CURRENT CATALOG COPY

CHEMISTRY MAJOR, (BS DEGREE)

A. **General Education Core Requirement/38 credits**
MATH 261 is strongly recommended for General Education Goal 5.
Chemistry majors completing PHYS 202 are exempt from the General Education Goal 6 Requirement.

B. **Additional Degree Requirements/8 credits**
MATH 262/4 credits
CHEM 111/4 credits

C. **Major Requirements/41 credits**

CHEM 112	Fundamentals of Chemistry II/4 credits
CHEM 270	Inorganic Chemistry/3 credits
CHEM 305	Organic Chemistry I Lecture/3 credits
CHEM 306	Organic Chemistry II Lecture/3 credits
CHEM 307	Organic Chemistry Laboratory I/1 credit
CHEM 308	Organic Chemistry Laboratory II/1 credit
CHEM 324	Thermodynamics/3 credits
CHEM 350	Quantitative Analysis/4 credits
CHEM 351	Instrumental Analysis/3 credits
CHEM 401	Quantum Mechanics/3 credits
CHEM 402	Advanced Laboratory Problem Solving I/2 credits
CHEM 403	Advanced Laboratory Problem Solving II/2 credits
PHYS 202	University Physics II/4 credits
MATH 261	Differential and Integral Calculus/4 credits
	(3 of these 4 credits satisfy General Education Goal 5)

Non-teaching majors choose at least one credit from the following
(satisfies Goal 14 general education requirement)

CHEM 492	Internship in Chemistry/1-15 credits
CHEM 496	Research Projects in Chemistry/1-4 credits
CHEM 498	Honors Research in Chemistry/3 credits

Chemistry Electives - choose from CHEM 371-373, CHEM 375, CHEM 390 (no more than 2 credits), CHEM 412, CHEM 467 (no more than 2 credits), CHEM 495/4 credits

D. **General Electives for non-teaching majors/33 credits**
Students wishing to prepare for a health-related professional school (medical, pharmacy, dental, etc.) are strongly encouraged to choose the following courses: BIOL 121/4 credits, BIOL 122/4 credits, BIOL 206/4 credits, BIOL 207/4 credits, BIOL 304/5 credits, CHEM 412/4 credits, COMM 101/3 credits, ECON 217(or 218) OR MATH 171(or 270)/3 credits.

E. **Secondary Teaching Endorsement, Grades 6-12/43 credits**

BIOL 121	The Unity of Life/4 credits
EASC 300	Dynamic Planet/3 credits
EDUC 245	Human Growth and Development/3 credits
EDUC 260	Introduction to the Teaching Profession/2 credits
EDUC 370	Practicum II/3 credits
EDUC 432	Content Area Literacy/3 credits
EDUC 455	Principles of Secondary Education/1 credit
EDUC 473	Inquiry into the Classroom Community/3 credits
EDUC 487	Classroom Management & Systems/3 credits
SPED 489	Survey of Exceptional Children/3 credits
SCED 352	Science for Secondary Teachers/3 credits
SCED 482	Directed Teaching in the Secondary School/12 credits

* For additional endorsement to teach Biology
  Minor in Biology/24 credits

* For additional endorsement to teach Physics
  Minor in Physics/24 credits

* Students seeking endorsement in these areas must meet criteria established by the State Department of Education.

F. **Total credits required for BS in Chemistry/120**
   Total credits required for BS in Chemistry with secondary teaching endorsement/130

PROPOSED CATALOG COPY

CHEMISTRY MAJOR, BS DEGREE

A. **General Education Core Requirement/~~38~~ 30 credits**

~~MATH 261 is strongly recommended for General Education Goal 5.~~
~~Chemistry majors completing PHYS 202 are exempt from the General Education Goal 6 Requirement.~~
Completion of MATH 261 waives General Education Goal 5.
Completion of PHYS 202 waives General Education Goal 6.
Completion of CHEM 492/496/498 or SCED 490 waives General Education Goal 14.

