

INDIVIDUALIZED STUDIES (PRE-PHARMACY) - BACHELOR OF INDIVIDUALIZED STUDIES

The Bachelor of Individualized Studies (BIS) Pre-Pharmacy concentration is a mechanism for students in the NMSU – University of New Mexico (UNM) Pre-Pharmacy Early Assurance Program (EAP) to earn a Bachelor's degree from NMSU that will show up on their NMSU transcript. The NMSU part of the program takes approximately three years (six academic terms) to complete. Students who subsequently successfully complete the first year of study in the UNM PharmD program can readily apply for readmission to NMSU, transfer the PharmD credits back to NMSU, then apply for the BIS degree.

Requirements

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. Up to 36 upper division credits earned through the UNM PharmD program can be transferred back to NMSU and counted towards meeting these requirements. 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.

Prefix	Title	Credits
General Education Requirement		
<i>Area I: Communications</i> ¹		9-10
<i>English Composition - Level 1</i>		
<i>English Composition - Level 2</i>		
ENGL 2221G	Writing in the Humanities and Social Science	
or ENGL 2210G	Professional and Technical Communication	
or ENGL 2210H	Professional and Technical Communication	
or ENGL 2210M	Professional and Technical Communication for Multilingual Students	
<i>Oral Communication</i> ²		
COMM 1115G	Introduction to Communication	
or HNRS 2175G	Introduction to Communication Honors	
<i>Area II: Mathematics</i> ³		3-4
Choose either MATH 1220G and MATH 1221, or MATH 1430G		
MATH 1220G & MATH 1221	College Algebra and General Supplemental Instruction II ⁴	
MATH 1430G	Applications of Calculus I	
<i>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</i>		11-13
<i>Area III: Laboratory Sciences</i>		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors ⁴	
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors ⁴	
<i>Area IV: Social/Behavioral Sciences (3 credits)</i>		
ECON 2110G	Macroeconomic Principles	
or ECON 2120G	Principles of Microeconomics Honors	
<i>Area V: Humanities</i>		3
Choose one of the following		

PHIL 1115G	Introduction to Philosophy (preferred)	
PHIL 1120G	Logic, Reasoning, & Critical Thinking	
PHIL 1145G	Philosophy, Law, and Ethics	
<i>Area VI: Creative and Fine Arts</i> ¹		3
<i>General Education Elective: fulfilled by nondepartmental requirements</i>		3-4
Viewing a Wider World courses from two different colleges ⁵		6
Concentration Requirements (in addition to Gen.Ed/VWW) specific to the concentration		32-34
ARSC 2996	Interdisciplinary Topics (Intro. to Pharmacy) ⁶	
BCHE 140	Explorations in Chemistry and Biochemistry	
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory	
BIOL 305	Principles of Genetics	
BIOL 311	General Microbiology	
or BIOL 2320	Public Health Microbiology	
BIOL 311 L	General Microbiology Laboratory	
BIOL 353	Pre-Professional Human Anatomy	
or SPMD 2210	Anatomy and Physiology I	
BIOL 353 L	Pre-Professional Human Anatomy Laboratory	
BIOL 354	Physiology of Humans	
or SPMD 2225	Anatomy and Physiology II	
CHEM 313	Organic Chemistry I ⁴	
CHEM 314	Organic Chemistry II ⁴	
CHEM 315	Organic Chemistry Laboratory	
MATH 1350G	Introduction to Statistics	
or A ST 311	Statistical Applications	
Second Language: not required		
Selective A: Communication ⁷		3
Selective B: Critical Thinking ⁸		3
Elective ^{9,10}		19-7
BCHE 395	Biochemistry I	
Non-professional support courses to bring the total credits to 120		
Credits transferred from UNM College of Pharmacy ¹⁰		25-36
ARSC 4550	Topics in Pharmacy	
ARSC 4555	Advanced Topics in Pharmacy	
Total Credits		120-126

¹ See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses

² Any course listed under *Oral Communication* the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog may be used

³ MATH 1220G College Algebra or MATH 1430G Applications of Calculus I are required for the degree but students may need to take any prerequisites needed to enter MATH 1220G or MATH 1430G first.

⁴ Supplemental instruction (SI) is strongly recommended but credits may be waived in cases in which the student has prior knowledge of the subject or in cases where SI would lead to a scheduling conflict.

⁵ 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 and

⁶ ARSC 1115 or ARSC 2511 or another approved course may substitute for ARSC 2996 if the latter is not offered in the semester indicated on the degree roadmap

⁷ One course from the following, COMM 3120, COMM 3710, COMM 3530, COMM 3610, COMM 4520, COMM 4640, COMM 4530, COMM 4750, or an approved alternative.

