

DATE: 7/2012 *meht*

Curriculum Sheet

Department of Chemistry

B.S. in Chemistry, Certified by the American Chemical Society (124 Hours)*

Fall CoursesSpring Courses

Freshman Year			Grade	Freshman Year			Grade
CHEM 141	General Chemistry I	3.0	_____	CHEM 142	General Chemistry II	3.0	_____
CHML 141	General Chemistry I Lab	1.0	_____	CHML 142	General Chemistry II Lab	1.0	_____
ENG 104	Composition and Literature	3.0	_____	ENG 105	Composition and Literature	3.0	_____
BIO 111	General Biology	3.0	_____	MATH 241	Calculus I with Lab	3.0	_____
BIOL 111	General Biology Lab	1.0	_____	HIST 102	History	3.0	_____
HIST 101	History	3.0	_____	CSC 115	Digital Computer Principles	3.0	_____
GUID 100	Concepts for Success in College	2.0	_____			16.0	
			16.0				
Sophomore Year			Grade	Sophomore Year			Grade
CHEM 241	Organic Chemistry I	3.0	_____	CHEM 242	Organic Chemistry II	3.0	_____
CHML 241	Organic Chemistry I Lab	1.0	_____	CHML 242	Organic Chemistry II Lab	1.0	_____
MATH 242	Calculus II with Lab	3.0	_____	CHEM 243	Qual. Organic Analysis	2.0	_____
PHY 211	General Physics	4.0	_____	CHML 243	Qual. Organic Analysis Lab	1.0	_____
PHYL 211	General Physics Lab	1.0	_____	PHY 212	General Physics	4.0	_____
PE	Physical Education	1.0	_____	PHYL 212	General Physics Lab	1.0	_____
ENG 205	Literature	3.0	_____	PE	Physical Education	1.0	_____
			16.0	MATH 243	Calculus III with Lab	3.0	_____
						16.0	
Junior Year			Grade	Junior Year			Grade
CHEM 320	Analytical Chemistry	3.0	_____	CHEM 340	Inorganic Chemistry	3.0	_____
CHML 320	Analytical Chem. Lab[W]	1.0	_____	CHML 340	Inorganic Chemistry Lab	1.0	_____
CHEM 381	Chemistry Seminar [S]	0.5	_____	CHEM 382	Chemistry Seminar [S]	0.5	_____
CHEM 341	Physical Chemistry I	3.0	_____	CHEM 342	Physical Chemistry II	3.0	_____
CHML 341	Physical Chemistry I Lab [W]	1.0	_____	CHML 342	Physical Chemistry II Lab	1.0	_____
MFL 101	Language	3.0	_____	MFL 102	Language	3.0	_____
	CORE II Option (A)	3.0	_____	SPCH	Speech Option	3.0	_____
			14.5	CHEM 310	Introduction to Research	2.0	_____
						16.5	
Senior Year			Grade	Senior Year			Grade
CHEM 431	Biochemistry I	3.0	_____	CHEM 421	Instrumentation	3.0	_____
CHML 431	Biochemistry I Lab	1.0	_____	CHML 421	Instrumentation Lab	1.0	_____
CHEM 481	Chemistry Seminar [S]	0.5	_____	CHEM 482	Chemistry Seminar [S]	0.5	_____
CHEM	Adv. Chem. Option	3.0	_____	CHEM 380	Independent Study	1.0	_____
CHEM 380	Independent Study	1.0	_____	CHEM	Adv. Chem. Option	3.0	_____
PHIL	Philosophy Option	3.0	_____		Elective	3.0	_____
	CORE II Option (A)	3.0	_____		Elective	3.0	_____
			14.5			14.5	

Advanced Chemistry Option Courses: Two of the following courses: CHEM 731 (Advanced Biochemistry), CHEM 736 (Physical Organic Chemistry), CHEM 738 (Organic Synthesis), CHEM 741 (Advanced Inorganic Chemistry), CHEM 758 (Quantum Chemistry), and ENV 701 (Environmental Chemistry)

CORE II Options: (All students must complete).

