 Chemistry Annex	Decoste, D
36244: Physical Sciences course.						
36248	quiz	AQ6	12:00 PM - 12:50 PM	WF	room 152 Chemistry Annex	Decoste, D
36248: Physical Sciences course.						
36252	quiz	AQ8	11:00 AM - 11:50 AM	WF	room 8 Chemistry Annex	Decoste, D
36252: James Scholars, and Physical Sciences course.Designated for James Scholars.						
36254	quiz	AQ9	01:00 PM - 01:50 PM	WF	room 8 Chemistry Annex	Decoste, D
36254: James Scholars, and Physical Sciences course.Designated for James Scholars.						
36256	quiz	AQA	09:00 AM - 10:50 AM	WF	room 111 Noyes Laboratory	Adams, G
36256: Physical Sciences course.Departmental Approval RequiredRestricted to Merit Workshop only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199).						
36257	quiz	AQB	08:00 AM - 08:50 AM	WF	room 152 Chemistry Annex	Decoste, D
36257: Physical Sciences course.						
36258	quiz	AQC	11:00 AM - 11:50 AM	WF	room 152 Chemistry Annex	Decoste, D
36258: Physical Sciences course.						
36259	quiz	AQD	02:00 PM - 02:50 PM	WF	room 152 Chemistry Annex	Decoste, D
36259: Physical Sciences course.						
44024	quiz	AQF	09:00 AM - 10:50 AM	WF	room 209 Noyes Laboratory	Adams, G
44024: Physical Sciences course.Departmental Approval RequiredRestricted to Merit Workshop only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199).						
38900	quiz	L10	02:00 PM - 02:50 PM	WF	room 152 Chemistry Annex	Decoste, D

38900: Physical Sciences course.Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to <http://www.las.uiuc.edu/learningcommunity/>

38894	quiz	L8	11:00 AM - 11:50 AM	WF	room 152 Chemistry Annex	
-------	------	----	---------------------	----	-----------------------------	--

38894: Physical Sciences course.Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to <http://www.las.uiuc.edu/learningcommunity/>

38990	lecture	LC	11:00 AM - 11:50 AM	TR	room 100 Noyes Laboratory	Decoste, D
-------	---------	----	---------------------	----	------------------------------	------------

38990: Physical Sciences course.Advisor Approval RequiredReserved for incoming freshmen only. If you have questions about your qualifications for this program please go to <http://www.las.uiuc.edu/learningcommunity/>

203 **Accelerated Chemistry Lab I** Credit: 2 hours.

Companion laboratory course to CHEM 202. Comprehensive skills-oriented approach to learning laboratory technique and safety. Students may receive no more than two credit hours for both this course and Chemistry 103. Prerequisite: Concurrent registration or credit in CHEM 202 or consent of instructor.

Students must register for one lab and one lecture section beginning with the same letter. Engineering students must obtain a dean's approval to drop this course after the second week of instruction.

CRN	Type	Section	Time	Days	Location	Instructor
36267	laboratory	AB1	08:00 AM - 11:50 AM	M	room 310 Chemistry Annex	Denofrio, L; Lu, Y
36267: James Scholars course.Designated for James Scholars.						
36277	laboratory	AB2	01:00 PM - 04:50 PM	T	room 310 Chemistry Annex	Denofrio, L; Lu, Y
36280	laboratory	AB3	01:00 PM - 04:50 PM	T	room 310 Chemistry Annex	Denofrio, L
36290	laboratory	AB4	08:00 AM - 11:50 AM	M	room 310 Chemistry Annex	Denofrio, L
38843	laboratory	AB5	01:00 PM - 04:50 PM	M	room 310 Chemistry Annex	Denofrio, L
36299	laboratory	AB6	01:00 PM - 04:50 PM	M	room 310 Chemistry Annex	Denofrio, L
36265	lecture	AL1	01:00 PM - 01:50 PM	R	room 100 Noyes Laboratory	Denofrio, L; Lu, Y
36284	laboratory	BB1	01:00 PM - 04:50 PM	W	room 310 Chemistry Annex	Denofrio, L
36286	laboratory	BB2	01:00 PM - 04:50 PM	W	room 310 Chemistry Annex	Denofrio, L
36293	laboratory	BB3	01:00 PM - 04:50 PM	R	room 310 Chemistry Annex	Denofrio, L
36293: James Scholars course.Designated for James Scholars.						
36294	laboratory	BB4	01:00 PM - 04:50 PM	R	room 310	Denofrio, L; Lu, Y

