Catalog Year 2010-2011

Department of Chemistry
EASTERN ILLINOIS UNIVERSITY
Charleston, Illinois 61920

SUGGESTED FOUR-YEAR PLAN OF STUDY FOR THE CHEMISTRY MAJOR
B.S. with Chemistry Concentration (Meets ACS certification) and Pre-Med Emphasis

FRESHMAN YEAR

	Fall Semester (16 SH)			SH		*Spring Semester (16 SH)*			SH
	CHM	1310G	General Chemistry I	3		CHM	1410	General Chemistry II	3
	CHM	1315G	General Chemistry Laboratory I	1		CHM	1415	General Chemistry Laboratory II	1
	ENG	1001G	Composition and Language	3		ENG	1002G	Composition and Literature	3
	PHY	1351G	General Physics I	3		PHY	1361	General Physics II	3
	PHY	1352G	General Physics I Laboratory	1		PHY	1362	General Physics II Laboratory	1
	MAT	1441G	Calculus and Analytic Geometry I	5		MAT	2442	Calculus and Analytic Geometry II	5

SOPHOMORE YEAR

	Fall Semester (15 SH)			SH		*Spring Semester (14 SH)*			SH
	CHM	2440	Organic Chemistry I	3	*	CHM	2310	Inorganic Chemistry I	3
	CHM	2445	Organic Chemistry Laboratory I	1		CHM	2840	Organic Chemistry II	3
	CHM	2730	Quantitative Analysis	3		CHM	2845	Organic Chemistry Laboratory II	1
*	CHM	3500	Introduction to Chemical Research	1		CMN	1310G	Intro to Speech Communication	3
	BIO	1100	General Biology	4		BIO	1300G	Animal Diversity	4
	General Education Elective			3					

JUNIOR YEAR

	Fall Semester (15 - 16 SH)			SH		*Spring Semester (15 - 17 SH)*			SH
	CHM	3000	Chemistry Seminar I	0		CHM	3001	Chemistry Seminar II	1
*	CHM	3450	Biochemistry I	3	*	CHM	3915	Physical Chemistry Laboratory	2
*	CHM	3780	Instrumental Analysis	3	*	CHM	3920	Quantum Chemistry	3
*	CHM	3910	Chemical Thermodynamics & Kinetics	3		General Education Electives			6
	General Education Elective			3	#,≠	Electives			3-5
#,≠	Electives			3-4					

SENIOR YEAR

	Fall Semester (14 - 15 SH)			SH		*Spring Semester (13 - 15 SH)*			SH
	CHM	4000	Chemistry Seminar III	0		CHM	4001	Chemistry Seminar IV	1
*	CHM	4900	Inorganic Chemistry II	3	*	CHM	4915	Advanced Laboratory	3
	EIU	40xxG	Senior Seminar	3		General Education Electives			xx
	General Education Elective			3	#,≠	Electives			xx

Minimum Hours Required for Graduation: 120

Forty semester hours of course work numbered 3000 and above are required.

* Offered only during the term listed

\# Five semester hours of Chemistry electives must be included. Must include two additional semester hours of 4000 level lab.

≠ BIO 3200 and BIO 3520 recommended in preparation for medical school.

Catalog Year 2010-2011

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SUGGESTED FOUR-YEAR PLAN OF STUDY FOR THE CHEMISTRY MAJOR
B.S. with Chemistry Concentration (Meets ACS certification)

FRESHMAN YEAR

	Fall Semester (16 SH)		SH		*Spring Semester (16 SH)*		SH
CHM	1310G	General Chemistry I	3	CHM	1410	General Chemistry II	3
CHM	1315G	General Chemistry Laboratory I	1	CHM	1415	General Chemistry Laboratory II	1
ENG	1001G	Composition and Language	3	ENG	1002G	Composition and Literature	3
PHY	1351G	General Physics I	3	PHY	1361	General Physics II	3
PHY	1352G	General Physics I Laboratory	1	PHY	1362	General Physics II Laboratory	1
MAT	1441G	Calculus and Analytic Geometry I	5	MAT	2442	Calculus and Analytic Geometry II	5

