

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 cooperative program, or the NMSU-UNM 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> ²		
<i>English Composition - Level 2</i>		
ENGL 2221G	Writing in the Humanities and Social Science	
or ENGL 2210G	Professional and Technical Communication Honors	
<i>Oral Communication</i> ²		
COMM 1115G	Introduction to Communication	
<i>Area II: Mathematics</i> ³		3-4
Choose one of the following		
MATH 1430G	Applications of Calculus I ³	
MATH 1511G	Calculus and Analytic Geometry I ³	
<i>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</i>		11
Area III: Laboratory Sciences		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors (Supplemental instruction CHEM 1121 recommended)	
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors (Supplemental instruction CHEM 1122 recommended)	
<i>Area IV: Social/Behavioral Sciences (3 credits)</i>		
ECON 2110G	Macroeconomic Principles	
or ECON 2120G	Principles of Microeconomics	
<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> ²		3
<i>General Education Elective: fulfilled by nondepartmental requirements</i>		3-4
Viewing a Wider World ⁴		6
Concentration Requirements (in addition to Gen.Ed/VWW) specific to the concentration		
ARSC 2996	Interdisciplinary Topics (Intro. to Pharmacy)	2
BCHE 140	Introduction to Biochemistry	1
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory	4
BIOL 305	Principles of Genetics	3
BIOL 311 or BIOL 2320	General Microbiology Public Health Microbiology	3
BIOL 311 L	General Microbiology Laboratory	2
BIOL 353 or SPMD 2210	Pre-Professional Human Anatomy Anatomy and Physiology I	3
BIOL 353 L	Pre-Professional Human Anatomy Laboratory	1
BIOL 354 or SPMD 3210	Physiology of Humans Anatomy and Physiology II	3
CHEM 313	Organic Chemistry I (SI CHEM 303 recommended)	3
CHEM 314	Organic Chemistry II (SI CHEM 304 recommended)	3
CHEM 315	Organic Chemistry Laboratory	2
FYEX 1112	The Freshman Year Experience	3
MATH 1350G or A ST 311	Introduction to Statistics Statistical Applications	3
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab	4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab	4
Second Language: not required		
Selective A: Communication ⁵		3
Selective B: Critical Thinking ⁶		3
Elective ⁷		7
BCHE 395	Biochemistry I	
Non-professional elective		
Credits transferred from UNM College of Pharmacy ⁸		25-36
ARSC 4550	Topics in Pharmacy	
ARSC 4555	Advanced Topics in Pharmacy	

Total Credits 120-134

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 1430G Applications of Calculus I or MATH 1511G Calculus and Analytic Geometry I are required for the degree but students may need to take any prerequisites needed to enter MATH 1430G or MATH 1511G first.

⁴ 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

⁵ 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.

⁶ 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.

⁷ The UNM/NMSU Cooperative Pharmacy Program requires as preparation for the UNM PharmD program a total of 24 credits outside of math and core sciences, designated as non-professional elective (NPE) credits, in addition to the twelve selective credits, six each in the areas of Communication and Critical Thinking. Six of the selective credits are embedded in the General Education Requirements, Areas I and V. Of the 24 NPE credits, 17 are accounted for by FYEX (3cr), ARSC 2996 (2 cr), Area IV and VI GenEd (6 cr), VWW (6 cr). Three of the remaining 7 can be fulfilled through BCHE 395, leaving four elective NPE credits. If BCHE 395 is not completed then 7 remaining NPE credits must be taken, with at least three of those credits preferably addressing health promotion.

⁸ 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)

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 counts 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 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
FYEX 1112	The Freshman Year Experience	3
MATH 1220G	College Algebra ¹	3
COMM 1115G	Introduction to Communication	3
PHIL 1115G	Introduction to Philosophy (or other Philosophy General Education course)	3
ECON 2110G or ECON 2120G	Macroeconomic Principles or Principles of Microeconomics	3
Credits		15

Spring

MATH 1430G	Applications of Calculus I ¹	3
CHEM 1215G & CHEM 1121	General Chemistry I Lecture and Laboratory for STEM Majors and General Supplemental Instruction I	5
ENGL 1110G	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
Credits		17

Sophomore

Fall		Credits
PHYS 1230G	Algebra-Based Physics I	3

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 Honors	3
CHEM 1225G & CHEM 1122	General Chemistry II Lecture and Laboratory for STEM Majors and General Supplemental Instruction II	5
Selective A or B		3

Credits 18

Spring

BIOL 353	Pre-Professional Human Anatomy	4
BIOL 305 or SPMD 2210	Principles of Genetics or Anatomy and Physiology I	3
CHEM 313 & CHEM 303	Organic Chemistry I and Organic Supplemental Instruction 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 & CHEM 304	Organic Chemistry II and Organic Supplemental Instruction II	4
PHYS 1240G	Algebra-Based Physics II	3
BIOL 354 or SPMD 3210	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 A or B		3

Credits 18

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 100

¹ MATH 1430G or MATH 1511G is required for the degree but students may need to take any prerequisites needed to enter MATH 1430G 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

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Students interested in other activities related to pre-pharmacy studies should consider joining the NMSU Pre-Pharmacy society. Please contact Amy Buesing, abuesing@nmsu.edu