			PM		Chemistry Annex	
36294: James Scholars course. Designated for James Scholars.						
36301	laboratory	BB5	08:00 AM - 11:50 AM	F	room 310 Chemistry Annex	Denofrio, L; Lu, Y
42859	laboratory	BB6	08:00 AM - 11:50 AM	F	room 310 Chemistry Annex	Denofrio, L; Lu, Y
38842	lecture	BL1	01:00 PM - 01:50 PM	T	room 100 Noyes Laboratory	Denofrio, L; Lu, Y
38901	laboratory	L10	08:00 AM - 11:50 AM	F	room 310 Chemistry Annex	Denofrio, L; Lu, Y
38901: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38895	laboratory	L8	01:00 PM - 04:50 PM	M	room 310 Chemistry Annex	Denofrio, L; Lu, Y
38895: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38991	lecture	LCA	01:00 PM - 01:50 PM	R	room 100 Noyes Laboratory	Denofrio, L; Lu, Y
38991: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						
38992	lecture	LCB	01:00 PM - 01:50 PM	T	room 100 Noyes Laboratory	Denofrio, L; Lu, Y
38992: Advisor Approval Required Reserved for incoming freshmen only. If you have questions about your qualifications for this program please go to http://www.las.uiuc.edu/learningcommunity/						

222 **Quantitative Analysis Lecture** Credit: 2 hours.

(CHEM 223) Fundamentals of quantitative analysis, chemical equilibrium and kinetics. This lecture course is intended to accompany CHEM 223. Students with credit in CHEM 222 can receive credit for CHEM 203 but not for CHEM 121. Prerequisite: CHEM 104 and CHEM 105 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
29906	lecture	A	11:00 AM - 11:50 AM	MW	room 100 Noyes Laboratory	Wieckowski, A

223 **Quantitative Analysis Lab** Credit: 1 hours.

(CHEM 224) Laboratory course covers the fundamentals of quantitative analysis, equilibrium and kinetics. Students with credit in CHEM 223 cannot receive credit for CHEM 203 or 121. Prerequisite: Credit or concurrent registration in CHEM 222.

Register for one Quiz and Laboratory combination.

CRN	Type	Section	Time	Days	Location	Instructor
-----	------	---------	------	------	----------	------------

31599	laboratory	AB1	01:00 PM - 04:50 PM	T	room 301 Chemistry Annex	Bohn, P
31602	laboratory	AB2	01:00 PM - 04:50 PM	W	room 301 Chemistry Annex	Bohn, P
31605	laboratory	AB3	01:00 PM - 04:50 PM	R	room 301 Chemistry Annex	Bohn, P
31611	quiz	AQ1	11:00 AM - 11:50 AM	F	room 100 Noyes Laboratory	Bohn, P

232 Elementary Organic Chemistry I Credit: 3 hours.

(CHEM 231) Presents elementary structural and synthetic chemistry with emphasis on applications of this material to closely related areas. For students in agricultural, nutritional and biological sciences, as well as premedical, pre dental, and preveterinary programs. One-term survey course; may be followed by CHEM 332. Students may not receive credit for both CHEM 232 and CHEM 236. Prerequisite: CHEM 104 and CHEM 105, or CHEM 204.

CRN	Type	Section	Time	Days	Location	Instructor
31612	lecture	A	08:00 AM - 08:50 AM	MWF	room 100 Noyes Laboratory	Van Der Donk, W
31613	lecture	B	09:00 AM - 09:50 AM	MWF	room 100 Noyes Laboratory	Miller, L

233 Elementary Organic Chem Lab I Credit: 2 hours.

(CHEM 234) Basic laboratory techniques in organic chemistry are presented with emphasis on experiments of interest to closely related areas. For students in agricultural science, dairy technology, food technology, nutrition, dietetics, premedical, pre dental, and preveterinary programs. Students may not receive credit for both CHEM 233 and CHEM 237. Prerequisite: Credit or concurrent registration in CHEM 232.

Students must register for one lab and one lecture section.