SOPHOMORE YEAR

	Fall Semester (17 SH)		SH		*Spring Semester (13 - 14 SH)*		SH
	CHM 2440	Organic Chemistry I	3	*	CHM 2310	Inorganic Chemistry I	3
	CHM 2445	Organic Chemistry Laboratory I	1		CHM 2840	Organic Chemistry II	3
	CHM 2730	Quantitative Analysis	3		CHM 2845	Organic Chemistry Laboratory II	1
*	CHM 3500	Introduction to Chemical Research	1		General Education Elective		6-7
	CMN 1310G	Intro to Speech Communication	3				
	General Education Electives		6				

JUNIOR YEAR

	Fall Semester (15 SH)		SH		*Spring Semester (15 - 17 SH)*		SH
	CHM 3000	Chemistry Seminar I	0		CHM 3001	Chemistry Seminar II	1
*	CHM 3450	Biochemistry I	3	*	CHM 3915	Physical Chemistry Laboratory	2
*	CHM 3780	Instrumental Analysis	3	*	CHM 3920	Quantum Chemistry	3
*	CHM 3910	Chemical Thermodynamics & Kinetics	3		General Education Electives		6
	General Education Electives		6	#	Electives		3-5

SENIOR YEAR

	Fall Semester (14 - 15 SH)		SH		*Spring Semester (13 - 15 SH)*		SH
	CHM 4000	Chemistry Seminar III	0		CHM 4001	Chemistry Seminar IV	1
*	CHM 4900	Inorganic Chemistry II	3	*	CHM 4915	Advanced Laboratory	3
	EIU 40xxG	Senior Seminar	3		General Education Elective(s)		xx
	General Education Elective		3	#	Electives		xx

Minimum Hours Required for Graduation: 120

Forty semester hours of course work numbered 3000 and above are required.

* Offered only during the term listed

\# Five semester hours of Chemistry electives must be included. Must include two additional semester hours of 4000 level lab.

Catalog Year 2010-2011

Department of Chemistry
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SUGGESTED FOUR-YEAR PLAN OF STUDY FOR THE CHEMISTRY MAJOR
B.S. with Biochemistry Concentration (Meets ACS Certification)

FRESHMAN YEAR

	Fall Semester (16 SH)			SH		*Spring Semester (16 SH)*			SH
	CHM	1310G	General Chemistry I	3		CHM	1410	General Chemistry II	3
	CHM	1315G	General Chemistry Laboratory I	1		CHM	1415	General Chemistry Laboratory II	1
	ENG	1001G	Composition and Language	3		ENG	1002G	Composition and Literature	3
	PHY	1351G	General Physics I	3		PHY	1361	General Physics II	3
	PHY	1352G	General Physics I Laboratory	1		PHY	1362	General Physics II Laboratory	1
	MAT	1441G	Calculus and Analytic Geometry I	5		MAT	2442	Calculus and Analytic Geometry II	5

SOPHOMORE YEAR

	Fall Semester (18 SH)			SH		*Spring Semester (13 - 14 SH)*			SH
	CHM	2440	Organic Chemistry I	3	*	CHM	2310	Inorganic Chemistry I	3
	CHM	2445	Organic Chemistry Laboratory I	1		CHM	2840	Organic Chemistry II	3
	CHM	2730	Quantitative Analysis	3		CHM	2845	Organic Chemistry Laboratory II	1
*	CHM	3500	Introduction to Chemical Research	1		General Education Elective			6-7
	BIO	1100	General Biology	4					
	CMN	1310G	Intro to Speech Communication	3					
	General Education Electives			3					

