

## Chemistry Curriculum Facts CNM to UNM

**\*\*\*\*\*IMPORTANT: To assure accuracy based on individual curriculum, student must meet with advisors at CNM and UNM\*\*\*\*\***

For the catalog year of 2014/2015 The College of Arts and sciences has reduced the total amount of credit hours required from 128 to 120 credit total hours for the Chemistry BS degree program.

Course transfer information:

- UNM's ENGL 101 and ENGL 102 have received new course numbers: ENGL 110 and ENGL 120. Same course as before, new numbers.
  - ENGL 101= ENGL 110
  - ENGL 102= ENGL 120
- IT 1010 IT 1010
  - All CNM students are eligible to challenge IT 1010. IT 1010 is not a UNM B.S. requirement, but is a CNM A.S. requirement. UNM does not accept credit hours for the completion of IT 1010 challenge exam.
- MATH 2910 Applied Ordinary Differential Equations
  - MATH 2910 Applied Ordinary Differential Equations will satisfy MATH 316 Applied Ordinary Differential Equations requirements, but will maintain lower level status and not fulfill upper division degree requirements.
- English 2219
  - English 2219 can be completed if student tests out of English 1101; students are recommended to take English 2219 to fulfill Communications Requirements. Course is also a requirement for distributed minor.
- CHEM 2710/2792 Organic Chemistry I
  - CHEM 2710/2792 Organic Chemistry I at CNM will satisfy UNM CHEM 301/303L Organic Chemistry I requirement, but the course will maintain lower level status and will not fulfill upper division degree requirements.
- CHEM 2810/2892 Organic Chemistry II
  - CHEM 2810/2892 Organic Chemistry II at CNM will satisfy UNM CHEM 302/304L Organic Chemistry II requirement, but the course will maintain lower level status and will not fulfill upper division degree requirements.

### Organic Chemistry Sequence:

UNM Organic Chemistry I and II are upper division courses (courses numbered 300 and above) and if completed at UNM allow students following the CNM to UNM roadmaps take the place of 8 credit hours of upper division electives as shown in semesters five through eight on the map. The upper division electives are reflected on the roadmap for the purpose of satisfying the College of Arts and Sciences 54 upper division credit hour degree requirement. Taking Organic Chemistry I and II at UNM allows students to transfer the courses back to CNM, fulfilling the CNM A.S. requirement, contributing to the UNM College of Arts and Sciences upper division requirement, and potentially completing the degree program with a total of 122 credit hours. For more information, please contact an Advisor.

## **Biochemistry**

Students intending on pursuing a Biochemistry degree at UNM can elect to complete the Chemistry A.S. degree requirements with the addition of Biology 1510/1592 and Biology 1610/1692. The Chemistry AS with additional courses satisfy UNM Biochemistry degree program requirements. Completing additional Biology courses does not grant Biochemistry BS degree. Please see UNM advisor for more information.

### **For further questions regarding Transfer or Advisement in the STEM fields, contact:**

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## ***Developing STEM Pathways for the Future***



CNM Chemistry A.S. to UNM Chemistry B.S.  
Four Year Road Map

Course Subject and Title	Cr. Hrs.	Major	Core	UNM Equivalent/Prerequisites	UNM Major
<b>Semester One:</b>					
CHEM 1710/1792	4	4	4	CHEM 122/122L; Pre-req: MATH 1310	4
MATH 1315	3	3	3	MATH 122 (CNM pre-req Math 1310 or appropriate placement score)	
ENG 1101	3	3	3	ENG 110	3
IT 1010	3	3	3	CS 150L	3
Social/Behavioral Science	3	3	3		3
<b>Total:</b>	<b>16</b>	<b>16</b>	<b>13</b>		<b>10</b>

Course Subject and Title	Cr. Hrs.	Major	Core	UNM Equivalent/Prerequisites	UNM Major
<b>Semester Two:</b>					
CHEM 1810/1892	4	4	4	CHEM 122/122L; Pre-req: CHEM 1710/1792 & Math 1315	4
MATH 1410	3	3	3	MATH 123 (CNM pre-req Math 1315 or 1415 or appropriate placement score)	
MATH 1415	4	4	4	MATH 150 (CNM pre-req Math 1315 or appropriate placement score)	
ENG 1102	3	3	3	ENG 120	3
<b>Total:</b>	<b>14</b>	<b>7</b>	<b>7</b>		<b>7</b>

