## BIOCHEMISTRY - BACHELOR OF SCIENCE

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework. All departmental and nondepartmental requirements may not be taken S/U and must earn a C- or better final grade.

Credits

Title

Prefix

FIELIX	Title	Credits
General Education		
Area I: Communication	s	
English Composition - L	Level 1 <sup>1</sup>	4
English Composition - L	Level 2	
ENGL 2210G	Professional and Technical Communication Honors (Recommended)	3
Oral Communication		
COMM 1115G	Introduction to Communication (Recommended)	3
Area II: Mathematics		
MATH 1511G	Calculus and Analytic Geometry I <sup>2</sup>	4
Area III/IV: Laboratory	Sciences and Social/Behavioral Sciences	11
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors <sup>3</sup>	
or CHEM 1216	General Chemistry I Lecture and Laboratory for CHEM Majors	1
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors <sup>3</sup>	
or CHEM 1226	General Chemistry II Lecture and Laboratory for CHEM Majors	M
Area IV: Social/Bel	navioral Sciences Course (3 credits) <sup>1</sup>	
Area V: Humanities <sup>1</sup>		3
Area VI: Creative and F	ine Arts <sup>1</sup>	3
General Education Elec	tive	
MATH 1521G	Calculus and Analytic Geometry II	4
or MATH 1521H	Calculus and Analytic Geometry II Honors	
Viewing A Wider World	d <sup>4</sup>	6
Departmental/College	Requirements	
CHEM 313	Organic Chemistry I	3
CHEM 314	Organic Chemistry II	3
CHEM 315	Organic Chemistry Laboratory	2
CHEM 371	Analytical Chemistry	4
BCHE 140	Introduction to Biochemistry	1
BCHE 395	Biochemistry I	3
BCHE 396 H	Biochemistry II Honors, Lecture and Laboratory	4
BCHE 440	Biochemistry Seminar	1
CHEM 430	Physical Chemistry: Thermodynamics, Kinetics, Quantum Chemistry, and Spectroscopy	3
CHEM 471	Advanced Integrated Inorganic and Physical Chemistry Laboratory	3
CHEM 472	Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory	3
Select two of the follo	wing:	6
BCHE 432	Physical Biochemistry	

BCHE 451	Special Topics	
CHEM 451	Special Topics (by petition only)	
CHEM 456	Inorganic Structure and Bonding	
Non-Departmental Rec	uirements (in addition to Gen.Ed/VWW)	
A ST 311	Statistical Applications	3
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory	4
BIOL 311	General Microbiology	3
BIOL 311 L	General Microbiology Laboratory	2
BIOL 305	Principles of Genetics	3
or GENE 320	Hereditary and Population Genetics	
BIOL 377	Cell Biology	3
Select one from the fol	lowing:	3
PHYS 2110	Mechanics <sup>5</sup>	
PHYS 1230G	Algebra-Based Physics I	
PHYS 2230G	General Physics for Life Science I	
PHYS 1310G	Calculus -Based Physics I	
Select one from the fol	lowing:	3
PHYS 2140	Electricity and Magnetism <sup>6</sup>	
PHYS 1240G	Algebra-Based Physics II	
PHYS 2240G	General Physics for Life Science II	
PHYS 1320G	Calculus -Based Physics II	
Select one from the fol	lowing:	1
PHYS 2110L	Experimental Mechanics <sup>7</sup>	
PHYS 1230L	Algebra-Based Physics I Lab	
PHYS 2230L	Laboratory to General Physics for Life Science I	
PHYS 1310L	Calculus -Based Physics I Lab	
Select one from the fol	lowing:	1
PHYS 2140L	Electricity & Magnetism Laboratory <sup>7</sup>	
PHYS 1240L	Algebra-Based Physics II Lab	
PHYS 2240L	Laboratory to General Physics for Life Science II	
PHYS 1320L	Calculus -Based Physics II Lab	
Second Language Req	uirement: (not required)	
Electives, to bring the	total credits to 120	
Select sufficient election upper division.	ves to bring total credits to 120, including 48	17
Total Credits		120

- See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses
- MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1511G first.
- CHEM 1216 General Chemistry I Lecture and Laboratory for CHEM Majors and CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors are recommended and are acceptable General Education substitutions for CHEM 1215G General Chemistry I Lecture and Laboratory for STEM Majors and CHEM 1225G General Chemistry II Lecture and Laboratory for STEM Majors but will need a degree audit exception that can be coordinated with your advisor.
- See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/ general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses
- <sup>5</sup> PHYS 2110 Mechanics is the recommended Physics I course for B.S. majors. PHYS 1230G Algebra-Based Physics I, PHYS 2230G General

Physics for Life Science I, and PHYS 1310G Calculus -Based Physics I are acceptable and are recommended in the decreasing order listed.

