

## Dual Accelerated BS+MS Degrees in Chemistry (Accelerated Bachelors and Masters (ABM) Degrees)

The Accelerated Bachelors/Master's (ABM) degree program (Chemistry BS and MS) allows students to complete the requirements for both a BS and an MS degree within five years.

### Four-Year Curriculum Plan in: BACHELOR OF SCIENCE DEGREE IN CHEMISTRY, FOUR YEAR PLAN, ACS CERTIFIED with ABM option (thesis-based MS)

Freshman Year		Fall		Spring	
Course Prefix/Number	Course Title	Credit	Course Prefix/Number	Course Title	Credit
*CHEM 1100	Gen. Chem. I	4	+CHEM 1200	Gen. Chem. II	4
*=MATH 2010	Calc & Anal Geom. I	4	*=MATH 2020	Calc & Anal Geom. II	4
*ENG 1110	English Composition I	3	*ENG 1210	English Composition II	3
*UNIV 1100	First year seminar	2	=PHYS 2305	Gen. Phys. For Sci & Eng I	3
*PEDU 1541	Fitness	2	=PHYS 2410	Lab I	1
*HEDU 1531	Health	2			
<b>Total</b>			<b>Total</b>		
17			15		

Sophomore Year		Fall		Spring	
Course Prefix/Number	Course Title	Credit	Course Prefix/Number	Course Title	Credit
+CHEM 3100	Org. Chem. I	3	+CHEM 3120	Org. Chem. II	3
+CHEM 3330	Org. Chem. Lab I	1	+CHEM 3340	Org. Chem. Lab. II	1
+CHEM 2020	Quant. Analysis	4	+CHEM 4400	Instrumental Analysis	4
=PHYS 2310	Gen. Phys. II	3	*HIST 1320	World Societies	3
=PHYS 2420	Lab I or II	1	*MFL II	Modern Foreign Language II	3
+CHEM 3200	Inorganic Chemistry	4			
<b>Total</b>			<b>Total</b>		
16			14		

Junior Year		Fall		Spring	
Course Prefix/Number	Course Title	Credit	Course Prefix/Number	Course Title	Credit
+CHEM 4010	Phys. Chem. I	4	+CHEM 4020	Phys. Chem. II	4
+CHEM 4900	Applied Math	2	*HUM 2410 or 2420	Arts & Humanities I or II	3
#	General Elective	3	&CHEM	Advanced Elective	3
*BIOL 1202	Prin of Biol. Molecules and cells	4	+CHEM 4800 (WI)	Chem. Res. Literature	3
*MSCM 1250	Elem. Of Speech (SI)	3	*SOSC	GEC Requirement	3
<b>Total</b>			<b>Total</b>		
16			16		

Senior Year		Fall		Spring	
Course Prefix/Number	Course Title	Credit	Course Prefix/Number	Course Title	Credit
&CHEM	Advanced Electives	3	+CHEM 4920	Senior Honors Seminar	2
+CHEM 4500	Biochemistry I	3	#CHEM (BIOL)	Electives	6
+CHEM 4520	Biochemistry Lab.	1	&CHEM	Advanced Elective	3
+CHEM 4700	Intro. Chem. Res.	2	#	General Elective	3
*PHIL 2210	Ethics (HUM GEC Req)	3	&#CHEG 5300	Chemical Bonding and Stereochemistry	3
&#CHEG 5200	Spectroscopic Methods of Analysis	3	&#CHEG 5700	Graduate research	3
<b>Total</b>			<b>Total</b>		
12			14		

**TOTAL MINIMUM CREDIT HOURS: 120 semester hours**

**Distribution of Hours** \* Core Curriculum Courses/GEC requirements – 46

+ Required Chemistry Courses for ACS Certified B.S. Degree in Chemistry – 46

& Advanced Chemistry Course elective for ACS Certification – 9

# Chemistry/Biology and/or General Electives 12

= Required cognitive course for ACS Certified B.S. degree in Chemistry – 8

■ Graduate courses that can be counted both for the B.S. degree and the M.S. degree in Chemistry for ABM students.

**ONE-Year Curriculum Plan in: MASTER OF SCIENCE DEGREE IN CHEMISTRY, FIVE YEAR PLAN, ACS CERTIFIED with ABM option (thesis-based MS)**

Grad Year 1			Fall		Spring		
Course		Course Title	Credit	Course	Course Title	Credit	
Prefix/Number				Prefix/Number			
CHEG	<u>5xxx</u>	<u>Graduate course</u>	<u>3</u>	CHEG	<u>5xxx</u>	<u>Graduate course</u>	<u>3</u>
CHEG	<u>5xxx</u>	<u>Graduate course</u>	<u>3</u>	CHEG	<u>5xxx</u>	<u>Graduate course</u>	<u>3</u>
CHEG	<u>5700</u>	<u>Research</u>	<u>3</u>	CHEG	<u>5xxx</u>	<u>Graduate course</u>	<u>3</u>
<b>Total</b>			<b>9</b>	<b>Total</b>			<b>9</b>

Grad Year 1		Summer I	
Course		Course Title	Credit
Prefix/Number			
CHEG	<u>5600</u>	<u>Seminar</u>	<u>1</u>
CHEG	<u>5900</u>	<u>Thesis</u>	<u>3</u>
<b>Total</b>			<b>4</b>