JUNIOR YEAR

	Fall Semester (15 SH)			SH		*Spring Semester (15 - 17 SH)*			SH
	CHM	3000	Chemistry Seminar I	0		CHM	3001	Chemistry Seminar II	1
*	CHM	3450	Biochemistry I	3	*	CHM	3455	Biochemistry Laboratory	2
*	CHM	3780	Instrumental Analysis	3	*	CHM	3460	Biochemistry II	3
*	CHM	3910	Chemical Thermodynamics & Kinetics	3	*	CHM	3915	Physical Chemistry Laboratory	2
	General Education Electives			6	*	CHM	3920	Quantum Chemistry	3
						General Education Electives			6

SENIOR YEAR

	Fall Semester (14 - 15 SH)			SH		*Spring Semester (13 - 15 SH)*			SH
	CHM	4000	Chemistry Seminar III	0		CHM	4001	Chemistry Seminar IV	1
*	CHM	4860	Biochemistry III	3		General Education Elective(s)			xx
	EIU	40xxG	Senior Seminar	3	#	Electives			xx
	General Education Elective			3					
#	Electives			5-6					

Minimum Hours Required for Graduation: 120

Forty semester hours of course work numbered 3000 and above are required.
BIO 3200 or BIO 3300 required

* Offered only during the term listed
\# Five semester hours of electives in CHM or BIO must be included. Must include two additional semster hours of 4000 level lab.

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Department of Chemistry
EASTERN ILLINOIS UNIVERSITY
Charleston, Illinois 61920

SUGGESTED FOUR-YEAR PLAN OF STUDY FOR THE CHEMISTRY MAJOR
B.S. with Biochemistry Concentration and Pre-Med Emphasis (Meets ACS Certification)

FRESHMAN YEAR

	Fall Semester (16 SH)		SH		*Spring Semester (16 SH)*		SH
	CHM 1310G	General Chemistry I	3		CHM 1410	General Chemistry II	3
	CHM 1315G	General Chemistry Laboratory I	1		CHM 1415	General Chemistry Laboratory II	1
	ENG 1001G	Composition and Language	3		ENG 1002G	Composition and Literature	3
	PHY 1351G	General Physics I	3		PHY 1361	General Physics II	3
	PHY 1352G	General Physics I Laboratory	1		PHY 1362	General Physics II Laboratory	2
	MAT 1441G	Calculus and Analytic Geometry I	5		MAT 2442	Calculus and Analytic Geometry II	5

SOPHOMORE YEAR

	Fall Semester (15 SH)		SH		*Spring Semester (14 SH)*		SH
	CHM 2440	Organic Chemistry I	3	*	CHM 2310	Inorganic Chemistry I	3
	CHM 2445	Organic Chemistry Laboratory I	1		CHM 2840	Organic Chemistry II	3
	CHM 2730	Quantitative Analysis	3		CHM 2845	Organic Chemistry Laboratory II	1
*	CHM 3500	Introduction to Chemical Research	1		CMN 1310G	Intro to Speech Communication	3
	BIO 1100	General Biology	4		BIO 1300G	Animal Diversity	4
	General Education Elective		3				

JUNIOR YEAR

	Fall Semester (15 - 16 SH)		SH		*Spring Semester (15 - 17 SH)*		SH
	CHM 3000	Chemistry Seminar I	0		CHM 3001	Chemistry Seminar II	1
*	CHM 3450	Biochemistry I	3	*	CHM 3455	Biochemistry Laboratory	2
*	CHM 3780	Instrumental Analysis	3	*	CHM 3460	Biochemistry II	3
*	CHM 3910	Chemical Thermodynamics & Kinetics	3	*	CHM 3915	Physical Chemistry Laboratory	2
	General Education Elective		3	*	CHM 3920	Quantum Chemistry	3
#	Electives		3-4		General Education Electives		6

SENIOR YEAR

	Fall Semester (14 - 15 SH)		SH		*Spring Semester (13 - 15 SH)*		SH
	CHM 4000	Chemistry Seminar III	0		CHM 4001	Chemistry Seminar IV	1
*	CHM 4860	Biochemistry III	3		General Education Electives		xx
	EIU 40xxG	Senior Seminar	3	#	Electives		xx
	General Education Elective		3				
#	Electives		5-6				

Minimum Hours Required for Graduation: 120

Forty semester hours of course work numbered 3000 and above are required.