PHYS 2140 Electricity and Magnetism is the recommended Physics II course for B.S. majors. PHYS 1240G Algebra-Based Physics II, PHYS 2240G General Physics for Life Science II, and PHYS 1240G Algebra-Based Physics II are acceptable and are recommended in the decreasing order listed. Students are highly cautioned to check prerequisites for the individual courses when schedule planning.

7 Students are strongly encouraged to verify prerequisite/corequisite requirements for Physics labs when schedule planning.

## **Second Language Requirement**

For the Bachelor of Science with a major in Biochemistry there is no second language requirement for the degree.

## A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1511G Calculus and Analytic Geometry I and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

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Ηı	ret	Year	

ENGL 1110G Composition I 1 4  MATH 1511G Calculus and Analytic Geometry I 1 4  CHEM 1216 General Chemistry I Lecture and Laboratory for CHEM Majors  BCHE 140 Introduction to Biochemistry 1  Area IV: Social and Behavioral Science Course 2 3  Credits 16  Semester 2  MATH 1521G Calculus and Analytic Geometry II 1 4  or Calculus and Analytic Geometry II 1 4  or MATH 1521H or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology: Cellular and Molecular 4  & BIOL 2110L Biology and Principles of Biology: Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3  or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry I 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8  & 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I Lab 1  PHYS 1230G General Physics For Life Science I 8  & PHYS 1230G General Physics For Life Science I 8  & PHYS 2230L and Laboratory to General Physics for Life	Semester 1		Credits
CHEM 1216 General Chemistry I Lecture and Laboratory for CHEM Majors  BCHE 140 Introduction to Biochemistry 1 Area IV: Social and Behavioral Science Course 2 3  Credits 16  Semester 2  MATH 1521G Calculus and Analytic Geometry II 1 4 or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology. Cellular and Molecular 4 8 BIOL 2110L Biology and Principles of Biology: Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8  & 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I Lab 1  PHYS 1230G General Physics for Life Science I	ENGL 1110G	Composition I 1	4
CHEM Majors  BCHE 140 Introduction to Biochemistry 1  Area IV: Social and Behavioral Science Course 2 3  Credits 16  Semester 2  MATH 1521G Calculus and Analytic Geometry II 1 4 or MATH 1521H or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology. Cellular and Molecular 4 & BIOL 2110L Biology and Principles of Biology: Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8 & 2110L and Experimental Mechanics 1 PHYS 1230G Algebra-Based Physics I Lab 1 PHYS 1230G General Physics for Life Science I	MATH 1511G	Calculus and Analytic Geometry I <sup>1</sup>	4
Area IV: Social and Behavioral Science Course 2  Credits  16  Semester 2  MATH 1521G Calculus and Analytic Geometry II 1 4 or MATH 1521H or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology. Cellular and Molecular 4 & BIOL 2110L Biology and Principles of Biology. Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry I 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I Lab 1  PHYS 1230G General Physics for Life Science I	CHEM 1216		4
Credits  Semester 2  MATH 1521G Calculus and Analytic Geometry II 1 4 or MATH 1521H or Calculus and Analytic Geometry II 1 4 Nor MATH 1521H or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology. Cellular and Molecular 4 Nolecular Biology and Principles of Biology. Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 2 2110L and Experimental Mechanics 1 PHYS 1230G Algebra-Based Physics I Lab 1 PHYS 1230G General Physics for Life Science I			1
Semester 2  MATH 1521G Calculus and Analytic Geometry II 1 4 or MATH 1521H or Calculus and Analytic Geometry II 1 1 4 Nor MATH 1521H or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology. Cellular and Molecular 4 Nolecular Biology and Principles of Biology. Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 2 2110L and Experimental Mechanics 1 New York 1230G Algebra-Based Physics I Lab 1 PHYS 1230G General Physics for Life Science I	Area IV: Social and Behavioral Science Course <sup>2</sup>		3
MATH 1521G Calculus and Analytic Geometry II 1 or Calculus and Analytic Geometry II 1 or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology. Cellular and Molecular 8 BIOL 2110L Biology and Principles of Biology. Cellular and Molecular Biology Laboratory 1  CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 33  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I Lab 1  PHYS 1230G General Physics for Life Science I		Credits	16
