## UNDERGRADUATE CURRICULUM CHANGE MEMO

Date:

March 7, 2022

From:

James Salvador, Department of Chemistry and Biochemistry

Through:

Carlos Cabrera, Chair, Department of Chemistry and Biochemistry

Through:

Robert Kirken, Dean, College of Science

To:

Andrew Fleck, Chair, Undergraduate Curriculum Committee

Proposal Title: Correction to Upper-Division Credits-Biochemistry Degree, Deletion of CHEM 2261 and Addition of CHEM 2361 (Periodic Table)

**To increase** the number of upper division credits in the Biochemistry Degree to the required 37, the Department of Chemistry and Biochemistry must drop a lower division requirement (CHEM 2261) that is not a pre-requisite to other degree requirements and increase upper division credits. In addition, we propose to convert the Periodic Table lecture from a two to three-hour credit lecture, as it has been taught for several years.

## **CURRICULUM PROPOSAL**

### **APPROVAL PAGE**

Proposal Title: Correction-Biochemistry (Periodic Table)	Degree, Deletion of CHEM 2261, Addition of CHEM 2361
College: Science Department:	Chemistry and Biochemistry
DEPARTMENT CHAIR- Carlos Cabrera	
I have read the enclosed proposal and a	approve this proposal on behalf of the department.
MRhy	
Signature	Date
COLLEGE CURRICULUM COMMITTEE	CHAIR – Nancy Marcus
I have read the enclosed documents an committee.	d approve the proposal on behalf of the college curriculum
n. Mareus	3-21-22
Signature	Date
COLLEGE DEAN – Robert Kirken	
I have read the enclosed documents an that the necessary funds will be allocat	d approve the proposal on behalf of the college. I certify ed by the college in support of this proposal.
Bolatakul	3/21/22
Signature	Date

### **COURSE DEACTIVATION FORM**

### All fields below are required

College: Science Department: Chemistry and Biochemistry Effective

term: Spring 2023

Rationale for deactivating the courses:

The Periodic Table lecture has been taught as a three hour lecture for many years. Students should receive the appropriate credit for this course.

Courses to be deactivated: (You may list several on the same sheet)

Course Prefix and Number	Course Title	Effective Term
Ex. POLS 2310	Introduction to Politics	Fall 2018
CHEM 2261	Periodic Table	Spring 2023

### **COURSE ADD**

### All fields below are required **Department: Chemistry and Biochemistry** College: Science Effective Term: Spring 2023 Rationale for adding the course: The Periodic Table lecture has been taught as a three hour lecture for many years. Students should receive the appropriate credit for this course. All fields below are required Subject Prefix and # CHEM 2361 Title (29 characters or fewer): The Periodic Table Dept. Administrative Code: 0603 **CIP Code** 400501 Departmental Approval Required □Yes ⊠No □GR $\Box$ DR Course Level ⊠UG ☐ Hybrid Course will be taught: ☐ Face-to-Face □ Online Course minimum grade: if N leave blank, if Y provide grade C How many times may course be repeated to satisfy minimum grade requirement? 3How many times may the course be taken for credit? (Please indicate 1-9 times): 1 Should the course be exempt from the "Three Repeat Rule?" □Yes ⊠No □ Pass/Fail ☐ Audit Grading Mode: ⊠ Standard Description and keywords (600 characters maximum): The Periodic Table: A survey course that expounds the principles of periodicity in the descriptive chemistry of the elements. Among the areas covered will be the alkali earth metals, the carbon/silicon/germanium/tin and lead group, the chemistry of nitrogen, phosphorus, and the halogen. Where possible, pertinent technical applications of the elements, and materials derived from them, will be presented, e.g., medicinal, inorganic polymer, and semi-conductor applications. 0 Other 0 Lab Hours 3 Lecture Hours Contact Hours (per week): Types of Instruction (Schedule Type): Select all that apply Thesis $\boxtimes A$ Lecture

<ul><li>□ C Practicum</li><li>□ D Seminar</li></ul>		Review (Study Skills)
☐ E Independent St		
☐ F Private Lesson	☐ Q Student Teachi	ng
elds below if applicable		
		t l' t the leading of the
course is taught during a par x., 8 weeks):	t of term in addition to a full 16-week t	erm please indicate the length of t
CCN (Use for lower division of	ourses) : none	
Prerequisite(s):		
Course Number/ Placement Test	Minimum Grade Required/ Test Scores	Concurrent Enrollment Permitted? (Y/N)
CHEM 2321	C	N
CHEM 2221	C	N
		N
CHEM 2324	С	N
Corequisite Course(s):	Equivalent Co	urse(s):
CHEM 2161		
Restrictions:		
Restrictions.		