CRN	Type	Section	Time	Days	Location	Instructor
36318	laboratory	AB1	01:00 PM - 04:50 PM	M	room 467 Noyes Laboratory	Miller, L
36320	laboratory	AB2	08:00 AM - 11:50 AM	T	room 467 Noyes Laboratory	Miller, L
36322	laboratory	AB3	08:00 AM - 11:50 AM	T	room 250 Noyes Laboratory	Miller, L
36323	laboratory	AB4	01:00 PM - 04:50 PM	T	room 467 Noyes Laboratory	Miller, L
36325	laboratory	AB5	09:00 AM - 12:50 PM	W	room 467 Noyes Laboratory	Miller, L
36326	laboratory	AB6	01:00 PM - 04:50 PM	W	room 467 Noyes Laboratory	Miller, L
36327	laboratory	AB7	08:00 AM - 11:50 AM	R	room 467 Noyes	Miller, L

			AM		Laboratory	
36328	laboratory	AB8	01:00 PM - 04:50 PM	R	room 467 Noyes Laboratory	Miller, L
36331	laboratory	AB9	01:00 PM - 04:50 PM	F	room 467 Noyes Laboratory	Miller, L
41877	laboratory	ABA	01:00 PM - 04:50 PM	M	room 250 Noyes Laboratory	Miller, L
45683	laboratory	ABB	01:00 PM - 04:50 PM	W	room 250 Noyes Laboratory	Miller, L
36313	lecture	AL1	09:00 AM - 09:50 AM	R	room 103 Mumford Hall	Miller, L
36315	lecture	AL2	03:00 PM - 03:50 PM	R	room 100 Noyes Laboratory	Miller, L
36317	lecture	AL3	01:00 PM - 01:50 PM	F	room 103 Mumford Hall	Miller, L

236 *Fundamental Organic Chem I* Credit: 4 hours.

(CHEM 236) Fundamental structural, synthetic, and mechanistic organic chemistry is presented. For students whose major is chemistry or for those in the specialized curricula in chemistry or chemical engineering. The first term of a two-term integrated sequence (to be followed by CHEM 436). This lecture course is intended to accompany CHEM 237. Students may not receive credit for both CHEM 232 and CHEM 236. Prerequisite: CHEM 204, CHEM 121 or CHEM 222 through CHEM 223.

Students must register for one discussion and one lecture section.

CRN	Type	Section	Time	Days	Location	Instructor
36335	discussion-recitation	AD1	01:00 PM - 02:50 PM	T	room 111 Noyes Laboratory	
36335: Departmental Approval Required Restricted to Merit Workshops only. Call 244-8279 for information. Concurrent enrollment for 1 hour credit in the Merit Section of CHEM 199 is required (See CHEM 199).						
36336	discussion-recitation	AD2	10:00 AM - 10:50 AM	T	room 304 Noyes Laboratory	Gin, D
36359	discussion-recitation	AD3	12:00 PM - 12:50 PM	T	room 164 Noyes Laboratory	Gin, D
36364	discussion-recitation	AD4	12:00 PM - 12:50 PM	W	room 162 Noyes Laboratory	Gin, D
36371	discussion-recitation	AD6	10:00 AM - 10:50 AM	R	room 303 Noyes Laboratory	Gin, D
36332	lecture	AL1	09:00 AM - 09:50 AM	MWF	room 116 Roger Adams Laboratory	Gin, D

237 *Structure and Synthesis* Credit: 2 hours.

(CHEM 237) Laboratory course introduces synthesis and the basic techniques for the separation, isolation and

purification of organic and inorganic compounds. Students may not receive credit for both CHEM 237 and CHEM 233. Prerequisite: Credit or concurrent registration in CHEM 236.

Students must register for one lab and one lecture section.

CRN	Type	Section	Time	Days	Location	Instructor
36436	laboratory	AB1	01:00 PM - 04:50 PM	T	room 250 Noyes Laboratory	Gin, M
36439	laboratory	AB2	01:00 PM - 04:50 PM	T	room 250 Noyes Laboratory	Gin, M
36442	laboratory	AB3	01:00 PM - 04:50 PM	W	room 250 Noyes Laboratory	Gin, M
36444	laboratory	AB4	08:00 AM - 11:50 AM	R	room 250 Noyes Laboratory	Gin, M
36446	laboratory	AB5	01:00 PM - 04:50 PM	R	room 250 Noyes Laboratory	Gin, M
36447	laboratory	AB6	01:00 PM - 04:50 PM	R	room 250 Noyes Laboratory	Gin, M
36374	lecture	AL1	09:00 AM - 09:50 AM	T	room 112 Chemistry Annex	Gin, M
36434	lecture	AL2	02:00 PM - 02:50 PM	T	room 161 Noyes Laboratory	Gin, M

291 Cooperative Education Planning Credit: 0 hours.

(CHEM 201) On-campus planning and discussion of cooperative work-study education programs in industry and government. Each chemistry or chemical engineering student participating in the cooperative education program must register for CHEM 291/CHBE 201 or CHBE 202 each term (CHBE 201 if on-campus, CHBE 202 if off-campus). Same as CHBE 201. Approved for both letter and S/U grading. Prerequisite: Acceptance into the School of Chemical Sciences Cooperative Education Program.