or MATH 1521H or Calculus and Analytic Geometry II Honors  BIOL 2110G Principles of Biology: Cellular and Molecular 4  & BIOL 2110L Biology	Semester 2		
& BIOL 2110L Biology and Principles of Biology: Cellular and Molecular Biology Laboratory   CHEM 1226 General Chemistry II Lecture and Laboratory for CHEM Majors  Area V: Humanities Course   Credits 15  Second Year  Semester 1  BIOL 305 Principles of Genetics  or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I  3  CHEM 371 Analytical Chemistry  4  Choose from one of the following: 4  PHYS 2110 Mechanics  & 2110L and Experimental Mechanics  BIOL 30G Algebra-Based Physics I  and Algebra-Based Physics I Lab  PHYS 1230C General Physics for Life Science I			4
for CHEM Majors  Area V: Humanities Course 2 3  Credits 15  Second Year  Semester 1  BIOL 305		Biology and Principles of Biology: Cellular and	4
Credits         15           Second Year           Semester 1           BIOL 305         Principles of Genetics 1         3           or GENE 320         or Hereditary and Population Genetics           CHEM 313         Organic Chemistry I 1         3           CHEM 371         Analytical Chemistry         4           Choose from one of the following:         4           PHYS 2110         Mechanics         4           PHYS 1210L         and Experimental Mechanics 1         4           PHYS 1230G         Algebra-Based Physics I         4           PHYS 1230L         and Algebra-Based Physics I Lab 1         4           PHYS 2230G         General Physics for Life Science I         6	CHEM 1226		4
Second Year  Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I 8 PHYS 1230L and Algebra-Based Physics I Lab 1  PHYS 2230G General Physics for Life Science I			
Semester 1  BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics 8 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I 8 PHYS 1230L and Algebra-Based Physics I Lab 1  PHYS 2230G General Physics for Life Science I	Area V: Humanities Co	ourse <sup>2</sup>	3
BIOL 305 Principles of Genetics 1 3 or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics & 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I & PHYS 1230L and Algebra-Based Physics I Lab 1  PHYS 2230G General Physics for Life Science I	Area V: Humanities C		-
or GENE 320 or Hereditary and Population Genetics  CHEM 313 Organic Chemistry I 1 3  CHEM 371 Analytical Chemistry 4  Choose from one of the following: 4  PHYS 2110 Mechanics & 2110L and Experimental Mechanics 1  PHYS 1230G Algebra-Based Physics I & PHYS 1230L and Algebra-Based Physics I Lab 1  PHYS 2230G General Physics for Life Science I			-
CHEM 371 Analytical Chemistry 4 Choose from one of the following: 4  PHYS 2110 Mechanics & 2110L and Experimental Mechanics  PHYS 1230G Algebra-Based Physics I & PHYS 1230L and Algebra-Based Physics I Lab  PHYS 2230G General Physics for Life Science I	Second Year		-
Choose from one of the following:  PHYS 2110 Mechanics & 2110L and Experimental Mechanics  PHYS 1230G Algebra-Based Physics I & PHYS 1230L and Algebra-Based Physics I Lab  PHYS 2230G General Physics for Life Science I	Second Year Semester 1 BIOL 305	Credits  Principles of Genetics <sup>1</sup>	15
PHYS 2110 Mechanics & 2110L and Experimental Mechanics  PHYS 1230G Algebra-Based Physics I PHYS 1230L and Algebra-Based Physics I Lab  PHYS 2230G General Physics for Life Science I	Second Year Semester 1 BIOL 305 or GENE 320	Principles of Genetics <sup>1</sup> or Hereditary and Population Genetics	<b>15</b>
& 2110L and Experimental Mechanics <sup>1</sup> PHYS 1230G Algebra-Based Physics I  & PHYS 1230L and Algebra-Based Physics I Lab <sup>1</sup> PHYS 2230G General Physics for Life Science I	Second Year Semester 1 BIOL 305 or GENE 320 CHEM 313	Principles of Genetics <sup>1</sup> or Hereditary and Population Genetics Organic Chemistry I <sup>1</sup>	<b>15</b>
& PHYS 1230L and Algebra-Based Physics I Lab <sup>1</sup> PHYS 2230G General Physics for Life Science I	Second Year Semester 1 BIOL 305 or GENE 320 CHEM 313 CHEM 371	Principles of Genetics <sup>1</sup> or Hereditary and Population Genetics Organic Chemistry I <sup>1</sup> Analytical Chemistry	3 3 4
	Second Year Semester 1 BIOL 305 or GENE 320 CHEM 313 CHEM 371 Choose from one of ti PHYS 2110	Principles of Genetics <sup>1</sup> or Hereditary and Population Genetics Organic Chemistry I <sup>1</sup> Analytical Chemistry the following: Mechanics	3 3 4
Science I 1	Second Year Semester 1 BIOL 305 or GENE 320 CHEM 313 CHEM 371 Choose from one of to PHYS 2110 & 2110L PHYS 1230G	Principles of Genetics <sup>1</sup> or Hereditary and Population Genetics Organic Chemistry I <sup>1</sup> Analytical Chemistry he following: Mechanics and Experimental Mechanics <sup>1</sup> Algebra-Based Physics I	3 3 4