Dissertation

□В

Laboratory

Classification	Sophomore	
Major	Chemistry and Biochemistry	

# **BS Biochemistry**

# **Degree Plan**

Required Credits: 120

Code	Title	Hours
Designated Core (All courses require a grade of	of C or better)	
Required Courses: 1		
MATH 1411	Calculus I	
PHYS 2420	Introductory Mechanics	
PHYS 2421	Introductory Electromagnetism	
University Core Curriculum		
Complete the University Core Curriculum rec	uirements.	42
Biochemistry Major		
Required Courses:		
CHEM 3131	Lab for Chemistry	1
CHEM 3330	Biochem I:Struc & Function	3
CHEM 3332	Biochem II: Metabol & Bioenerg	3
CHEM 4134	Structural Biochemistry Lab	1
CHEM 4334	Structural Biochemistry	3
CHEM 4335	Biophysical Chemistry	3
Required Chemistry Courses		
CHEM 1305 & CHEM 1105	General Chemistry and Laboratory for CHEM 1305	4
CHEM 1306 & CHEM 1106	General Chemistry and Laboratory for CHEM 1306	4
CHEM 2261	The Periodic Table	2
CHEM 2321 & CHEM 2221	Organic Chemistry I and Organic Chemistry I Lab	5

Code	Title	Hours
CHEM 2322 & CHEM 2222	Organic Chemistry II and Organic Chemistry II Lab	5
CHEM 3310 & CHEM 3110	Analytical Chemistry and Lab for Chemistry 3310	4
Other Required Courses		
BIOL 1305 & BIOL 1107	General Biology and Topics in Study of Life I	4
BIOL 1306 & BIOL 1108	Organismal Biology and Organismal Biology Laboratory	4
BIOL 3314 & BIOL 3115	Molecular Cell Biology and Molecular Cell Biol Laboratory	4
BIOL 3320	Genetics	3
MATH 1312	Calculus II	3
MICR 2340 & MICR 2141	General Microbiology and Gen Microbiology Laboratory	4
MICR 3449	Prokaryotic Molecular Genetics	4
STAT 2480	Elementary Statistical Methods	4
<b>Prescribed Elective Courses</b>		
Select Seven-nine Hours:		<del>7</del> 9
BIOL 4388	Mammalian Physiology	
CHEM 3151 & CHEM 3351	Lab for Chemistry 3351 and Physical Chemistry I	
CHEM 3152 & CHEM 3352	Lab for Chemistry 3352 and Physical Chemistry II	
CHEM 4176	Introduction to Research	
CHEM 4211 & CHEM 4212	Instrumental Meths Analyt Chem and Lab for Chemistry 4211	
CHEM 4328	Advanced Topics Organic Chem	
CHEM 4362	Structure of Matter	

Code	Title	Hours
<u>CHEM 4365</u>	Inorganic Chemistry	
<u>CHEM 4376</u>	Introduction to Research	
MICR 3144 & MICR 3343	Pathogenic Microbiology Lab and Pathogenic Microbiology	
MICR 3146 & MICR 3345	Microbial Physiology Lab and Microbial Physiology	
MICR 4329	Epidemiology	
MICR 4351	General Virology	
MICR 4355	Medical Mycology	
ZOOL 4181	Vertebrate Physiology Methods	
ZOOL 4384	Neurobiology	
Total Hours		120
1 Although the UTEP choice is larger, these of both the core and the major.	choices satisfy the requirements of	

2 A total of thirty-seven hours of upper division coursework is required of all Bachelor of Science degrees.

C Course requires a grade of C or better.

# **BS** Chemistry

# Degree Plan

Required Credits: 120

Code	Title	Hours
Designated Core (All courses req	quire a grade of C or better) 1	
Required Courses:		
MATH 1411	Calculus I	
PHYS 2420	Introductory Mechanics	
PHYS 2421	Introductory Electromagnetism	
<b>University Core Curriculum</b>		
Complete the University Core Cur	riculum requirements.	42
Chemistry Major		
Required Courses:		
<u>CHEM 1105</u>	Laboratory for CHEM 1305 <sup>c</sup>	1
<u>CHEM 1106</u>	Laboratory for CHEM 1306 <sup>c</sup>	1
<u>CHEM 1305</u>	General Chemistry <sup>c</sup>	3
<u>CHEM 1306</u>	General Chemistry <sup>c</sup>	3
<u>CHEM 2161</u>	Laboratory for CHEM 2261 <sup>c</sup>	1
<u>CHEM 2221</u>	Organic Chemistry I Lab <sup>c</sup>	2
<u>CHEM 2222</u>	Organic Chemistry II Lab <sup>c</sup>	2
<u>CHEM 2261 2361</u>	The Periodic Table <sup>c</sup>	<u>3</u> 2
<u>CHEM 2321</u>	Organic Chemistry I <sup>c</sup>	3
<u>CHEM 2322</u>	Organic Chemistry II <sup>c</sup>	3
<u>CHEM 3110</u>	Lab for Chemistry 3310	1