A. Social/Behavioral Science or Fine Arts/Humanities:

One of the following: SS 201, SS 202, SOC 214, PS 334, PS 336, GEO 105, Geo 209, SOC 325, PS 335, ECO 211, or ECO 212.

One of the following: ART 206, DR 201, MUS 205, ENG 201H, or ENG 202H.

B. Speech Option: One of the following: SPCH 201, SPCH 216, SPCH 300, SPCH 334, SPCH 335, SPCH 430.

C. Philosophy Option: One of the following: PHIL 301, PHIL 308, PHIL 309, PHIL 416, MGMT 482, SW 210.

APPROVED: Office of Academic Affairs

DATE: 7/2012 mark

Jackson State University

Proposed/2012

Curriculum Sheet: Department of Chemistry
 B.S. in Chemistry, without Certification
 [PRE-MED, PRE-DENTAL, PRE-PHARMACY] (124 hours)

Fall Courses

Spring Courses

Freshman Year		Grade
CHEM 141	General Chemistry I	3.0 _____
CHML 141	General Chemistry I Lab	1.0 _____
ENG 104	Composition and Literature	3.0 _____
BIO 111	General Biology	3.0 _____
BIOL 111	General Biology Lab	1.0 _____
HIST 101	History of Civilization	3.0 _____
UNIV 100	University Success	<u>2.0</u> _____
		16.0

Freshman Year		Grade
CHEM 142	General Chemistry II	3.0 _____
CHML 142	General Chemistry II Lab	1.0 _____
ENG 105	Composition and Literature	3.0 _____
HIST 102	History of Civilization	3.0 _____
BIO 112	General Biology	3.0 _____
BIOL 112	General Biology Lab	1.0 _____
CSC 115	Digital Computer Principle	<u>3.0</u> _____
		17.0

Sophomore Year		Grade
CHEM 241	Organic Chemistry I	3.0 _____
CHML 241	Organic Chemistry II Lab	1.0 _____
MATH 241	Calculus I with Lab	3.0 _____
ENG 205	Literature	3.0 _____
BIO 234	Human Anat. Physiol. I	3.0 _____
BIOL 234	Human Anat. Physiol. I Lab	1.0 _____
PE	Physical Education	<u>1.0</u> _____
		15.0

Sophomore Year		Grade
CHEM 242	Organic Chemistry II	3.0 _____
CHML 242	Organic Chemistry II Lab	1.0 _____
	Statistics Option	3.0 _____
BIO 235	Human Anat. Physiol. II	3.0 _____
BIOL 235	Human Anat. Physiol. II Lab	1.0 _____
MATH 242	Calculus II with Lab	<u>3.0</u> _____
		14.0

Junior Year		Grade
CHEM 341	Physical Chemistry	3.0 _____
CHML 341	Physical Chemistry Lab [W]	1.0 _____
CHEM 320	Analytical Chemistry	3.0 _____
CHML 320	Analytical Chem. Lab [W]	1.0 _____
PHY 201	Basic Physics	3.0 _____
PHYL 201	Basic Physics Lab	1.0 _____
MFL 101	Foreign Language	3.0 _____
CHEM 381	Chemistry Seminar [S]	0.5 _____
CHEM 380	Independent Study	<u>1.0</u> _____
		16.5

Junior Year		Grade
CHEM 340	Inorganic Chemistry	3.0 _____
CHML 340	Inorganic Chemistry Lab	1.0 _____
CHEM 382	Chemistry Seminar [S]	0.5 _____
CHEM 310	Introduction to Research	2.0 _____
PHY 202	Basic Physics	3.0 _____
PHYL 202	Basic Physics Lab	1.0 _____
MFL 102	Foreign Language	3.0 _____
PE	Physical Education	<u>1.0</u> _____
		14.5