PHYS 1310G	Calculus -Based Physics I	
& PHYS 1310L	and Calculus -Based Physics I Lab 1	
Area VI: Creative and F		3
	Credits	17
Semester 2	Internal continue to Communication	2
COMM 1115G	Introduction to Communication Professional and Technical Communication	3
ENGL 2210G	Honors	3
CHEM 314 & CHEM 315	Organic Chemistry II and Organic Chemistry Laboratory <sup>1</sup>	5
Choose from one of th	e following:	4
PHYS 2140 & 2140L	Electricity and Magnetism and Electricity & Magnetism Laboratory <sup>1</sup>	
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab <sup>1</sup>	
PHYS 2240G	General Physics for Life Science II	
& PHYS 2240L	and Laboratory to General Physics for Life Science II <sup>1</sup>	
PHYS 1320G	Calculus -Based Physics II	
& PHYS 1320L	and Calculus -Based Physics II Lab <sup>1</sup>	
	Credits	15
Third Year		
Semester 1		
A ST 311	Statistical Applications 1	3
BIOL 377	Cell Biology <sup>1</sup>	3
BCHE 395	Biochemistry I <sup>1</sup>	3
CHEM 430	Physical Chemistry. Thermodynamics, Kinetics, Quantum Chemistry, and Spectroscopy	3
Elective Course		3
Semester 2	Credits	15
Semester 2 BCHE 396 H	Credits  Biochemistry II Honors, Lecture and Laboratory	15 0-4
BCHE 396 H BIOL 311 & 311 L	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory	0-4
BCHE 396 H BIOL 311	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory	0-4
BCHE 396 H BIOL 311 & 311 L	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory	0-4 5
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory	0-4 5 3 3
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory	0-4 5 3
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course <sup>3</sup>	0-4 5 3 3
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory <sup>1</sup> World Course <sup>3</sup> Credits	0-4 5 3 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  1	0-4 5 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory <sup>1</sup> World Course <sup>3</sup> Credits	0-4 5 3 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical	0-4 5 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical	0-4 5 3 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical	0-4 5 3 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical	0-4 5 3 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course Elective Course Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical Chemistry Laboratory	0-4 5 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical Chemistry Laboratory	0-4 5 3 3 18-14
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course Elective Course Elective Course	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical Chemistry Laboratory  Credits  Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory wing:	0-4 5 3 3 18-14 1 3 3 2 12
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course Elective Course Elective Course CHEM 472	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar Advanced Integrated Inorganic and Physical Chemistry Laboratory  Credits  Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory	0-4 5 3 3 18-14 1 3 3 2 12
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course Elective Course Semester 2 CHEM 472 Select two of the follow	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar  Advanced Integrated Inorganic and Physical Chemistry Laboratory  Credits  Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory wing:	0-4 5 3 3 18-14 1 3 3 2 12
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course Elective Course Semester 2 CHEM 472 Select two of the follow BCHE 432	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar Advanced Integrated Inorganic and Physical Chemistry Laboratory  Credits  Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory  wing: Physical Biochemistry  4	0-4 5 3 3 18-14 1 3 3 2 12
BCHE 396 H BIOL 311 & 311 L VWW: Viewing a Wider Elective Course Elective Course Fourth Year Semester 1 BCHE 440 CHEM 471 Elective Course Elective Course Elective Course Elective Course Semester 2 CHEM 472 Select two of the follow BCHE 432 BCHE 451	Biochemistry II Honors, Lecture and Laboratory General Microbiology and General Microbiology Laboratory World Course  Credits  Biochemistry Seminar Advanced Integrated Inorganic and Physical Chemistry Laboratory  Credits  Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory  wing: Physical Biochemistry Special Topics	0-4 5 3 3 18-14 1 3 3 2 12

VWW: Viewing a Wider World Course <sup>3</sup>	3
Credits	12
Total Credits	120-116

- These courses may have prerequisites and/or co-requisites, and it is the students responsibility for checking and fulfilling all those requirements.
- See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses.
- <sup>3</sup> See the Viewing a Wider World (https://catalogs.nmsu.edu/ nmsu/general-education-viewing-wider-world/ #viewingawiderworldtext) section of the catalog for a full list of courses.
- The BCHE 432 Physical Biochemistry is highly recommended for all Biochemistry majors.