Course Subject and Title	Cr. Hrs.	Major	Core	UNM Equivalent/Prerequisites	UNM Major
<b>Summer Semester:</b>					
<b>Foreign Language</b>	3				3
MATH 1710	4	4	4	MATH 182; Pre-req: MATH 1410 & Math 1415	4
PHYS 1710/1792	5	5	5	PHYS 160/160L; Co or pre-req MATH 1710	4
Fine Arts	3	3	3		3
<b>Total:</b>	<b>15</b>	<b>12</b>	<b>7</b>		<b>14</b>

Course Subject and Title	Cr. Hrs.	Major	Core	UNM Equivalent/Prerequisites	UNM Major
<b>Semester Three:</b>					
*CHEM 2710/2792	4	4	4	CHEM 301/301L; Pre-req: CHEM 1810/1892	4
MATH 1715	4	4	4	MATH 163; Pre-req: MATH 1710	4
PHYS 1810/1892	5	5	5	PHYS 161/161L; Pre-req: PHYS 1710/1792 & Math 1715	4
Humanities	3	3	3		3
<b>Total</b>	<b>16</b>	<b>16</b>	<b>3</b>		<b>15</b>

Course Subject and Title	Cr. Hrs.	Major	Core	UNM Equivalent/Prerequisites	UNM Major
<b>Semester Four:</b>					
*CHEM 2810/2892	4	4	4	CHEM 302/302L; Pre-req: CHEM 2710/2792	4
MATH 2210	4	4	4	MATH 264; Pre-req: MATH 1715	4
COMM 1130	3	3	3	CJ 130 (appropriate placement score)	
Social/Behavioral	3	3	3		3
Humanities	3	3	3		3
<b>Total</b>	<b>17</b>	<b>17</b>	<b>9</b>		<b>17</b>

Course Subject and Title	Cr. Hrs.	Major	Core	UNM Equivalent/Prerequisites	UNM Major
<b>Summer Semester:</b>					
<b>A.S. Totals</b>	<b>78</b>	<b>68</b>	<b>39</b>		<b>63</b>

Course Subject and Title	Cr. Hrs.	Major	Minor	UD Hrs	Notes
<b>Semester Five:</b>					
CHEM 311	3				Prerequisite: CHEM 122/124(CNM's CHEM 1810/1892), MATH 162(CNM's MATH 1710), PHYS 161(CNM's PHYS 1810); Pre or corequisite: Math 264(CNM's Math 2710)
CHEM 251L	4				Prerequisite: CHEM 122/124(CNM's CHEM 1810/1892) & 3-4 Credit Hrs
CHEM 325-498	3				Prerequisite: Math 264(CNM's Math 2710)
MATH 311	3				Prerequisite: Math 264(CNM's Math 2710)
ENGL 219	3				CNM offers equivalent: ENG 219
<b>Total:</b>	<b>16</b>	<b>3</b>	<b>3</b>	<b>9</b>	

Course Subject and Title	Cr. Hrs.	Major	Minor	UD Hrs	Notes
<b>Semester Six:</b>					
CHEM 312	3				Prerequisite: CHEM 122/124(CNM's CHEM 1810/1892), MATH 162(CNM's MATH 1710), PHYS 161(CNM's PHYS 1810); Pre or corequisite: Math 264(CNM's Math 2710)
CHEM 423L	4				Prerequisite: CHEM 251L & Math 162(CNM's Math 1710)
MATH 316	3				Prerequisite: Math 183; Pre or corequisite: CS 151L
Upper Division Elective	3				
Upper Division Elective	3				
<b>Total:</b>	<b>16</b>	<b>3</b>	<b>3</b>	<b>16</b>	

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\* Information about course on Curriculum Facts sheet

