

B. A. CHEMISTRY TEACHING and B.S. CHEMISTRY (ACS Certified) DOUBLE MAJOR  
(2019 Catalog)

University requires 126 hours min. for B.S Chemistry

**Chemistry Courses**

CHEM 1110 General Chem I	4	_____
CHEM 1120 General Chem II	4	_____
OR		
CHEM 1130 Gen Chem I-II	5	_____
CHEM 2110 Descriptive Inorganic	4	_____
CHEM 2210 Organic Chemistry I	3	_____
CHEM 2220 Organic Chemistry II	3	_____
CHEM 2230 Organic Chemistry Lab	2	_____
CHEM 2310 Chromatog and Quant	4	_____
CHEM 3600 Undergrad Research	2	_____
CHEM 4010 Chemical Safety	1	_____
CHEM 4110 Inorganic Chemistry	3	_____
CHEM 4310 Instrumental Analysis	4	_____
CHEM 4420 Physical Chemistry I	3	_____
CHEM 4430 Physical Chemistry II	3	_____
CHEM 4440 Physical Chemistry Lab	2	_____
CHEM 4510 Biochemistry I	3	_____
CHEM 4610 Adv. Synth. Lab	2	_____
<i>Elective</i>		
3000/4000 level Chemistry course	3	_____

**Methods, Math, and Physics Courses**

SCI ED 3300 Orient. Sci Teach	4	_____
SCI ED 4700 Meth. in Teach Phys Sci	3	_____
MATH 1420 Calculus I	4	_____
MATH 1421 Calculus II	4	_____
PHYSICS 1701 Physics I	4	_____
PHYSICS 1702 Physics II	4	_____
OR		
PHYSICS 1511 General Physics I	4	_____
PHYSICS 1512 General Physics II	4	_____

**Professional Development Courses**

TEACHING 2017 FE: Expl. Teach.	1	_____
EDPSYCH 2030 Dynam Hum. Develop.	3	_____
SPED 3150 Meet. Needs of Div Learn.	2	_____
TEACHING 3128 FE:Teach Chng Agnt	1	_____
TEACHING 3129 Sec. Class. Mgmt	1	_____
EDPSYCH 3148 Learning & Instruction	3	_____
MEASRES 3150 Classrm Assessment	2	_____
SOCFOUND 3119 Schools in Am. Soc.	3	_____
TEACHING 4170 Human Relations	3	_____
TEACHING 3138 Student Teach	12	_____

**Total: 101 - 104 hours**

**Liberal Arts Core**

**Category 1: Core Competencies (12 hrs)**

_____ A. Writing and Reading	3 hr
_____ B. Speaking and Listening	3 hr
<u>X</u> C. Quantitative Techniques	3 hr
Satisfied by MATH 1420 4hrs	
_____ D. Dimensions of Wellbeing	2 hr

**Category 2: Civilization & Cultures (9 hrs)**

_____ A. Humanities (take 2 of I, II, and III)	3 hr
_____ B. Non-Western Cultures	3 hr

**Category 3: Fine Arts, Literature, Philosophy and Religion (6 hrs)**

_____ A. Fine Arts	3 hr
_____ B. Lit., Philosophy, or Religion	3 hr

**Category 4: Natural Science and Technology (7 hrs)**

_____ A. Life Sciences	3 hr
Take BIOL 2052 4 hr	
<u>x</u> B. Physical Sciences	4 hr
Satisfied by CHEM 1110 or 1130	

**Category 5: Social Science (9 hrs)**

_____ A. Soc. & Historical Perspectives	3 hr
_____ B. Individual & Institutional Perspectives	3 hr
<u>x</u> C. Diversity & Global Issues	3 hr
Satisfied by EDPSYCH 2030	

**Category 6: Capstone (2 hrs)**

\_\_\_\_\_ Capstone

**10 hours satisfied  
34 hours needed**

NOTE: Students are encouraged to take additional course work in physics to obtain an additional endorsement in physics, and additional course work in earth science and biology to obtain an endorsement in basic science. A grade of C- or better must be earned in all courses counting towards any teaching certification.

Dual Major – Bachelor of Arts Chemistry Teaching and Bachelor of Science in Chemistry  
SUGGESTED SCHEDULE

FRESHMEN YEAR

<u>FALL</u>		<u>SPRING</u>	
CHEM 1110 General Chemistry I	4	CHEM 1120 General Chemistry II	4
MATH 1420 Calculus I	4	MATH 1421 Calculus II	4
ENGLISH 1005 College Write&Res	3	COMM 1000 Oral Communication	3
Liberal Arts Core	<u>6</u>	Liberal Arts Core	<u>6</u>
	17		17

SOPHOMORE YEAR

<u>FALL</u>		<u>SPRING</u>	
CHEM 2210 Organic Chemistry I	3	CHEM 2220 Organic Chemistry II	3
CHEM 2310 Chromatog. and Quant.	4	CHEM 2230 Organic Chemistry Lab	2
PHYSICS 1701 Physics I	4	PHYSICS 1702 Physics II	4
TEACHING 2017 FE: Expl Tchng	1	TEACHING 3128 FE: Tchr Chng Agnt	1
EDPSYCH 2030 Dynam. Hum. Dev.	3	EDPSYCH 3148 Learning&Instr.	3
Dimensions of Wellbeing	<u>2</u>	TEACHING 3129 Sec. Class. Mgmt	1
	17	MEASRES 3150 Classrm Assessment	<u>2</u>
			16

JUNIOR YEAR

<u>FALL</u>		<u>SPRING</u>	
CHEM 2110 Descriptive Inorg. Chem	4	CHEM 4110 Inorganic Chemistry	3
CHEM 4420 Physical Chemistry I	3	CHEM 4430 Physical Chemistry II	3
CHEM 4510 Biochemistry I	3	CHEM 4440 Physical Chemistry Lab	2
SPED 3150 Meeting the Needs	2	SCI ED 3300 Orient. Sci. Teaching	4
SOCFOUND 3119 Schools in Am. Soc.	3	Liberal Arts Core	<u>3</u>
LAC Capstone	<u>2</u>		15
	17		

SENIOR YEAR

<u>FALL</u>		<u>SPRING</u>	
CHEM 4310 Instrumental Analysis	4	3000/4000 level Chemistry Elective	3
CHEM 4610 Adv. Synthesis Lab	2	TEACHING 4170 Human Relations	3
SCI ED 4700 Methods in Teaching PS	3	CHEM 4010 Chemical Safety	1
PHYSICS 3000/4000 Physics Elective	4	CHEM 3600 Undergraduate Research	2
Liberal Arts Core	<u>3</u>	Liberal Arts Core	<u>6</u>
	16		15

<u>FALL</u>	
TEACHING 3138 Student Teaching	<u>12</u>
	12

Total Hours

General Education	34 hours (10 covered by the major)
Major	71-74 hours
Professional Development	30 hours
Physics courses for additional endorsement	<u>4 hours</u>
	139-142 hours

ADVISING NOTE: The above program represents one example of a variety of alternative schedules for completing two separate degrees: B.A. with a major in Chemistry Teaching and B.S. with a major in chemistry. Students are encouraged to take two courses in biology and two courses in earth science in order to obtain a basic science endorsement. Students are encouraged to take a total of 12 credits in physics to obtain a physics endorsement. Requirements are subject to change.