Code	Title	Hours
<u>CHEM 3151</u>	Lab for Chemistry 3351	1
<u>CHEM 3152</u>	Lab for Chemistry 3352	1
<u>CHEM 3301</u>	Molecular Modeling & Chem Info	3
CHEM 3310	Analytical Chemistry	3
CHEM 3330	Biochem I:Struc & Function	3
or <u>CHEM 3332</u> CHEM 3351	Biochem II: Metabol & Bioenerg  Physical Chemistry I	3
<u>CHEM 3352</u>	Physical Chemistry II	3
<u>CHEM 4165</u>	Inorganic Chemistry Lab	1
CHEM 4211	Instrumental Meths Analyt Chem	2
CHEM 4212	Lab for Chemistry 4211	2
<u>CHEM 4328</u>	Advanced Topics Organic Chem	3
CHEM 4365	Inorganic Chemistry	3
MATH 1312	Calculus II	3
MATH 2313	Calculus III	3
RWS 3359	Technical Writing	3
No Minor-Field of Study		
(Complete 109 hours from the division)	courses below; at least 8 hours must be upper-	<u>9</u> 10
BIOL 3320	Genetics	
BIOL 3351	Toxicology	
<u>CHEM 3131</u>	Lab for Chemistry	
<u>CHEM 3332</u>	Biochem II: Metabol & Bioenerg	
<u>CHEM 4176</u>	Introduction to Research	

Code	Title	Hours
<u>CHEM 4335</u>	Biophysical Chemistry	
<u>CHEM 4376</u>	Introduction to Research	
Electives		
Select <u>86</u> additional hours, with departmental approval		<u>86</u>
<b>Upper Division Requirement</b>		
Select a total of thirty-seven hours of upper division course work <sup>2</sup>		
<b>Total Hours</b>		120

Although the UTEP choice is larger, these choices satisfy the requirements of both the core and the major.

C Course requires a C or better

<sup>&</sup>lt;sup>2</sup> A total of thirty-seven hours of upper division coursework is required for all Bachelor of Science degrees.

# BS in Chemistry with a Concentration in 7-12 Physical Science

Code	Title	Hours
Background Check Required		
A complete background check is required of all students who wish to receive teacher certification in the State of Texas. Students will be required to pass a background check before certification will be conferred by the State Board of Educator Certification (SBEC).		
Designated Core (All courses require a grade of C or be	tter) 1	
Required Courses:		
MATH 1411	Calculus I	4
PHYS 2420	Introductory Mechanics	4
PHYS 2421	Introductory Electromagnetism	4
University Core Curriculum		
Complete the University Core Curriculum requirements.		42
Chemistry Major		
Required Courses:		
<u>CHEM 1105</u>	Laboratory for CHEM 1305 <sup>c</sup>	1
<u>CHEM 1106</u>	Laboratory for CHEM 1306 <sup>c</sup>	1
<u>CHEM 1305</u>	General Chemistry <sup>c</sup>	3
<u>CHEM 1306</u>	General Chemistry <sup>c</sup>	3
CHEM 2161	Laboratory for CHEM 2261 <sup>c</sup>	1

Code	Title	Hours
CHEM 2221	Organic Chemistry I Lab <sup>c</sup>	2
CHEM 2222	Organic Chemistry II Lab	2
<u>CHEM 2261 2361</u>	The Periodic Table <sup>c</sup>	<u>3</u> 2
<u>CHEM 2321</u>	Organic Chemistry I <sup>c</sup>	3
<u>CHEM 2322</u>	Organic Chemistry II <sup>c</sup>	3
CHEM 3110	Lab for Chemistry 3310	1
<u>CHEM 3151</u>	Lab for Chemistry 3351	1
CHEM 3152	Lab for Chemistry 3352	1
<u>CHEM 3310</u>	Analytical Chemistry	3
CHEM 3351	Physical Chemistry I	3
<u>CHEM 3352</u>	Physical Chemistry II	3
CHEM 4176	Introduction to Research	1
CHEM 4211	Instrumental Meths Analyt Chem	2
CHEM 4212	Lab for Chemistry 4211	2
CHEM 4365	Inorganic Chemistry	3
MATH 1312	Calculus II	3

Code	Title	Hours
PHYS 3323	Physical Optics	3
PHYS 4355	Intro Quantum Mechanics	3
MATH 2313	Calculus III	3
Secondary Education Minor		
Required Courses:		
BED 4317	Tch & Empwr ELLs in Sec Schls	3
EDPC 3300	Developmental Variations	3
RED 3342	Content Area Literacy	3
SCED 3311	Curriculum Plan- Secondary Schl	3
SCED 4368	Teaching Science in Sec School	3
SCED 4691	Student Teaching in Sec School	6
Upper Division Requirement		
Select a total of thirty-seven hours of upper division course	work <sup>2</sup>	37
Total Hours		120

<sup>&</sup>lt;sup>1</sup> Although the UTEP choice is larger, these choices satisfy the requirements of both the core and the major.