Course Subject and Title	Cr. Hrs.	Major	Minor	UD Hrs	Notes
<b>Semester Seven:</b>					
CHEM 411L	3				Prerequisite: CHEM 311 & CHEM 312 & CHEM 451L
CHEM 431	3				Prerequisite: CHEM 311 or CHEM 315
Upper Division Elective	3				
Upper Division Elective	3				
Upper Division Elective	3				
<b>Total:</b>	<b>15</b>	<b>0</b>	<b>15</b>		

Course Subject and Title	Cr. Hrs.	Major	Minor	UD Hrs	Notes
<b>Semester Eight:</b>					
CHEM 432L	3				Prerequisite: CHEM 301L & CHEM 431
CHEM 325-498	3				3-4-Credit Hrs
Upper Division Elective	3				
Upper Division Elective	3				
Upper Division Elective	3				
<b>Total:</b>	<b>15</b>	<b>0</b>	<b>15</b>		
<b>B.S. Totals</b>	<b>140</b>	<b>6</b>	<b>55</b>		

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Degree Transfer Agreement Fall 2013 – Summer 2016 based on 2013-2014 CNM and UNM Catalogs

**Central New Mexico Community College A.S. Chemistry***For transfer into***University of New Mexico B.S. Chemistry**

- This Degree Transfer Agreement fulfills all A.S. Chemistry requirements at CNM and Admissions requirements to UNM's Chemistry program.
- This Degree Transfer Agreement goes into effect beginning Fall 2013 and will be valid for admission into UNM's Arts and Sciences; Chemistry program through Summer 2016.
- **Pay attention to prerequisite course requirements** and plan courses accordingly. Prerequisites may be different at each institution. Please speak with your STEM Advisor.
- Prospective students must have a minimum overall 2.00 GPA (including transfer and UNM credit) and have completed all courses with a "C" or better; "C-" will not fulfill requirements.
- Chemistry courses must be taken in sequence: CHEM 121/123L, CHEM 122/124L, CHEM 301/303L, and CHEM 302/304L.

CNM A.S. Chemistry		UNM B.S. Chemistry	
<b>Computer Courses</b>			
IT 1010 (3) OR CHALLENGE EXAM	Introduction to Computers	<b>Not required for Chemistry majors at UNM, but meets A.S. requirement at CNM</b>	
<b>Mathematics Core</b>			
<b>Math placement is determined by Accuplacer exam, ACT or SAT scores.</b>			
MATH 1710 (4)	Calculus I	MATH 162 (4)	Calculus I
MATH 1715 (4)	Calculus II	MATH 163 (4)	Calculus II
MATH 2710 (4)	Calculus III	MATH 264 (4)	Calculus III
<b>Science Courses</b>			
<b>Take the Chemistry and Physics course sequences as listed below:</b>			
CHEM 1710 (3) CHEM 1792 (1)	General Chemistry I General Chemistry I Lab	CHEM 121 (3) CHEM 123L (1)	General Chemistry General Chemistry Lab
CHEM 1810 (3) CHEM 1892 (1)	General Chemistry II General Chemistry II Lab	CHEM 122 (3) CHEM 124L (1)	General Chemistry II General Chemistry II Lab
<sup>1</sup> CHEM 2710 (3) CHEM 2792 (1)	Organic Chemistry I Organic Chemistry I Lab	CHEM 301 (3) CHEM 303L (1)	Organic Chemistry Organic Chemistry Lab
<sup>2</sup> CHEM 2810 (3) CHEM 2892 (1)	Organic Chemistry II Organic Chemistry II Lab	CHEM 302 (3) CHEM 304L (1)	Organic Chemistry Organic Chemistry Lab

