

# DEGREE GUIDE FOR THE COLLEGE OF ARTS AND SCIENCES

## B.A.: CHEMISTRY -- 2009-2011

Note: of the 128 credits required for graduation, students must earn at least 104 within Arts and Sciences departments.

### B.A. – CHEMISTRY -- 53 Credits

<b>Thought and Expression</b>	<b>GRD</b>	<b>7.0</b>
ENGL 101 English Composition	3 [ ]	
PHIL 101 Critical Thinking	2 [ ]	
SPCO 101 Intro to Speech Comm	2 [ ]	

<b>Religious Studies</b>	<b>GRD</b>	<b>9.0</b>
RELI 100 Level Course	3 [ ]	
RELI 200 Level Course	3 [ ]	
RELI 300 Level Course	3 [ ]	

<b>Philosophy</b>	<b>GRD</b>	<b>9.0</b>
PHIL 201 Human Nature	3 [ ]	
PHIL 301 Ethics	3 [ ]	
PHIL 400 Level Course	3 [ ]	

<b>English</b>	<b>GRD</b>	<b>6.0</b>
ENGL 102, 103H, 105 or 106	3 [ ]	
ENGL 201 – 285	3 [ ]	

<b>Fine Arts</b>	<b>GRD</b>	<b>3.0</b>
(P)	3 [ ]	

*Fine Arts Course must have "P" designation*

<b>Foreign Language/Culture</b>	<b>GRD</b>	<b>3.0</b>
(FC)	3 [ ]	

*Foreign Language/Culture Course must have "FC" designation*

<b>History (choice of 2)*</b>	<b>GRD</b>	<b>6.0</b>
HIST	3 [ ]	
HIST	3 [ ]	

\*HIST 101 and either 102 or 112 in the first year. If unable to complete all six 100-level HIST credits in the first year, HIST 201 or 202 may be substituted for ONE 100-level course after the first year. (NO upper division can substitute.)\*

<b>Social Science</b>	<b>GRD</b>	<b>6.0</b>
CRIM 101, ECON, SOCI, POLS or PSYC	3 [ ]	
	3 [ ]	

<b>Math/Lab Science/Elective</b>	<b>GRD</b>	<b>10.0</b>
Math**	3 [ ]	
Lab Science	4 [ ]	
Elective**	3 [ ]	

\*\*MATH 100 level or above (or ITEC for elective)

<b>Social Justice</b>	<b>GRD</b>	<b>3.0</b>
(J)	3 [ ]	

*Social Justice Course must have "J" designation*

**TOTAL CORE CREDIT** 62 \_\_\_\_\_

**Electives:**

	[ ]	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	[ ]	[ ]	[ ]

**MAJOR LOWER DIVISION** **29 credits**

CRSE	CRSE Title	GRD
CHEM 101	General Chemistry	3 [ ]
CHEM 101L	General Chemistry Lab	1 [ ]
CHEM 206	Inorganic Chemistry	3 [ ]
CHEM 206L	Inorganic Chemistry Lab	1 [ ]
CHEM 230	Organic Chemistry	4 [ ]
CHEM 230L	Organic Chemistry Lab	1 [ ]
MATH 157	Calc & Analy Geometry I	4 [ ]
MATH 258	Calc & Analy Geometry II	4 [ ]

**One of the following two sets of courses:**

PHYS 101 & 101L	Gen Physics I/Lab	4 [ ]
PHYS 102 & 102L	Gen Physics II/Lab	4 [ ]

**OR**

PHYS 103 & 103L	Scien Physics I/Lab	4 [ ]
PHYS 204 & 204L	Scien Physics II/Lab	4 [ ]

**MAJOR UPPER DIVISION** **24 credits**

CRSE	CRSE Title	GRD
CHEM 310	Quantitative Analysis	3 [ ]
CHEM 310L	Quantitative Analysis Lab	2 [ ]
CHEM 320	Physical Chemistry I	3 [ ]
CHEM 331	Organic Chemistry II	3 [ ]
CHEM 331L	Organic Chemistry II Lab	1 [ ]
CHEM 340	Unified Lab I	2 [ ]
CHEM 440	Biochemistry I	3 [ ]
CHEM 471	Chemical Bibliography	1 [ ]
CHEM 485	Seminar	1 [ ]
CHEM 486	Seminar	1 [ ]
CHEM 488	Seminar Literature Review	1 [ ]

**One of the following courses:**

CHEM 406	Advanced Inorganic Chem	3 [ ]
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**OR**

CHEM 410	Instrumental Analysis	3 [ ]
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**OR**

CHEM 321	Physical Chemistry II	3 [ ]
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**BA degree in Chemistry**  
**[53 credits required for major (including supporting courses); 128 total credits]**

	FALL		SPRING	
Freshman	CHEM 101	3	CHEM 230	4
	CHEM 101L	1	CHEM 230L	1
	MATH 157	4	<sup>(2)</sup> MATH 258	4
	ENGL 101	3	SPCO 101	2
	PHIL 101	2	CORE	3
	<sup>(1)</sup> CORE	3	CORE	3
		16		17
Sophomore	CHEM 206	3	CHEM 310	3
	CHEM 206L	1	CHEM 310L	2
	CHEM 331	3	PHYS 103 (or 101)	3
	CHEM 331L	1	PHYS 103L (or 101L)	1
	CORE	3	CORE	3
	CORE	3	CORE	3
	CORE	3		
	17		15	
Junior	CHEM 320	3	<sup>(3)</sup> CHEM ELECTIVE	
	CHEM 340	2	or CORE	3
	PHYS 204 (or 102)	3	CHEM 471	1
	PHYS 204L (or 102L)	1	CORE	3
	CORE	3	CORE	3
	CORE	3	CORE	3
		15		16
Senior	CHEM 440	3	CHEM 486	1
	<sup>(3)</sup> CHEM ELECTIVE		CORE	3
	or CORE	3	CORE	3
	CHEM 485	1	CORE	3
	<sup>(4)</sup> CHEM 488	1	CORE	3
	CORE	3	CORE	3
	CORE	3		
	17		16	

## NOTES:

1. CORE refers to University core requirements (other than T/E, Math, and science) and other electives.
2. MATH 258 and PHYS 103 (or 102) are prerequisites for CHEM 320
3. One of the following courses is needed as a CHEM elective: CHEM 406 or 410
4. CHEM 488 may be taken FALL or SPRING.