Senior Year		Grade
CHEM 431	Biochemistry	3.0 _____
CHML 431	Biochemistry Lab	1.0 _____
CHEM 481	Chemistry Seminar [S]	0.5 _____
CHEM	Chem. Option	3.0 _____
BIO 313	Microbiology	3.0 _____
BIOL 313	Microbiology Lab	1.0 _____
	CORE II Option A	<u>3.0</u> _____
		14.5

Senior Year		Grade
CHEM 432	Biochemistry II	3.0 _____
CHEM 482	Chemistry Seminar[S]	0.5 _____
CHEM	Chem. Option	3.0 _____
CHEM 380	Independent Study	1.0 _____
PHIL	Philosophy Option	3.0 _____
SPCH	Speech Option	3.0 _____
	CORE II Option A	<u>3.0</u> _____
		16.5

*Students are qualified to obtain a minor degree in Biology

Chemistry Options: At least one of the following: CHEM 342 (Physical Chemistry), CHEM 410 (Environmental Chemistry), CHEM 421 (Instrumentation), and CHEM441 (Inorganic Chemistry II).
 For PRE-MED: At least two of the following: BIO 218, BIO 318, BIO 440; BIO 441, and BIO 470.
 For PRE-PHARMACY: BIO 318 and BIO 470.

Statistics Option: MATH 271 (Elementary Statistics), BIO 202 (Elementary Biostatistics)

CORE II Options: (All students must complete).

A. Social/Behavioral Science or Fine Arts/Humanities:

One of the following: SS 201, SS 202, SOC 214, PS 334, PS 336, GEO 105, Geo 209, SOC 325, PS 335, ECO 211, or ECO 212.

One of the following: ART 206, DR 201, MUS 205, ENG 201H, or ENG 202H.

B. Speech Option: One of the following: SPCH 201, SPCH 216, SPCH 300, SPCH 334, SPCH 335, SPCH 430.

C. Philosophy Option: One of following: PHIL 301, PHIL 308, PHIL 309, PHIL 416, MGMT 482, SW 210.

APPROVED: Office of Academic Affairs

DATE: 7/30/12 ms/mt

Jackson State University

Proposed /2012

Curriculum Sheet

Department of Chemistry

B.S. in Chemistry with a concentration in Forensic Chemistry (124 Hours)*

Fall Courses

Freshman Year		Grade
CHEM 141	General Chemistry I	3.0 _____
CHML 141	General Chemistry I Lab	1.0 _____
ENG 104	Composition and Literature	3.0 _____
BIO 111	General Biology	3.0 _____
BIOL 111	General Biology Lab	1.0 _____
UNIV 100	University Success	2.0 _____
HIST 101	History of Civilization	3.0 _____
		16.0

Spring Courses

Freshman Year		Grade
CHEM 142	General Chemistry II	3.0 _____
CHML 142	General Chemistry II Lab	1.0 _____
ENG 105	Composition and Literature	3.0 _____
BIO 112	General Biology	3.0 _____
BIOL 112	General Biology Lab	1.0 _____
CSC 115	Digital Computer Principles	3.0 _____
HIST 102	History of Civilization	3.0 _____
		17.0

Sophomore Year		Grade
CHEM 241	Organic Chemistry I	3.0 _____
CHML 241	Organic Chemistry I Lab	1.0 _____
MATH 241	Calculus I	3.0 _____
ENG 205	Literature	3.0 _____
PE	Physical Education	1.0 _____
MFL 101	Language	3.0 _____
		14.0

Sophomore Year		Grade
CHEM 242	Organic Chemistry II	3.0 _____
CHML 242	Organic Chemistry II Lab	1.0 _____
	Statistics Option	3.0 _____
MATH 242	Calculus II Lab	3.0 _____
SPCH	Speech Option	3.0 _____
MFL 102	Language	3.0 _____
		16.0