<sup>&</sup>lt;sup>2</sup> A total of thirty-seven hours of upper division coursework is required for all Bachelor of Science degrees.

C Course requires a C or better.

# BS in Chemistry with a Concentration in 7-12 Science

Code	Title	Hours
<b>Background Check Required</b>		
A complete background check is required of all students what teacher certification in the State of Texas. Students will be background check before certification will be conferred by Educator Certification (SBEC).	required to pass a	
Designated Core (All courses require a grade of C or be	tter) ¹	
Required Courses:		
BIOL 1107	Topics in Study of Life I	1
BIOL 1108	Organismal Biology Laboratory	1
BIOL 1305	General Biology	3
BIOL 1306	Organismal Biology	3
MATH 1411	Calculus I	4
University Core Curriculum		
Complete the University Core Curriculum requirements.		42
Chemistry Major		
Required Courses:		
<u>CHEM 1105</u>	Laboratory for CHEM 1305 <sup>c</sup>	1
<u>CHEM 1106</u>	Laboratory for CHEM 1306 °	1
<u>CHEM 1305</u>	General Chemistry <sup>c</sup>	3

Code	Title	Hours
<u>CHEM 1306</u>	General Chemistry <sup>c</sup>	3
<u>CHEM 2161</u>	Laboratory for CHEM 2261-	4
<u>CHEM 2221</u>	Organic Chemistry I Lab	2
CHEM 2222	Organic Chemistry II Lab	2
CHEM 2261 2361	The Periodic Table <sup>c</sup>	<u>3</u> 2
<u>CHEM 2321</u>	Organic Chemistry I <sup>c</sup>	3
<u>CHEM 2322</u>	Organic Chemistry II <sup>c</sup>	3
CHEM 3110	Lab for Chemistry 3310	1
<u>CHEM 3151</u>	Lab for Chemistry 3351	1
CHEM 3152	Lab for Chemistry 3352	1
<u>CHEM 3301</u>	Molecular Modeling & Chem Info	3
<u>CHEM 3310</u>	Analytical Chemistry	3
<u>CHEM 3351</u>	Physical Chemistry I	3
CHEM 3352	Physical Chemistry II	3
<u>CHEM 3330</u>	Biochem I:Struc & Function	3

Code	Title	Hours
or <u>CHEM 3332</u>	Biochem II: Metabol & Bioenerg	
<u>CHEM 4176</u>	Introduction to Research	1
GEOL 1211 & GEOL 1111	Principles of Earth Sciences and Principles of Earth Sci - Lab	3
MATH 1312	Calculus II	3
MATH 2313	Calculus III	3
PHYS 2420	Introductory Mechanics	4
PHYS 2421	Introductory Electromagnetism	4
Secondary Education Minor		
Required Courses:		
BED 4317	Tch & Empwr ELLs in Sec Schls	3
EDPC 3300	Developmental Variations	3
RED 3342	Content Area Literacy	3
SCED 3311	Curriculum Plan- Secondary Schl	3
SCED 4368	Teaching Science in Sec School	3
SCED 4691	Student Teaching in Sec School	6

Code	Title	Hours
Select a total of thirty-seven hours of upper divis	sion course work 2	37
Total Hours		120

<sup>&</sup>lt;sup>1</sup> Although the UTEP choice is larger, these choices satisfy the requirements of both the core and the major.

C Course requires a C or better

<sup>&</sup>lt;sup>2</sup> A total of thirty-seven hours of upper division coursework is required for all Bachelor of Science degrees.

#### **Bachelor of Science Degree Plan**

Updated:

NCM

Bell Hall 100 747-5536

El Paso, Texas 79968-0509

The University of Texas at El Paso

Note: Unofficial - Based on New Catalog

**Biochemistry** (120/37)

Address

Date

Name Major: Biochemistry

Minor: No Mandatory Minor

Department Chair: Dr. Carlos Cabrera

Director of Academic Advising: Dr. Tina Garza

B grades in Lower Division Math courses & Core Curriculum

2.0 GPA in the major; 2.0 overall GPA

Academic Advising: Dr. Jose Peralta Videa

#### REQUIREMENTS

	Items Subjects	Has	Needs		Items Subjects Has	Needs
Ī	General Education	S SAME		В	MAJOR: BIOCHEMISTRY	
+	(Minimum "C" grades required)				CHEM 3330	3
t					CHEM 3131	1
†	Communication:		6		CHEM 3332	3
1	COMM 1611, ESOL 1311, ESOL 1312,				CHEM 4334	3
1	RWS 1301, RWS 1302, RWS 1601				CHEM 4335	3
t					CHEM 4134	1
1	Mathematics					
t	MATH 1411		4			
t	MATH 1312		3			
1	MATTER STATE			С	Required CHEM Courses	
1	Life and Physical Sciences **		8		CHEM 1305-1105	4
1	PHYS 2420 and PHYS 2421				CHEM 1306-1106	4
1	11110 E 120 dild 11110 E 121				CHEM 2261	0
$\dashv$					CHEM 2321-2221	5
+					CHEM 2322 - 2222	5
	Language, Philosophy, & Culture	1			CHEM 3310-3110	4
-	ENGL 2311, 2312 2313, 2314, 2318,		3			
	HIST 2301, 2302, PHIL 1301, 2306					
	FREN 2322, RS 1301, SPAN 2340,					
	WS 2300, WS 2350			D	Other Requirements:	
	110 2000, 110 2000				BIOL 1305-1107, BIOL 1306-1108	8
	Creative Arts				MICR 2340-2141	4
5	ART 1300, ARTH 1305, ARTH 1306.		3		BIOL 3320	3
	DANC 1304, FILM 1390, MUSL 1321,	1	+		BIOL 3314-3115	4
	MUSL 1324, MUSL 1327, THEA 1313				MICR 3449	4
	WIGGE 1924, WIGGE 1927, THEX 1919				STAT 2480	4
	American History					
	HIST 1301		3			
	HIST 1302		3			19.5
	11101 1002					
	Government/Political Science			E	Electives:	9
	POLS 2310	_	3		CHEM 3352-3152, CHEM 4211-4212	
-	POLS 2311		3		CHEM 4328, CHEM 4176, CHEM 4376	
-	1 020 2011				CHEM 4365, CHEM 4362	
	Social and Behavioral Sciences				BIOL 4223-4322, 4388	
-	ANTH 1301, 1302, 1310, 2320, CE 2326,		3		MICR 3328, 4329, 4351	
-	COMM 2350, 2372, ECON 2303, 2304,				MICR 4355, 4453; ZOOL 4380-4181	
	EDPC 1301, EDU 1342, ENGL 2320,				ZOOL 4384	
	EDF G 1301, EDG 1342, ENGL 2320,				MICR 3443 or MICR 3343-3144	
_	SOCI 1301, SOCI 1310				MICR 3445 or MICR 3345-3146	
_	SOCI 1301, SOCI 1310	+	+		CHEM 3351-3151	
	Component Area Option	3 3 2				
	BUSN 1301, COMM 1301, COMM 1302,		6	F	Fast Track Chemistry Courses	17
	CS 1310, CS 1320, SCI 1301, UNIV 1301					
	55 .5.5, 55 .525, 55					
-						
-						
-						
-						
-					TOTAL HOURS	12

#### **Bachelor of Science Degree Plan**

Updated:

NCM

Date

Bell Hall 100 747-5536

Name

The University of Texas at El Paso El Paso, Texas 79968-0509

Chemistry

Address

Note: Unofficial - Based on New Catalog

Major: Chemistry Minor: Not Mandatory

Director of Academic Advising: Dr. Tina Garza Department Chair: Dr. Carlos Cabrera

Pre-Med Advising: Dr. Gail Arnold

At Least C grades in Lower Division Math Courses & Core Curriculum

At Least C grades in Lower Division Courses in the Major & Minor

At Least 2.0 GPA overall and in the major

Academic Advising in Chemistry: Dr. Jose Peralta Videa

#### REQUIREMENTS

	Items Subjects	Has	Needs		Items Subjects Has	Needs
Α	General Education	1		В	MAJOR: Chemistry	
	(Minimum "C" grades required)	1771-151			CHEM 1305-1105	4
					CHEM 1306-1106	4
1	Communication:		6		CHEM <del>2261</del> -2361-2161	4
	COMM 1611, ESOL 1311, ESOL 1312,	KS JA			CHEM 2321-2221	5
	RWS 1301, RWS 1302, RWS 1601				CHEM 2322-2222	5
		700	3 3		CHEM 3301	3
2	Mathematics				CHEM 3310-3110	4
	MATH 1411		4		CHEM 3351-3151	4
	MATH 1312	1.77	3		CHEM 3352-3152	4
					CHEM 4211-4212	4
3	Life and Physical Sciences **		8		CHEM 4365-4165	4
-	PHYS 2320-2120 and				CHEM 3330	3
	PHYS 2321-2121				CHEM 4328	3
	F1113 2321-2121				0.12.11.1020	
4	Language, Philosophy, & Culture					
4	ENGL 2311, 2312 2313, 2314, 2318,		3			
	HIST 2301, 2302, PHIL 1301, 2306		-	С	No Minor - Field of Study	9
_				-	At least 8 of the 9 hours-Must be upper-	
-	FREN 2322, RS 1301, SPAN 2340,		_		division courses. Chose From:	
	WS 2300, WS 2350			1	CHEM 4176, 4376, 4335, 3332, 3131,	_
_		-	$\overline{}$	$\vdash$	CHEM 4380, 4362, BIOL 3351, 3320	_
5	Creative Arts	-			CHEM 4380, 4302, BIOL 3331, 3320	
	ART 1300, ARTH 1305, ARTH 1306.		3			_
	DANC 1304, FILM 1390, MUSL 1321,	-		$\vdash$		
	MUSL 1324, MUSL 1327, THEA 1313					_
6	American History	-	+			
-	HIST 1301		3	D	Additional Required Course(s)	
	HIST 1302		3	-	MATH 2313	3
_	HIST 1302	-	-		ENGL 3359	3
7	O MP-INI C-i				E14GE 3003	
/	Government/Political Science	+	3	-		
	POLS 2310	-	3	-		
	POLS 2311	-	3	$\vdash$		_
1		-	-	$\vdash$		_
8	Social and Behavioral Sciences	-				_
	ANTH 1301, 1302, 1310, 2320, CE 2326,		3	-		
	COMM 2350, 2372, ECON 2303, 2304,		-	-	Florition	-
	EDPC 1301, EDU 1342, ENGL 2320,			E	Electives	-
	GEOG 1310, LING 2320, 2340, PSYC 1301,				Additional semester hours	6
	SOCI 1301, SOCI 1310					
9	Component Area Option			F	Fast Track Chemistry Courses	
	BUSN 1301, COMM 1301, COMM 1302,		6			
	CS 1310, CS 1320, SCI 1301, UNIV 1301			-		
				-		
					TOTAL HOURS 0	120