CRN	Type	Section	Time	Days	Location	Instructor
36304	discussion-recitation	1	ARRANGED			Williams, D; Mirarefi, A

293 Cooperative Education Practice Credit: 0 hours.

(CHEM 202) Off-campus cooperative practice of chemistry or chemical engineering in industrial or governmental facilities. Each chemistry or chemical engineering student participating in cooperative education must register for CHEM 293 for each off-campus term. Same as CHBE 202. Approved for both letter and S/U grading. Prerequisite: Acceptance into the School of Chemical Sciences Cooperative Education Program.

CRN	Type	Section	Time	Days	Location	Instructor
36309	practice	1	ARRANGED			Williams, D

295 Chemistry Internship Credit: 0 hours.

(CHEM 210) Full-time practice of chemical science in an off-campus industrial setting or research laboratory environment. Summary report required. May be repeated. Approved for both letter and S/U grading. Prerequisite: Completion of freshman year or equivalent, or consent of Director of Cooperative Education in Chemistry.

CRN	Type	Section	Time	Days	Location	Instructor
29912	practice	A	ARRANGED			Williams, D
29912: Departmental Approval Required						
29912: Restricted to Chemistry majors only. Departmental approval required. Please see Debe Williams in 105 Noyes.						

312 Inorganic Chemistry Credit: 3 hours.

(CHEM 315) Basic chemical bonding in molecules, introduction to symmetry, chemistry of the main group elements, coordination chemistry of the transition elements, organometallic chemistry, solid state chemistry, bioinorganic chemistry, chemistry of the lanthanide and actinide elements. Prerequisite: CHEM 232 or CHEM 236.

CRN	Type	Section	Time	Days	Location	Instructor
29907	lecture	A	09:00 AM - 09:50 AM	MWF	room 217 Noyes Laboratory	Shapley, P

315 Instrumental Chem Systems Lab Credit: 2 hours.

(CHEM 319) Laboratory course emphasizes the application of modern instrumental techniques for characterizing the kinetic behavior and equilibrium properties of chemical systems. Prerequisite: Either CHEM 237 or both CHEM 223 and CHEM 233. Class Section Information: Students must register for one lab and one quiz section.

CRN	Type	Section	Time	Days	Location	Instructor
31615	laboratory	AB1	08:00 AM - 11:50 AM	T	room 157 Noyes Laboratory	Gewirth, A
31616	laboratory	AB2	01:00 PM - 04:50 PM	T	room 157 Noyes Laboratory	Gewirth, A
31617	laboratory	AB3	01:00 PM - 04:50 PM	W	room 157 Noyes Laboratory	Gewirth, A
31618	laboratory	AB4	01:00 PM - 04:50 PM	R	room 157 Noyes Laboratory	Gewirth, A
31619	laboratory	AB5	01:00 PM - 04:50 PM	F	room 157 Noyes Laboratory	Gewirth, A
31620	quiz	AQ1	04:00 PM - 04:50 PM	M	room 217 Noyes Laboratory	Gewirth, A

332 Elementary Organic Chem II Credit: 3 hours.

(CHEM 331) Second course; lectures covering topics in organic chemistry with special applications to the life sciences. This course should not be taken by students who have completed CHEM 236. Students may not receive credit for both CHEM 332 and CHEM 436. Prerequisite: CHEM 232 and CHEM 233.

CRN	Type	Section	Time	Days	Location	Instructor
29909	lecture	W	08:00 AM - 08:50 AM	MWF	room 228 Natural History Bldg	Moore, J

420 Instrumental Characterization Credit: 2 hours.

(CHEM 321) Lecture course covers the fundamentals of instrumental characterization including: nuclear magnetic resonance spectroscopy, potentiometry, voltammetry, atomic and molecular spectroscopy, mass spectrometry, activation analysis, electron and x-ray spectroscopy, and gas and liquid chromatography. Prerequisite: CHEM 440; or credit or concurrent registration in CHEM 442; or consent of the instructor.

CRN	Type	Section	Time	Days	Location	Instructor
29908	lecture	A	12:00 PM - 12:50 PM	WF	room 217 Noyes Laboratory	Kelleher, N

436 Fundamental Organic Chem II Credit: 3 hours.

(CHEM 336) Course is the second term of a two-term integrated sequence and should be taken the term following enrollment in CHEM 236. Students may not receive credit for both CHEM 436 and CHEM 332. Prerequisite: CHEM 236 and CHEM 237; students who have completed CHEM 232 and CHEM 233 may be enrolled with consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
29914	lecture	A	11:00 AM - 11:50 AM	MWF	room 304 Noyes Laboratory	Beak, P

437 Organic Chemistry Lab Credit: 3 hours.

(CHEM 337) Laboratory experiments in organic chemistry with emphasis on synthesis. Prerequisite: CHEM 233 or CHEM 237 and credit or concurrent registration in CHEM 332 or CHEM 436.