Junior Year		Grade
CHEM 320	Analytical Chemistry	3.0 _____
CHML 320	Analytical Chem. Lab [W]	1.0 _____
CHEM 381	Chemistry Seminar [S]	0.5 _____
PHY 201	Basic Physics	3.0 _____
PHYL 201	Basic Physics Lab	1.0 _____
BIO 313	Microbiology	3.0 _____
	CORE II Option (A)	3.0 _____
PE	Physical Education	1.0 _____
		15.5

Junior Year		Grade
CHEM 340	Inorganic Chemistry	3.0 _____
CHML 340	Inorganic Chemistry Lab	1.0 _____
CHEM 382	Chemistry Seminar [S]	0.5 _____
PHY 202	Basic Physics	3.0 _____
PHYL 202	Basic Physics Lab	1.0 _____
CHEM 371	Forensic Chemistry	3.0 _____
CHML 371	Forensic Chem. Lab	1.0 _____
CHEM 310	Introduction to Research	2.0 _____
		14.5

Senior Year		Grade
CHEM 341	Physical Chemistry I	3.0 _____
CHML 341	Physical Chemistry I Lab [W]	1.0 _____
CHEM 481	Chemistry Seminar [S]	0.5 _____
CHEM 431	Biochemistry I	3.0 _____
CHML 431	Biochemistry Lab I	1.0 _____
CJ 324	Intro. Criminal Justice	3.0 _____
	CORE II Option (A)	3.0 _____
		14.5

Senior Year		Grade
CHEM 471	Forensic Toxicology	3.0 _____
CHEM 475	Forensic Practicum	3.0 _____
CHEM 482	Chemistry Seminar [S]	0.5 _____
CHEM 421	Instrumentation	3.0 _____
CHML 421	Instrumentation Lab	1.0 _____
CJ 443	Found. Crim. Investigation	3.0 _____
PHIL	Philosophy Option	3.0 _____
		16.5

*Students are qualified to obtain a minor degree in Biology.

Statistics Option: MATH 271 (Elementary Statistics), BIO 202 (Elementary Biostatistics)

CORE II Options: (All students must complete).

A. Social/Behavioral Science or Fine Arts/Humanities:

One of the following: SS 201, SS 202, SOC 214, PS 334, PS 336, GEO 105, Geo 209, SOC 325, PS 335, ECO 211, or ECO 212.

One of the following: ART 206, DR 201, MUS 205, ENG 201H, or ENG 202H.