120

4

4 3 3

9

3 41

COMMENTS:

Bell Hall 100 747-5536 The University of Texas at El Paso El Paso, Texas 79968-0509

#### **Bachelor of Science Degree Plan**

Updated:

NCM 9-4-20

Note: Unofficial - Based on New Catalog **Chemistry - Secondary Education Minor** 

(120/37)

Name

Address

Director Academic Advising: Dr. Tina Garza

Major: Chemistry

Department Chair: Dr. Carlos Cabrera

Minor: Secondary Education

Certification: 7 - 12 Physical Science

Director of Academic Advising: Dr. Tina garza

To declare a minor in Secondary Education you must have an overall and math/science UTEP GPA of at least 2.75. Before you can take the State Content Exam, you have two tries to pass the UTEP Qualifying Exam.

Academic Advising in Chemistry: Dr. Jose Peralta Videa

#### REQUIREMENTS \*\*\*

ALESSE E	Items Subjects	Has	Needs		Items Subjects	Has	Needs	Upper
•	General Education	1105	Hoods	В	MAJOR: Chemistry (44/22)			
A					CHEM 1305-1105		4	2.6.5
+	(Minimum "C" grades required)				CHEM 1306-1106		4	
_	Communication:		6		CHEM <del>2261</del> -2361-2161		4	
1			-		CHEM 3310-3110		4	1
+	COMM 1611, ESOL 1311, ESOL 1312,	_			CHEM 2321-2221		5	
+	RWS 1301, RWS 1302, RWS 1601			-	CHEM 2322-2222		5	1
-				$\vdash$	CHEM 3351-3151		4	
2	Mathematics	_	-		CHEM 3351-3151		4	
$\dashv$	MATH 1411		4	-	CHEM 4211-4212		4	
_	MATH 1312	-	3	-			3	
_				-	CHEM 4365		1	1
3	Life and Physical Sciences **			-	CHEM 4176		-	1
	See Section D		_	-				1
			-					-
				-			-	1
								-
4	Language, Philosophy, & Culture	-		С	Minor: Secondary Education (21/21)		-	-
	ENGL 2311, 2312 2313, 2314, 2318,		3	-	EDPC 3300		3	-
	HIST 2301, 2302, PHIL 1301, 2306				SCED 3311		3	+
	FREN 2322, RS 1301, SPAN 2340,				SCED 3317		3	-
	WS 2300, WS 2350				RED 3342		3	-
					SCED 4368		3	-
5	Creative Arts				SCED 4691 Internship		6	-
	ART 1300, ARTH 1305, ARTH 1306.		3		Note: Student must pass the UTEP			-
	DANC 1304, FILM 1390, MUSL 1321,		10.17		Qualifying Exam before being admitted			
	MUSL 1324, MUSL 1327, THEA 1313				to Teacher Education and taking any			
_	MOGE 1021, MOGE 1021, The				education course.			
6	American History							
-	HIST 1301		3	D	Additional Required Courses			
_	HIST 1302		3		MATH 2313		3	
_	HIST 1302		+ -		PHYS 2320-2120, -2321-2121		8	
_	Government/Political Science				PHYS 3323, PHYS 4355		6	1
7			3		11110 0020, 11110 1000			
_	POLS 2310		3					7
_	POLS 2311		- 3	_				
_		-	-	_		<b>—</b>		1
8	Social and Behavioral Sciences		2	E	Electives			1
	ANTH 1301, 1302, 1310, 2320, CE 2326,	-	3	-			0	1
	COMM 2350, 2372, ECON 2303, 2304,		-		Upper Division	_		-
	EDPC 1301, EDU 1342, ENGL 2320,	-	+	I -			+	-
	GEOG 1310, LING 2320, 2340, PSYC 1301,	-		-	Note: Defere you can declare a miner in		+	-
	SOCI 1301, SOCI 1310			-	Note: Before you can declare a minor in	-	+	-
		-	-	1	Secondary Education, you must satisfy the following criteria: Overall GPA at least 2.75,	-	+	-
9	Component Area Option		-	-		-	_	1
	BUSN 1301, COMM 1301, COMM 1302,	-	6	-	majors GPA at least 2.75, complete all your	1		-
	CS 1310, CS 1320, SCI 1301, UNIV 1301			-	lower division math and science courses and		-	
				-	MATH 3325, 3329, STAT 3330 or 3325, and	-	+	
			-	-	pass the UTEP Content Qualifying Exam	+	-	-
					with at score of at least 80% within two	-	-	-
				1	tries.	-	-	-
				1		-	-	
						0	120	4