* Offered only during the term listed

\# Five semester hours of electives in CHM or BIO must be included. Must include two additional semster hours of 4000 level lab. BIO 3200 or 3300 required (BIO 3200 and BIO 3520 recommended in preparation for medical school)

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Department of Chemistry
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Charleston, Illinois 61920

SUGGESTED FOUR-YEAR PLAN OF STUDY FOR THE CHEMISTRY MAJOR
B.S. with Management Option

FRESHMAN YEAR

	Fall Semester (16 SH)				*Spring Semester (16 SH)*		
			SH				SH
CHM	1310G	General Chemistry I	3	CHM	1410	General Chemistry II	3
CHM	1315G	General Chemistry Laboratory I	1	CHM	1415	General Chemistry Laboratory II	1
ENG	1001G	Composition and Language	3	ENG	1002G	Composition and Literature	3
PHY	1351G	General Physics I	3	PHY	1361	General Physics II	3
PHY	1352G	General Physics I Laboratory	1	PHY	1362	General Physics II Laboratory	1
MAT	1441G	Calculus and Analytic Geometry I	5	MAT	2442	Calculus and Analytic Geometry II	5

SOPHOMORE YEAR

	Fall Semester (17 SH)				*Spring Semester (16 SH)*		
			SH				SH
CHM	2440	Organic Chemistry I	3	* CHM	2310	Inorganic Chemistry I	3
CHM	2445	Organic Chemistry Laboratory I	1	CHM	2840	Organic Chemistry II	3
CHM	2730	Quantitative Analysis	3	CHM	2845	Organic Chemistry Laboratory II	1
* CHM	3500	Introduction to Chemical Research	1	BUS	2101	Financial Accounting	3
CMN	1310G	Intro to Speech Communication	3	ECN	2802G	Principles of Microeconomics	3
ECN	2801G	Principles of Macroeconomics	3	HIS	3600G	US Constitution and Nation	3
BUS	1950	Comp.Concepts&Applic Bus.	3				

JUNIOR YEAR

	Fall Semester (15 SH)				*Spring Semester (13-16 SH)*		
			SH				SH
CHM	3000	Chemistry Seminar I	0	CHM	3001	Chemistry Seminar II	1
* CHM	3780	Instrumental Analysis	3	BUS	3010	Management & Organizational Behavior	3
* CHM	3910	Chemical Thermodynamics & Kinetics	3	BUS	2810	Business Statistics	3
BUS	2102	Managerial Acccounting	3	CHM elective			0-3
BUS	2750	Legal and Soc. Environ. Business	3	# General Education			6
General Education			3				

SENIOR YEAR

	Fall Semester (15-17 SH)				*Spring Semester (12 - 17 SH)*		
			SH				SH
BUS	3470	Principles of Marketing	3	% Electives			xx
BUS	3710	Business Financial Management	3	General Education			3-6
EIU	40xxG	Senior Seminar	3	BUS	3500	Management of Info. Systems	3
CHM	3300	Survey of Biochemistry	3	BUS	3950	Operations Management	3
General Education			3-5				
# CHM elective			0-3				

Minimum Hours Required for Graduation: 120

* Offered only during the term listed

\# Three semester hours of electives in Chemistry. The following may not be used as electives: CHM 1040G, 2040G, 3100, 3200, and 4001.

% It is especially important that majors in this concentration plan their schedules carefully to include at least 40 semester hours of course work numbered 3000 and above.