B. Speech Option: One of the following: SPCH 201, SPCH 216, SPCH 300, SPCH 334, SPCH 335, SPCH 430.

C. Philosophy Option: One of the following: PHIL 301, PHIL 308, PHIL 309, PHIL 416, MGMT 482, SW 210.

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Jackson State University

Proposed /2012

DATE: 7/2012 Mena

Curriculum Sheet

Department of Chemistry

B.S. in Chemistry with a Concentration in Environmental Sciences (123 Hours)*

Fall Courses

Spring Courses

Freshman Year			Grade	Freshman Year			Grade
CHEM 141	General Chemistry I	3.0	___	CHEM 142	General Chemistry II	3.0	___
CHML 141	General Chemistry I Lab	1.0	___	CHML 142	General Chemistry II Lab	1.0	___
ENG 104	Composition and Literature	3.0	___	ENG 105	Composition and Literature	3.0	___
BIO 111	General Biology	3.0	___	BIO 112	General Biology	3.0	___
BIOL 111	General Biology Lab	1.0	___	BIOL 112	General Biology Lab	1.0	___
UNIV 100	University Success	2.0	___	CSC 115	Digital Computer Principles	3.0	___
HIST 101	History of Civilization	3.0	___	HIST 102	History of Civilization	3.0	___
		16.0				17.0	
Sophomore Year			Grade	Sophomore Year			Grade
CHEM 241	Organic Chemistry I	3.0	___	CHEM 242	Organic Chemistry II	3.0	___
CHML 241	Organic Chemistry I Lab	1.0	___	CHML 242	Organic Chemistry II Lab	1.0	___
MATH 241	Calculus I with Lab	3.0	___	MATH 242	Calculus II with Lab	3.0	___
SPCH	Speech Option	3.0	___	PHIL	Philosophy Option	3.0	___
PE	Physical Education	1.0	___	CORE II Option (A)		3.0	___
ENG 205	Literature	3.0	___	PE	Physical Education	1.0	___
		14.0				14.0	
Junior Year			Grade	Junior Year			Grade
CHEM 320	Analytical Chemistry	3.0	___	CHEM 340	Inorganic Chemistry	3.0	___
CHML 320	Analytical Chem. Lab [W]	1.0	___	CHML 341	Inorganic Chemistry Lab	1.0	___
PHY 201	Basic Physics	3.0	___	PHY 202	Basic Physics	3.0	___
PHYL 201	Basic Physics Lab	1.0	___	PHYL 202	Basic Physics Lab	1.0	___
CHEM 341	Physical Chemistry I	3.0	___	CHEM 382	Chemistry Seminar [S]	0.5	___
CHML 341	Physical Chem. Lab I [W]	1.0	___	CHEM 310	Introduction to Research	2.0	___
CHEM 381	Chemistry Seminar [S]	0.5	___	MFL 102	Language	3.0	___
MFL 101	Language	3.0	___	CHEM 380	Independent Study	1.0	___
		15.5				14.5	
Senior Year			Grade	Senior Year			Grade
CHEM 410	Environmental Chemistry	3.0	___	CHEM 421	Instrumentation	3.0	___
CHML 410	Environ. Chem. Lab	1.0	___	CHML 421	Instrumentation Lab	1.0	___
CHEM 481	Chemistry Seminar [S]	0.5	___	CHEM 482	Chemistry Seminar [S]	0.5	___
CHEM 431	Biochemistry I	3.0	___	BIO	ENV Option + Lab	4.0	___
CHML 431	Biochemistry I Lab	1.0	___		Toxicology Option	3.0	___
CHEM 380	Independent Study	1.0	___	BIO	ENV Option + Lab	4.0	___
	CORE II Option (A)	3.0	___	CHEM 380	Independent Study	1.0	___
	Elective	3.0	___			16.5	
		15.5					

*Students are qualified to obtain a minor degree in Biology

Environmental Science Options (two of the following with labs): BIO 201 (Introduction to Environmental Sciences); BIO 403 (Human Environments and Natural Systems); BIO 404 (Introduction to Environmental Sciences).

Toxicology Option (one of the following): ITHM 400 (Principles of Toxicology), ITHM 529 (Environmental Toxicology and Risk Assessment) or CHEM 471 (Forensic Toxicology), Environmental Toxicology (ENV 800)

CORE II Options: (All students must complete).

A. Social/Behavioral Science or Fine Arts/Humanities:

One of the following: SS 201, SS 202, SOC 214, PS 334, PS 336, GEO 105, Geo 209, SOC 325, PS 335, ECO 211, or ECO 212.

One of the following: ART 206, DR 201, MUS 205, ENG 201H, or ENG 202H.

B. Speech Option: One of the following: SPCH 201, SPCH 216, SPCH 300, SPCH 334, SPCH 335, SPCH 430.

C. Philosophy Option: One of following: PHIL 301, PHIL 308, PHIL 309, PHIL 416, MGMT 482, SW 210.

DATE: 7/2012 mu

Curriculum Sheet

Department of Chemistry

B.S. in Chemistry with a Concentration in Biomedical Sciences (124 Hours)*

Fall Courses

Freshman Year		Grade
CHEM 141	General Chemistry I	3.0
CHML 141	General Chemistry I Lab	1.0
ENG 104	Composition and Literature	3.0
BIO 111	General Biology	3.0
BIOL 111	General Biology Lab	1.0
UNIV 100	University Success	2.0
HIST 101	History of Civilization	3.0
		16.0