Bell Hall 100 747-5536 The University of Texas at El Paso El Paso, Texas 79968-0509

#### **Bachelor of Science Degree Plan**

Updated:

NCM

Note: Unofficial - Based on New Catalog **Chemistry - Secondary Education Minor** 

(120/37)

Name

Address

Date

Major: Chemistry

Minor: Secondary Education

Certification: 7 - 12 Science

Department Chair: Dr. Carlos Cabrera

Director of Academic Advising: Dr. Tina Garza

To declare a minor in Secondary Education, you must have an overall and math/science UTEP GPA of at least 2.75.

You have to take the UTEP qualifying exam when you have completed all your lower-division math and science courses. You have

have two tries to pass the qualifying exam.

Academic Advising in Chemistry: Dr. Jose Peralta Videa

#### REQUIREMENTS \*\*\*

	Items Subjects	Has	Needs		Items Subjects	Has	Needs	Uppe
1	General Education			В	MAJOR: Chemistry (37/15)			
T	(Minimum "C" grades required)		T. VI		CHEM 1305-1105		4	
T					CHEM 1306-1106		4	
Ť	Communication:		6		CHEM- <del>2261</del> -2361- <del>2161</del>		3	
Ť	COMM 1611, ESOL 1311, ESOL 1312,				CHEM 3310-3110		4	
t	RWS 1301, RWS 1302, RWS 1601				CHEM 2321-2221		5	
†					CHEM 2322-2222		5	
†	Mathematics				CHEM 3351-3151		4	
†	MATH 1411		4		CHEM 3352-3152	- 1	4	
+	MATH 1312		3		CHEM 3330		3	
†	111/11/10/12				CHEM 4176		1	
†	Life and Physical Sciences **							
-	See Section D							
1								
1	Language, Philosophy, & Culture			C	Minor: Secondary Education (21/21)			
1	ENGL 2311, 2312 2313, 2314, 2318,		3		EDPC 3300		3	
	HIST 2301, 2302, PHIL 1301, 2306				SCED 3311		3	
	FREN 2322, RS 1301, SPAN 2340,				SCED 3317		3	
T	WS 2300, WS 2350				RED 3342		3	
Т					SCED 4368		3	
7	Creative Arts				SCED 4691 Internship		6	
1	ART 1300, ARTH 1305, ARTH 1306.		3		Note: Student must pass the UTEP			
7	DANC 1304, FILM 1390, MUSL 1321,				Qualifying Exam before being admitted			
7	MUSL 1324, MUSL 1327, THEA 1313				to Teacher Education and taking any			
7					education course.			
	American History							
٦	HIST 1301		3					
	HIST 1302		3					
				_				
	Government/Political Science	_		D	Additional Required Courses		8	
	POLS 2310		3	_	BIOL 1305-1107, BIOL 1306-1108	-	3	
	POLS 2311		3	_	GEOL 1211-1111,	-	_	
					PHYS 2320-2120	-	4	
	Social and Behavioral Sciences				PHYS 2321-2121	-	4	
	ANTH 1301, 1302, 1310, 2320, CE 2326,		3	100	MATH 2313	-	3	
	COMM 2350, 2372, ECON 2303, 2304,					-		
	EDPC 1301, EDU 1342, ENGL 2320,			E	Electives	-		
	GEOG 1310, LING 2320, 2340, PSYC 1301,				Upper Division Elective	_	0	
	SOCI 1301, SOCI 1310							
					Note: Before you can declare a minor in		-	
	Component Area Option				Secondary Education, you must satisfy the			
	BUSN 1301, COMM 1301, COMM 1302,		6		following criteria: Overall GPA at least 2.75,			
	CS 1310, CS 1320, SCI 1301, UNIV 1301				majors GPA at least 2.75, complete all your	-		
					lower division math and science courses and			
١				1	MATH 3325, 3329, STAT 3330 or 3325, and			
					pass the UTEP Content Qualifying Exam			
					with at score of at least 80% within two			
		_			4.1			
					tries.	+	_	Dr.