⁸ Choose one from the following:

A ST 465, HORT 310, PHIL 316, PHIL 328, PHIL 351 or one of the PHIL general education courses not already used to fulfill the Area V requirement, SPMD 1120, TOX 361, any upper division BIOL course not listed among the concentration requirements, or an approved upper division alternative.

⁹ In addition to the Selective A and B courses, the UNM/NMSU Early Assurance Program for pre-pharmacy students requires as preparation for the UNM PharmD program a total of 21 credits outside of math and core sciences, designated as non-professional support (NPS) credits. Fourteen of these credits are accounted by ARSC 2996 Interdisciplinary Topics (2 cr), General Education Areas IV and VI (6 cr), and VWW (6 cr), leaving seven elective NPS credits to be selected in consultation with an academic advisor. If BCHE 395 Biochemistry I is not completed then ten remaining NPS credits must be taken, with at least three of those credits in an area of health promotion, such as courses under the NUTR or PHLS prefixes.

¹⁰ Upon successful completion of at least one full year of study in the UNM PharmD program students may transfer back to NMSU up to 36 credits of designated UNM PharmD classwork under the NMSU course numbers ARSC 4550 (up to 18 credits) and ARSC 4555 (up to 18 additional credits). The number of elective credits needed to fulfill the NMSU requirement of 120 total credits will depend on the number of Pharm-D credits transferred back from UNM, the number of credits of supplemental instruction accumulated, and other factors.

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra and ENGL 1110G Composition I. This plan only includes those credits earned while in residence at NMSU, not the credits to be earned subsequently in the UNM PharmD program and transferred back to NMSU. The contents and order of this roadmap may vary depending on initial math and English placement and other factors. While students need to satisfy prerequisites to enroll in math and science courses, there is some flexibility in when other degree requirements are satisfied. Many courses are offered only once per year. Students are strongly encouraged to consider this when planning for the year ahead.

Freshman			
Fall			Credits
MATH 1220G & MATH 1221 or MATH 1430G	College Algebra ¹ or Applications of Calculus I		4
COMM 1115G or HNRS 2175G	Introduction to Communication or Introduction to Communication Honors		3
PHIL 1115G	Introduction to Philosophy (or other Philosophy General Education course)		3
ECON 2110G or ECON 2120G	Macroeconomic Principles or Principles of Microeconomics Honors		3
FYEX 1110	First-year Seminar (or other elective credit if needed) ⁴	1-3	
Credits			14-16
Spring			
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors		5
ENGL 1110G or ENGL 1110H or ENGL 1110M	Composition I or Composition I Honors or Composition I		4

ARSC 2996	Interdisciplinary Topics (Intro to Pharmacy)		2
ARTH 2110G	History of Art I (or other Area VI General Education course) ²		3
PHED 1230	Individual Sport: (or other elective credit if needed) ⁴		1
Credits			15

Sophomore			
Fall			
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory		4
ENGL 2221G or ENGL 2210G	Writing in the Humanities and Social Science or Professional and Technical Communication		3
BCHE 140	Explorations in Chemistry and Biochemistry		1
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors		5
Selective A or B			3
Credits			16

Spring			
BIOL 353 or SPMD 2210	Pre-Professional Human Anatomy or Anatomy and Physiology I		4
BIOL 305	Principles of Genetics		3
CHEM 313	Organic Chemistry I		4
CHME 395V	Brewing Science and Society (or other VWW course outside Arts and Sciences) ³		3
Non-professional elective			3
Credits			17

Junior			
Fall			
CHEM 314	Organic Chemistry II		4
BIOL 354 or SPMD 2225	Physiology of Humans or Anatomy and Physiology II		3
CHEM 315	Organic Chemistry Laboratory		2
ANTH 357V	Medical Anthropology (or other VWW course) ³		3
Selective B or A			3
Credits			15

Spring			
BIOL 311 L	General Microbiology Laboratory		2
BIOL 311 or BIOL 2320	General Microbiology or Public Health Microbiology		3
MATH 1350G or A ST 311	Introduction to Statistics or Statistical Applications		3
BCHE 395	Biochemistry I (or Non-professional elective)		3
Non-professional electives totalling at least 4 credits			4
Credits			15
Total Credits			92-94

¹ MATH 1220G or MATH 1430G is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G first.

² See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses

³ 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

⁴ Elective credits may be added if student needs to enroll in at least 15 credits to be eligible for certain types of financial aid. Suitable

coursework includes FYEX, PHED and other flexible courses that can be taken for one or two credits.

Students interested in other activities related to pre-pharmacy studies should consider joining the NMSU Pre-Pharmacy society. Please see <https://cpp.nmsu.edu/> for contact information.