CRN	Type	Section	Time	Days	Location	Instructor
31621	laboratory	AB1	01:00 PM - 04:50 PM	R	room 219 Noyes Laboratory	Beak, P
	laboratory	AB1	02:00 PM - 05:50 PM	T	room 219 Noyes Laboratory	Beak, P
31623	lecture	AL1	01:00 PM - 01:50 PM	T	room 162 Noyes Laboratory	Beak, P

438 Advanced Organic Chemistry Credit: 3 hours.

(CHEM 339) Third course, lectures. Topics in structure, synthesis and reactions of organic chemistry. Prerequisite: CHEM 332 or CHEM 436.

CRN	Type	Section	Time	Days	Location	Instructor
29916	lecture	A	10:00 AM - 10:50 AM	TR	room 217 Noyes Laboratory	Coates, R
	lecture	A	05:00 PM - 06:30 PM	W	room 217 Noyes Laboratory	Coates, R
: For undergraduate students						

440 Physical Chemistry Principles Credit: 4 hours.

(CHEM 340) One-term course in physical chemistry emphasizing topics most important to students in the biological and agricultural sciences. Not open to students in the specialized curricula in chemistry and chemical engineering. Laboratory experience in this area provided by CHEM 315 to be taken preferably after CHEM 440. Prerequisite: CHEM 121 or CHEM 222 and CHEM 232, or equivalent; PHYS 102; and MATH 242 or equivalent (calculus including partial derivatives).

CRN	Type	Section	Time	Days	Location	Instructor
31624	lecture	A	11:30 AM - 12:50 PM	TR	room 162 Noyes Laboratory	Rienstra, C
31624: Topic: Balanced Survey						
31626	lecture	B	10:00 AM - 11:50 AM	TR	room 124 Burrill Hall	Gennis, R; Crofts, A
31626: Topic: Biological Perspective						

442 Physical Chemistry I Credit: 4 hours.

(CHEM 342) Lectures and problems focusing on microscopic properties. CHEM 442 and CHEM 444 constitute a year-long study of chemical principles covering topics such as quantum chemistry, atomic and molecular structure and spectra, statistical thermodynamics, properties and thermodynamics of materials in gases, solids, and liquids, and chemical kinetics and equilibria. Credit is not given for both CHEM 442 and PHYS 427. Prerequisite: CHEM 204, CHEM 121, or CHEM 222; MATH 225 or MATH 415, and a minimal knowledge of differential equations, or equivalent; and PHYS 211, PHYS 212, and PHYS 214 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
31627	lecture	A	09:00 AM - 09:50 AM	MWF	room 161 Noyes Laboratory	Lisy, J
31628	lecture	B	10:00 AM - 10:50 AM	MWF	room 161 Noyes Laboratory	Martinez, T

444 Physical Chemistry II Credit: 4 hours.

(CHEM 344) Continuation of CHEM 442, focusing on bulk properties. Credit is not given for both CHEM 444 and PHYS 427. Prerequisite: CHEM 442.

CRN	Type	Section	Time	Days	Location	Instructor
29917	lecture	A	10:00 AM - 10:50 AM	MWF	room 217 Noyes Laboratory	Oldfield, E

445 Physical Principles Lab I Credit: 2 hours.

(CHEM 345) Laboratory course features experiments concerning the fundamental physical nature of chemical phenomena. Typical experiments include magnetic resonance and thermochemistry. Prerequisite: CHEM 315, and credit or concurrent registration in CHEM 444; or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
31629	laboratory	AB1	01:00 PM - 04:50 PM	R		Belford, R
31630	laboratory	AB2	01:00 PM - 04:50 PM	T	room ARR Noyes Laboratory	Belford, R
31630: Class will be held in 459 Noyes.						
31631	laboratory	AB3	06:00 PM - 09:50 PM	T	room ARR Noyes Laboratory	Belford, R
31631: Class will be held in 459 Noyes.						
31632	quiz	AQ1	ARRANGED			Belford, R

447 Physical Principles Lab II Credit: 2 hours.

(CHEM 347) Laboratory course features advanced experiments concerning the fundamental physical nature of chemical phenomena. This course is a continuation of CHEM 445. Typical experiments include dielectric constants of liquids and low-energy electron diffraction from surfaces. Prerequisite: CHEM 445 or consent of instructor.

