

# Chemistry, BA

~~This degree is intended primarily for preprofessional students in health science and related areas, as well as prelaw students interested in patent law.~~ Candidates must complete the following chemistry courses:

CHEM 1000	Chemistry: The Central Science	1
CHEM 1111	Introductory Chemistry I (MOTR CHEM 150L)	5
CHEM 1121	Introductory Chemistry II	5
CHEM 2223	Quantitative Analysis in Chemistry	3
CHEM 2612	Organic Chemistry I	3
CHEM 2622	Organic Chemistry II	3
CHEM 2633	Organic Chemistry Laboratory	2
CHEM 3022	Introduction to Chemical Literature	1
CHEM 3312	Physical Chemistry I: Thermodynamics and Kinetics	3
CHEM 3322	Physical Chemistry II: Quantum Chemistry and Spectroscopy	3
CHEM 3333	Physical Chemistry Laboratory I	2
CHEM 3412	Basic Inorganic Chemistry	2
CHEM 4897	Seminar in Chemistry	<del>1</del> 2
<b>Select one of the following:</b>		2
CHEM 3643	Advanced Organic Chemistry Laboratory	

CHEM 4233	Laboratory in Instrumental Analysis	
CHEM 4343	Physical Chemistry Laboratory II	
CHEM 4433	Inorganic Chemistry Laboratory	
CHEM 4733	Biochemistry Laboratory	
<b>Total Hours</b>		<b>33 37</b>

No more than 45 hours in chemistry may be applied toward the degree. Each chemistry major must present a seminar and pass a comprehensive examination during the senior year. At least 12 credits at the 3000 level or higher must be completed at UMSL. The Department of Chemistry and Biochemistry may require students to pass a tracking test in order to enroll in the next level course, provided this or an equivalent test is administered to all students seeking to enroll in that course.

## ~~Bachelor of Arts in Chemistry with a Biochemistry Certificate~~

~~The university offers a certificate program for science majors who are interested in careers in biochemistry. This is an interdisciplinary program that involves additional courses in biochemistry and biology. In addition to the usual requirements for the B.A. degree in chemistry, the student must take the following courses:~~

<b>Chemistry</b>		
<del>CHEM 4712</del>	<del>Biochemistry</del>	<del>3</del>
<del>CHEM 4722</del>	<del>Advanced Biochemistry</del>	<del>3</del>
<del>CHEM 4733</del>	<del>Biochemistry Laboratory</del>	<del>2</del>

<del>CHEM 4772</del>	<del>Physical Biochemistry</del>	<del>3</del>
<b>Biology</b>		
<del>BIOL 1831</del>	<del>Introductory Biology: From Molecules to Organisms (MOTR BIOL 150L)</del>	<del>5</del>
<del>BIOL 2012</del>	<del>Genetics</del>	<del>3</del>
<del>BIOL 3622</del>	<del>Cell Biology</del>	<del>3</del>
<del>BIOL 4602</del>	<del>Molecular Biology</del>	<del>3</del>
<b>Total Hours</b>		<b>25</b>

~~At least 12 hours at the 3000 level or above must be completed at UMSL.~~

~~Students may obtain a minor in biology by adding BIOL 1821 to the curriculum described above. The Biology department also offers a certificate in biochemistry.~~

Rationale

In order to address the issue of poor retention of chemistry majors, primarily of those who enter our program through the lower division courses, a course designed to inform, inspire, and motivate students to continue as chemistry majors is proposed. It is also proposed that students who transfer in at a later point in the curriculum can benefit by become more informed about chemistry related careers and research opportunities. CHEM 4897 incorrectly coded for one hour. Should have been two hours. Added 2 hours to clarify hours for lab requirement. There is no longer a Biochemistry certificate so listing the BA with Biochemistry certificate no longer makes sense.