B. **Additional Degree Requirements/8 credits**

MATH 262/4 credits
CHEM 111/4 credits

C. ***CHEMISTRY MAJORS MUST CHOOSE ONE OF THE FOLLOWING CONCENTRATIONS:***

***General Chemistry Concentration*/~~41~~ 49 credits**

CHEM 112	Fundamentals of Chemistry II/4 credits
CHEM 270	Inorganic Chemistry/3 credits
CHEM 305	Organic Chemistry I Lecture/3 credits
CHEM 306	Organic Chemistry II Lecture/3 credits
CHEM 307	Organic Chemistry Laboratory I/1 credit
CHEM 308	Organic Chemistry Laboratory II/1 credit
CHEM 324	Thermodynamics/3 credits
CHEM 350	Quantitative Analysis/4 credits
CHEM 351	Instrumental Analysis/3 credits
CHEM 401	Quantum Mechanics/3 credits
CHEM 402	Advanced Laboratory Problem Solving I/2 credits
CHEM 403	Advanced Laboratory Problem Solving II/2 credits
PHYS 201	University Physics I/4 credits
PHYS 202	University Physics II/4 credits ~~(credits satisfy General Education Goal 6)~~
MATH 261	Differential and Integral Calculus/4 credits ~~(3 of these 4 credits satisfy General Education Goal 5)~~

Choose at least one credit from the following ~~(satisfies Goal 14 general education requirement)~~

CHEM 492	Internship in Chemistry/1-15 credits
CHEM 496	Research Projects in Chemistry/1-4 credits
CHEM 498	Honors Research in Chemistry/3 credits

Chemistry Electives - choose from CHEM 371-373, CHEM 375, CHEM 390 (no more than 2 credits), CHEM 412, CHEM 467 (no more than 2 credits), CHEM 495/4 credits

Teacher Preparation in Chemistry Concentration/82 credits

CHEM 112	**Fundamentals of Chemistry II/4 credits**
CHEM 270	**Inorganic Chemistry/3 credits**
CHEM 305	**Organic Chemistry I Lecture/3 credits**
CHEM 306	**Organic Chemistry II Lecture/3 credits**
CHEM 307	**Organic Chemistry Laboratory I/1 credit**
CHEM 308	**Organic Chemistry Laboratory II/1 credit**
CHEM 324	**Thermodynamics/3 credits**
CHEM 350	**Quantitative Analysis/4 credits**
CHEM 351	**Instrumental Analysis/3 credits**
PHYS 201	**University Physics I/4 credits**
PHYS 202	**University Physics II/4 credits**

MATH 261	**Differential and Integral Calculus/4 credits**
BIOL 121	**The Unity of Life/4 credits**
EASC 300	**Dynamic Planet/3 credits**
EDUC 245	**Human Growth and Development/3 credits**
EDUC 260	**Introduction to the Teaching Profession/2 credits**
EDUC 432	**Content Area Literacy/3 credits**
EDUC 473	**Inquiry into the Classroom Community/3 credits**
EDUC 487	**Classroom Management & Systems/3 credits**
SCED 152	***Principles of Secondary Education in Science /1 credit***
SCED 252	***Practicum in Science Education/2 credits***
SCED 451	***The Teaching of Secondary Science/2 credits***
SCED 482	**Directed Teaching in the Secondary School/~~12~~ *9* credits**
SCED 490	***Research Methods Science Education/3 credits***
SPED 489	**Survey of Exceptional Children/3 credit**

Chemistry Electives - choose from CHEM 371-373, CHEM 375, CHEM 390 (no more than 2 credits), *CHEM 401, CHEM 402*, CHEM 412, CHEM 467 (no more than 2 credits), CHEM 495/4 credits

D. **General Electives *(General Chemistry Concentration ONLY)*/33 credits**
Students wishing to prepare for a health-related professional school (medical, pharmacy, dental, etc.) are strongly encouraged to choose the following courses: BIOL 121/4 credits, BIOL 122/4 credits, BIOL 206/4 credits, BIOL 207/4 credits, BIOL 304/5 credits, CHEM 412/4 credits, COMM 101/3 credits, ECON 217(or 218) OR MATH 171(or 270)/3 credits.

E. Total credits required for BS in Chemistry/120