Register for the quiz and one laboratory section.

CRN	Type	Section	Time	Days	Location	Instructor
31633	laboratory	AB1	01:00 PM - 04:50 PM	T	room ARR Noyes Laboratory	Belford, R; McDonald, J
33121	laboratory	AB2	01:00 PM - 04:50 PM	R	room ARR Noyes Laboratory	Belford, R; McDonald, J
33121: Class will be held in 459 Noyes.						
31634	laboratory	AB3	06:00 PM - 09:50 PM	T	room ARR Noyes Laboratory	Belford, R; McDonald, J
31634: Class will be held in 459 Noyes.						

31575	quiz	AQ1	ARRANGED			Belford, R; McDonald, J
-------	------	-----	----------	--	--	----------------------------

484 *Thermodynamics of Materials* Credit: 4 hours.
(CHEM 245) Same as MSE 401. See MSE 401.

CRN	Type	Section	Time	Days	Location	Instructor
38344	lecture	A	09:00 AM - 09:50 AM	MWF	room 218 Ceramics Bldg	Luijten, E
	lecture	A	01:00 PM - 01:50 PM	F	room 218 Ceramics Bldg	Luijten, E

492 *Special Topics in Chemistry* Credit: 2 or 3 hours.
(CHEM 391) Open to advanced undergraduates and graduate students. Deals with subjects not ordinarily covered by regularly scheduled courses. Prerequisite: Credit or concurrent registration in any 400-level course in chemistry.

CRN	Type	Section	Time	Days	Location	Instructor
45263	lecture	A	10:00 AM - 10:50 AM	MWF	room 106B1 Engineering Hall	Shapley, J
<p>45263: 3 hours TOPIC: Chemistry of Environment. Section A is designed as a class for students with a strong chemistry background (chemistry and chemical engineering majors) with an interest in environmental chemistry. Topics include the chemistry of the atmosphere, the chemistry of soil and minerals in the Earth's crust, chemistry of natural waters, agricultural chemicals and organic pollutants, and topics related to energy use. Prerequisites are one year of general chemistry (CHEM 102-105 or CHEM 202-205) and one semester of organic chemistry (CHEM 231 or CHEM 236).</p>						

494 *Lab Safety Fundamentals* Credit: 1 hours.
(CHEM 393) Same as MSE 492. See MSE 492.

CRN	Type	Section	Time	Days	Location	Instructor
38335	lecture	A	07:00 PM - 08:50 PM	MW	room 228 Natural History Bldg	Shang, J
<p>38335: This course is restricted to juniors, seniors and graduate students who are working in laboratories. This class meets only five times each semester, on the first monday and wednesday evenings of the semester. The first class meets on August 24, 2005.</p>						

495 *Teaching Secondary Chemistry* Credit: 4 hours.
Intended for undergraduates working toward certification to teach high school chemistry and graduate students working towards a Master's degree in the Teaching of Chemistry. Course aims to provide future teachers with hands-on experience in conduction laboratory experiments, demonstrations, and teaching strategies. Course does not count toward the eleven advanced hours in chemistry required in the specialized curriculum, nor does it apply to coursework required for the Ph.D. in Chemistry. Prerequisite: Undergraduate background in general chemistry and

credit or concurrent enrollment in CI 403.

CRN	Type	Section	Time	Days	Location	Instructor
40172	laboratory	AB1	01:00 PM - 02:50 PM	F	room 201 Chemistry Annex	Decoste, D
40172: Instructor Approval Required						
40173	discussion-recitation	AD1	01:00 PM - 02:50 PM	W	room 164 Noyes Laboratory	Decoste, D
40173: Instructor Approval Required						

499 Senior Thesis Credit: 2 to 6 hours.

(CHEM 292) Research with thesis, under the direction of a senior staff member in chemistry. Normally the student takes two terms of CHEM 499 in the senior year. CHEM 499 is recommended for all those who plan to do research and graduate study, and it or BIOC 492 is a prerequisite for graduation with distinction in chemistry. In the term preceding their initial enrollment, those interested in taking the course should consult with their advisers and with the graduate adviser for the area of interest in which they plan to work. A maximum of 10 hours may be counted toward graduation and a thesis must be presented for credit to be received. No graduate credit.