0 ncy Marcus of Science

# Periodic Table



CHEM 2261, Spring 2021

#### **Class Topics**

This course provides an introduction to the periodic table and its organization while providing a survey of the bonding and chemistry of its elements. This is a concepts based course that requires little memorization of facts but necessitates critical thinking skills.

Days and Times:

Mondays and Wednesdays

10:30 am - 11:50 am

Instructor:

Dr. Skye Fortier

Alejandra Gomez

TA:

mgomeztorr@miners.utep.edu

Location:

Virtual

Office:

CCSB 2.0404

Office Hours:

Fridays 9:00 am – 10:00 am

and by appointment

**Course Drop Deadline:** 

April 1st, 2021

Contact information:

747-5195, asfortier@utep.edu

#### Textbook:

Pannell & Haiduc, The Periodic Table – A Classification of Elements and their Compounds

#### **Supplemental Texts:**

The following texts are useful references and, from time to time, may be used to supplement class discussion. These texts need not be purchased.

Greenwood and Earnshaw, Chemistry of the Elements DeKock & Gray, Chemical Structure and Bonding Shriver & Weller, et al., Inorganic Chemistry House, Inorganic Chemistry

Additional literature material will also be provided for review and discussion.

### Topics and their order of discussion are subject to change, but are likely to include:

- Introduction to Quantum Theory of Electrons
- Atomic Properties and Periodic Trends
- Bonding Models using Valence Bond Theory
- Molecular Shapes and Size
- Elemental Groups and their Representative Chemistry

<sup>†</sup>Students are expected to know how to draw Lewis dot structures and must be familiar with VSEPR theory <sup>‡</sup>CHEM 2321 Organic Chemistry I is a prerequisite to this course.

#### Grading\*:

Content Exam 10%
Midterm Exam 30%
Forum Participation 15%
Comprehensive Final Exam 45%

The final examination may include an oral component worth 20% of the exam grade.

Your grade in the course is based on your performance on three examinations, and your participation in online forum discussions that will be posted to Blackboard on a regular basis. Forum discussions will be available for a period of time in which you may participate for a grade. A grade cannot be received after a forum discussion closes. Additionally, your forum discussion participation grade will depend on the apparent effort placed in the exercise.

No additional work will be assigned for extra credit other than that detailed below.\*\*

- \*However, if you perform poorly on the midterm exam and receive a failing grade but successfully pass the final examination with an A or B (prior to any curve or grade adjustments), the midterm grade will be dropped.
- \*\*Extra Credit: There may potentially be an opportunity to earn additional credit towards your exam grades on the following date:

- TBD

On this date, an invited seminar speaker will participate in an hour long Q&A session that is intended for student audiences. Full attendance at the event will earn an additional 10% on the final exam. Attendance is not mandatory but is highly encouraged.

Time and location is subject to change or cancellation.

#### **Class Format and Participation:**

The course will be held virtually and asynchronously with lectures posted regularly or entirely in advance on Blackboard. The asynchronous schedule has been adopted to provide students with the maximum flexibility possible during this time. As homework will not be assigned during the course, it is incumbent upon you, the student, to make sure that you consistently invest the time necessary to digest and comprehend the material.

Office hours will be offered in-person and will also be held virtually. Student attendance and participation is encouraged.

#### Missing an Exam:

If you miss an exam, a valid and documented excuse must be provided (e.g. medical emergency, school field trip or conference attendance, court appearance).

In the case that you are absent due to falling ill, a note from a licensed medical professional (i.e. medical doctor, nurse practitioner, or UTEP Health Center) is required. Otherwise, you must provide compelling evidence of illness or injury, and the decision to make-up the exam will fall at my sole discretion.

If you miss an exam because of a travel issue (e.g. missing your flight or flight cancellation) on a non-UTEP related trip, extensive documentation must be provided demonstrating circumstances beyond your control. You must notify me immediately of your situation. I will evaluate your case and qualification for a make-up exam will be made at my discretion.

It is your responsibility to contact me at the email address listed above to schedule time for a re-take. If you do not contact me at the correct email address to make arrangements within 3 days of the original exam date, a failing grade of 0 will be automatically assigned.

#### Make-up exam:

The make-up exam may mirror the original exam, be slightly altered, or altogether changed in form, format and content at my discretion. In the latter two cases, best efforts will always be made to maintain the same level of difficulty, but this is not guaranteed.

#### **Special Accommodations:**

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.

If you are designated special accommodations by CASS, it is your responsibility to coordinate these exam accommodations between CASS and me. If CASS will proctor the examination, it must be scheduled within 3 days of the exam date. Otherwise, you will not be allowed to take the exam and will receive a failing grade of 0 (unless there is a special exception as written in the "MISSING AN EXAM" section above).