Catalog Year 2010-2011

Department of Chemistry
EASTERN ILLINOIS UNIVERSITY
Charleston, Illinois 61920

SUGGESTED FOUR-AND-A-HALF-YEAR PLAN OF STUDY
B.S. in Science with Teacher Certification (Chemistry Specialization)[1]

FIRST YEAR

	Fall Semester (16 SH)			SH		*Spring Semester (16 SH)*			SH
	CHM	1310G	General Chemistry I	3		CHM	1410	General Chemistry II	3
	CHM	1315G	General Chemistry Laboratory I	1		CHM	1415	General Chemistry Laboratory II	1
#	ENG	1001G	Composition and Language	3	#	ENG	1002G	Composition and Literature	3
	PHY	1351G	General Physics I	3		PHY	1361	General Physics II	3
	PHY	1352G	General Physics I Laboratory	1		PHY	1362	General Physics II Laboratory	1
#	MAT	1441G	Calculus and Analytic Geometry I	5		MAT	2442	Calculus and Analytic Geometry II	5

SECOND YEAR

	Fall Semester (14 - 18 SH)			SH		*Spring Semester (14 - 18 SH)*			SH
	BIO	1100	General Biology	4		BIO	1200G	General Botany	4
	CHM	2730	Quantitative Analysis	3	*	CHM	2310	Inorganic Chemistry I	3
	PLS	1153G	American Government & Constitution	3		CHM	2430	Survey of Organic Chemistry	3
#,@	SED	2000	Inquiry Into Teaching	1		CHM	2435	Survey of Organic Chemistry Lab	1
#	CMN	1310G	Intro to Speech Communication	3	#,@	EDF	2555	Diversity of Schools & Societies	3
	For Lang (if needed)			0-4		For Lang (if needed)			0-4

THIRD YEAR

	Fall Semester (19 SH)			SH		*Spring Semester (12 SH)*			SH
	BIO	1300G	Animal Diversity	4		ESC	1400G	Weather and Climate	4
	CHM	3100	Practicum in Chemistry	1	#,@	SED	3100[2]	Secondary Education: ASEP Level II	3
	CHM	3300	Survey of Biochemistry	3		Gen Ed Fine Arts or Humanities-Cult Div			3
	ESC	1300G	Introduction to Earth Sciences	4		Elective			0-2
	PHY	1055 G	Principles of Astronomy	3					
	PHY	1056G	Principles of Astronomy Lab	1					
#,@	SED	3000	Secondary Education: ASEP Level I	3					

FOURTH YEAR

	Fall Semester (12 - 15 SH)			SH		*Spring Semester (15 - 16 SH)*			SH
	CHM	3000	Chemistry Seminar 1	0		CHM	3001	Chemistry Seminar II	1
*	CHM	3780[3]	Instrumental Analysis	3	*	CHM	3915[3]	Physical Chemistry Laboratory	2-3
	or Gen Ed Humanities					or Gen Ed Humanities			
*	CHM	3910	Chemical Thermodynamics & Kinetics	3		ESC	2450G	Oceanography	3
#,*	PHS	3400[2]	Teaching Methods	3		EIU	40xxG	Senior Seminar	3
	Gen Ed Soc/Beh Sci			3		Gen Ed Fine Arts			3
						Gen Ed Soc/Beh Sci			3

FIFTH YEAR

	Fall Semester (15 SH)			SH
@	STG	4001	Student Teaching	12-14
@	SED	4000	Secondary Education: ASEP Level III	3

Minimum Hours Required for Graduation: 130

[1] Professional education requirements are satisfied via the Integrated Secondary Education Program (ISEP). See Undergraduate Catalog for alternate sequence.

[2] Requires University Approval to take Teacher Ed Courses

[3] CHM 3780 **OR** CHM 3915.

* Offered only during the term listed

\# Requires a "C" or better.

@ Required for ISEP Program.

The State of Illinois requires the student to have at least one other teaching area in addition to chemistry such as physics (10hrs), general science (8 hrs/physical, 8 hrs/biological sciences), etc.