CRN	Type	Section	Time	Days	Location	Instructor
10508	independent study		ARRANGED			
10508: Departmental Approval Required						

512 Advanced Inorganic Chemistry Credit: 4 hours.

(CHEM 402) Descriptive chemistry of the main group and transition elements, reactions and reaction mechanisms of inorganic systems, and electronic structure of inorganic molecules and solids. Prerequisite: CHEM 312 or approval of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
29928	lecture	A	08:30 AM - 09:50 AM	TR	room 217 Noyes Laboratory	Boulatov, R

515 Inorganic Chemistry Seminar Credit: 1 hours.

(CHEM 405) Required of all graduate students whose major is inorganic chemistry.

CRN	Type	Section	Time	Days	Location	Instructor
29931	lecture-discussion	A	04:00 PM - 05:50 PM	TR	room 112 Chemistry Annex	Klemperer, W

518 Topics in Inorganic Chemistry Credit: 2 to 4 hours.

(CHEM 407) Advanced course dealing with a subject not ordinarily covered by regularly scheduled courses, such as organometallic chemistry, advanced ligand field theory and molecular orbital theory of inorganic compounds, kinetics and mechanisms of inorganic reactions, etc. May be repeated. Prerequisite: CHEM 516 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
45242	lecture	A1	01:00 PM - 02:15 PM	TR	room 229 Natural History Bldg	Lu, Y
45242: 2 hours BIO INORGANIC CHEMISTRY. Section A1 - 2 hours credit - lecture only.						
45308	lecture	A2	01:00 PM - 02:15 PM	TR	room 229 Natural History Bldg	Lu, Y
45308: 3 hours BIO INORGANIC CHEMISTRY. Section A2 - 3 hours credit - lecture plus midterm paper and presentation.						
29934	lecture	B	02:00 PM - 02:50 PM	MWF	room 161 Noyes Laboratory	Girolami, G
29934: 4 hours INTRODUCTION TO MATERIALS CHEMISTRY						

520 Advanced Analytical Chemistry Credit: 3 hours.

(CHEM 420) Treatment of the basic issues of importance in modern analytical chemistry. Topics include basic chemical and measurement concepts, measurement instrumentation and techniques, and principles, tools, and applications in spectroscopy, electrochemistry, separations, sensors, mass spectroscopy and surface characterization. Prerequisite: CHEM 315, CHEM 420, and CHEM 444.

CRN	Type	Section	Time	Days	Location	Instructor
29935	lecture	A	09:00 AM - 10:20 AM	TR	room 171 Roger Adams Laboratory	Scheeline, A

521 Advanced Analytical Chem Lab Credit: 1 hours.

(CHEM 426) Graduate-level laboratory course in chemical analysis meant to be taken concurrently with CHEM 520. Experiments in atomic and molecular spectroscopy, electrochemistry, and molecular separations cover areas relevant to modern chemical analysis with similar emphasis on sample manipulation, instrumentation and data analysis. Prerequisite: CHEM 315, CHEM 420, CHEM 442, and CHEM 444, or preparation in chemistry and physics equivalent to a major in the natural sciences or engineering at the bachelor's degree level.

CRN	Type	Section	Time	Days	Location	Instructor
31576	laboratory	A	01:00 PM - 04:50 PM	M	room 303 Chemistry Annex	Scheeline, A
31578	laboratory	B	01:00 PM - 04:50 PM	T	room 303 Chemistry Annex	Scheeline, A

525 Analytical Chemistry Seminar Credit: 1 hours.
 (CHEM 425) Required of all graduate students whose major is analytical chemistry.

CRN	Type	Section	Time	Days	Location	Instructor
29939	lecture-discussion	A	04:00 PM - 05:50 PM	F	room 116 Roger Adams Laboratory	Scheeline, A; Bohn, P

532 Physical Organic Chemistry Credit: 4 hours.
 (CHEM 431) Advanced survey of organic chemistry with emphasis on reaction mechanisms and concepts of physical organic chemistry. Prerequisite: CHEM 332 or CHEM 436 and one year of physical chemistry.

CRN	Type	Section	Time	Days	Location	Instructor
29946	lecture	A	11:00 AM - 11:50 AM	MWF	room 161 Noyes Laboratory	Silverman, S

534 Advanced Organic Synthesis Credit: 4 hours.
 (CHEM 432) Advanced survey of organic chemistry with emphasis on synthesis. Prerequisite: CHEM 332 or CHEM 436.