Sophomore Year		Grade
CHEM 241	Organic Chemistry I	3.0
CHML 241	Organic Chemistry I Lab	1.0
MATH 241	Calculus I with Lab	3.0
MFL 101	Language	3.0
SPCH	Speech Option	3.0
ENG 205	Literature	3.0
		16.0

Junior Year		Grade
CHEM 320	Analytical Chemistry	3.0
CHML 320	Analytical Chem. Lab[W]	1.0
PHY 201	Basic Physics	3.0
PHYL 201	Basic Physics Lab	1.0
CHEM 381	Chemistry Seminar [S]	0.5
CHEM 341	Physical Chemistry I	3.0
CHML 341	Physical Chemistry I Lab [W]	1.0
CHEM 380	Independent Study	1.0
PE	Physical Education	1.0
		14.5

Senior Year		Grade
CHEM431	Biochemistry I	3.0
CHML 431	Biochemistry I Lab	1.0
CHEM 481	Chemistry Seminar [S]	0.5
CHEM 380	Independent Study	1.0
BIO	Biomed Option	3.0
	CORE II Option (A)	3.0
	Elective	3.0
		14.5

Spring Courses

Freshman Year		Grade
CHEM 142	General Chemistry II	3.0
CHML 142	General Chemistry II Lab	1.0
ENG 105	Composition and Literature	3.0
BIO 112	General Biology	3.0
BIOL 112	General Biology Lab	1.0
CSC 115	Digital Computer Principles	3.0
HIST 102	History of Civilization	3.0
		17.0

Sophomore Year		Grade
CHEM 242	Organic Chemistry II	3.0
CHML 242	Organic Chemistry II Lab	1.0
CHEM 243	Qual. Organic Analysis	2.0
CHML 243	Qual. Organic Analysis Lab	1.0
MATH 242	Calculus II with lab	3.0
MFL 102	Language	3.0
PE	Physical Education	1.0
	CORE II Option (A)	3.0
		17.0

Junior Year		Grade
CHEM 340	Inorganic Chemistry	3.0
CHML 340	Inorganic Chemistry Lab	1.0
CHEM 382	Chemistry Seminar [S]	0.5
PHY 202	Basic Physics	3.0
PHYL 202	Basic Physics Lab	1.0
CHEM 310	Introduction to Research	2.0
BIO	Biomed Option + Lab	4.0
		14.5

Senior Year		Grade
CHEM 421	Instrumentation	3.0
CHML 421	Instrumentation Lab [W]	1.0
CHEM 482	Chemistry Seminar [S]	0.5
CHEM 432	Biochemistry II	3.0
PHIL	Philosophy Option	3.0
	Elective	3.0
CHEM 380	Independent Study	1.0
		14.5

*Students are qualified to obtain a minor degree in Biology

Biomedical Science Option (two of the following, but one must be with a lab): BIO 234 (Human Anatomy & Physiology), BIO 313 (Intro Microbiology), BIO318 (Intro Genetics), BIO440 (Cell Biology), BIO 409 (General Genetics).

CORE II Options: (All students must complete).

A. Social/Behavioral Science or Fine Arts/Humanities:

One of the following: SS 201, SS 202, SOC 214, PS 334, PS 336, GEO 105, Geo 209, SOC 325, PS 335, ECO 211, or ECO 212.

One of the following: ART 206, DR 201, MUS 205, ENG 201H, or ENG 202H.

B. Speech Option: One of the following: SPCH 201, SPCH 216, SPCH 300, SPCH 334, SPCH 335, SPCH 430.

C. Philosophy Option: One of following: PHIL 301, PHIL 308, PHIL 309, PHIL 416, MGMT 482, SW 210.