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PHYS 1710 (4)	Physics for Scientists and Engineers I		PHYC 160 (3)	General Physics
PHYS 1792 Lab I (1)	Physics for Scientists and Engineers I		PHYC 160L (1)	General Physics Lab
PHYS 1810 (4)	Physics for Scientists and Engineers II		PHYC 161 (3)	General Physics
PHYS 1892 II Lab I (1)	Physics for Scientists and Engineers II		PHYC 161L (1)	General Physics Lab
<b>Communications Core</b>				
ENG 1101 (3)	College Writing		ENGL 101 (3)	Composition I: Exposition
ENG 1102 (3)	Analytic & Argumentative Writing		ENGL 102 (3)	Composition II: Analysis & Argument
COMM 1130 (3)	Public Speaking		CJ 130 (3)	Public Speaking
<b>Humanities Core</b> Choose two courses below:				
ENG 1150 (3)	Study of Literature		ENGL 150 (3)	The Study of Literature
ENG 2262 (3)	Survey of Earlier World Lit.		ENGL 292 (3)	World Literature: Ancient World Through the 16 <sup>th</sup> Century
ENG 2263 (3)	Survey of Later World Lit.		ENGL 293 (3)	World Literature: 17 <sup>th</sup> Century Through the Present
HIST 1101 (3)	Western Civilization I		HIST 101L (3)	Western Civilization to 1648
HIST 1161 (3)	History of the United States I		HIST 161L (3)	History of the U.S. to 1877
HIST 1162 (3)	History of the United States II		HIST 162L (3)	History of the U.S. Since 1877
HIST 1182 (3)	Modern Latin American History		HIST 182 (3)	Modern Latin American History
PHIL 1110 (3)	Intro. to Philosophical Thought		PHIL 101 (3)	Introduction to Philosophy
RLGN 1107 (3)	Living World Religions		RELG 107 (3)	Living World Religions
RLGN 2263 (3)	Eastern Religions		RELG 263 (3)	Eastern Religions
<b>Fine Arts Core</b> Choose one course below:				
ARTH 1101 (3)	Introduction to Art		ARTH 101 (3)	Introduction to Art
ARTH 2201 (3)	History of Art I		ARTH 201 (3)	History of Art I
ARTH 2202 (3)	History of Art II		ARTH 202 (3)	History of Art II
MUS 1139 (3)	Early Music Appreciation		MUS 139 (3)	Music Appreciation
MUS 1140 (3)	Modern Music Appreciation		MUS 1T (3)	Music Appreciation
THEA 1122 (3)	Introduction to Theater		THEA 105 (3)	Theatre Appreciation

<b>Social/Behavioral Sciences Core</b>			
<b>Choose two courses below:</b>			
PSY 1105 (3)	Introduction to Psychology	PSY 105 (3)	General Psychology
ANTH 1101 (3)	Introduction to Anthropology	ANTH 101 (3)	Introduction to Anthropology
ANTH 1110 (3)	Lang., Culture & Human Animal	ANTH 110 (3)	Lang., Culture & Human Animal
ANTH 1130 (3)	Cultures of the World	ANTH 130 (3)	Cultures of the World
ECON 2200 (3)	Macroeconomics	ECON 105 (3)	Introductory Macroeconomics
ECON 2201 (3)	Microeconomics	ECON 106 (3)	Introductory Microeconomics
GEOG 1102 (3)	Human Geography	GEOG 102 (3)	Human Geography
PSCI 1110 (3)	The Political World	POLS 110 (3)	The Political World
PSCI 2200 (3)	U.S. Politics	POLS 200 (3)	American Politics
PSCI 2220 (3)	Comparative Gov. and Politics	POLS 220 (3)	Comparative Politics
PSCI 2240 (3)	International Politics	POLS 240 (3)	International Politics
SOC 1101 (3)	Introduction to Sociology	SOC 101 (3)	Introduction to Sociology
<b>TOTAL CREDITS (65)</b>		<b>TOTAL CREDITS (60)</b>	

<sup>1</sup>CHEM 2710/2792L Organic Chemistry at CNM will satisfy CHEM 301/303L Organic Chemistry requirement, but the course will maintain lower level status and will not fulfill upper level degree requirements.

<sup>2</sup>CHEM 2810/2892L Organic Chemistry at CNM will satisfy CHEM 302/304L Organic Chemistry requirement, but the course will maintain lower level status and will not fulfill upper level degree requirements.

The STEM UP grant is a Title V grant funded for five years in the amount of \$3,473,005 by the Department of Education and authorized under Title III, Part F, Section 371 of the Higher Education Act of 1965 as amended, Hispanic Serving Institutions (HSI) STEM and Articulation Program Cooperative