CRN	Type	Section	Time	Days	Location	Instructor
42841	lecture	A	10:00 AM - 10:50 AM	TR	room 217 Noyes Laboratory	Coates, R
	lecture	A	05:00 PM - 06:30 PM	W	room 217 Noyes Laboratory	Coates, R
: For graduate students						

535 Organic Chemistry Seminar Credit: 2 hours.
 (CHEM 435) Current literature in organic chemistry. Prerequisite: Consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
29949	lecture-discussion	A	04:00 PM - 04:50 PM	MR	room 116 Roger Adams Laboratory	Katzenellenbogen, J
	lecture-discussion	A	07:30 PM - 09:50 PM	W	room 116 Roger Adams Laboratory	Katzenellenbogen, J

540 Quantum Mechanics Credit: 4 hours.

(CHEM 348) The sequence, CHEM 540 and CHEM 542, is designed to give seniors and graduate students a unified treatment of physical chemistry on an advanced level; topics include the electronic structure and spectra of atoms, principles of wave mechanics, experimental and theoretical aspects of the chemical bond in diatomic and polyatomic molecules, statistical thermodynamics, and chemical kinetics. Prerequisite: CHEM 444 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
29918	lecture	A	09:00 AM - 10:20 AM	TR	room 164 Noyes Laboratory	McCall, B

544 Statistical Thermodynamics Credit: 4 hours.

(CHEM 441) Fundamentals of classical thermodynamics with emphasis on equilibrium and stability criteria; an introduction to equilibrium statistical mechanics with discussion of several ensembles and applications to ideal systems of interest to chemists; and introduction to nonequilibrium thermodynamics. Prerequisite: CHEM 442 and CHEM 444, or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
29953	lecture	A	10:00 AM - 11:20 AM	MWF	room 162 Noyes Laboratory	Dlott, D

545 Physical Chemistry Seminar Credit: 1 or 2 hours.

(CHEM 445) Required of all graduate students whose major is physical chemistry. Approved for both letter and S/U grading. Prerequisite: Consent of instructor.

To be taken by physical chemistry graduate students during any semester. A seminar will be presented to fulfill a PH.D. requirement.

CRN	Type	Section	Time	Days	Location	Instructor
29955	lecture-discussion	A	04:00 PM - 05:20 PM	W	room 112 Chemistry Annex	McDonald, J

575 Chemical Biology Seminar Credit: 1 hours.

(CHEM 475) Required of all graduate students whose major is Chemical Biology. Approved for S/U grading only. Prerequisite: Consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
29957	lecture-discussion	A	12:00 PM - 01:50 PM	R	room 161 Noyes Laboratory	Katzenellenbogen, J

578 Combinatorial Chemistry Credit: 4 hours.

All aspects of combinatorial chemistry, the synthesis of multiple compounds in a rapid fashion, will be covered.

Examples of combinatorial biology will also be discussed. Prerequisite: Chemistry graduate students or two semesters of undergraduate organic chemistry.

CRN	Type	Section	Time	Days	Location	Instructor
42818	lecture	A	08:30 AM - 09:50 AM	TR	room 161 Noyes Laboratory	Hergenrother, P
42818: Permission from the instructor is needed for upper level undergraduates that want to enroll in this course.						

585 *Materials Chemistry Seminar* Credit: 1 hours.

Required of all Chemistry graduate students whose major area is Materials Chemistry. Approved for S/U grading only.

CRN	Type	Section	Time	Days	Location	Instructor
43843	lecture-discussion	A	04:00 PM - 05:50 PM	R	room 112 Chemistry Annex	Suslick, K

590 *Special Topics in Chemistry* Credit: 1 to 4 hours.

(CHEM 490) Designed for students majoring or minoring in chemistry who wish to undertake individual studies of a non-research nature under the direction of a faculty member of the department. Approved for both letter and S/U grading. Prerequisite: Consent of instructor and written approval of department head. Staff for the course is the same as for CHEM 599.

CRN	Type	Section	Time	Days	Location	Instructor
10512	independent study		ARRANGED			
10512: Departmental Approval Required						
31579	lecture-discussion	A	02:00 PM - 03:20 PM	W	room 217 Noyes Laboratory	Rienstra, C
31579: 1 hours TOPIC: CHEMICAL BIOLOGY TUTORIAL.						

599 *Thesis Research* Credit: 0 to 16 hours.

(CHEM 499) Candidates for the master's degree who elect research are required to present a thesis. A thesis is always required of students working toward the degree of Doctor of Philosophy. Not all candidates for thesis work necessarily are accepted. Any student whose major is in a department other than chemistry or chemical engineering must receive permission from the head of the Department of Chemistry to register in this course. Approved for S/U grading only.

During Summer terms, this course can only be taken for 0 to 8 hours.

CRN	Type	Section	Time	Days	Location	Instructor
10514	independent		ARRANGED			

	study					
10514: Departmental Approval Required						