

**COLLEGE OF PHARMACY, NURSING & ALLIED SCIENCES**

**MAJOR: PHARMACEUTICAL SCIENCES**

**PROGRAM: PRE-PHARMACY**

**ACADEMIC YEAR: 2013-2014**

**GENERAL EDUCATION REQUIREMENTS – 40 CREDITS**

**Lower Division Requirements – 37 Credits**

**First Year Experience (F) - 1 Credit**

PHRM	189	Skills for Academic Success	1 cr
Students transferring in 24 or more credits do not need to take PHRM 189.			

**Communication (C) - 9 Credits**

ENGL	110	College Composition I	3 cr
ENGL	120*	College Composition II	3 cr
COMM	110*	Fund of Public Speaking	3 cr

**Quantitative Reasoning (R) - 3 Credits**

MATH	146*	Applied Calculus I	4 cr
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**Science & Technology (S) - 10 Credits**

CHEM	121 *	General Chemistry I	3 cr
CHEM	121L	General Chemistry I Lab	1 cr
CHEM	122*	General Chemistry II	3 cr
PHYS	211	College Physics I	3 cr

**Humanities & Fine Arts (A) - 6 Credits**

Select from current general education courses [www.ndsu.edu/registrar/gened/](http://www.ndsu.edu/registrar/gened/)

**Social & Behavioral Sciences (B) - 6 Credits**

COMM	216*	Intercultural Communication	3 cr
ECON	201*	Microeconomics	3 cr

**Wellness (W) - 2 Credits**

Select from current general education courses [www.ndsu.edu/registrar/gened/](http://www.ndsu.edu/registrar/gened/)

**Cultural Diversity (D)**

COMM	216	Intercultural Communication	
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**Global Perspectives (G)**

ECON	201	Microeconomics	
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**Upper Division Requirements - Writing – 3 Credits**

ENGL	324 or 325		3 cr
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**PRE-PHARMACY MAJOR REQUIREMENTS – 55 CREDITS** (total includes credit for MATH 146, CHEM 121/L, CHEM 122, PHYS 211, ECON 201, and COMM 216)

BIOC	460*	Foundations in Biochemistry & Molecular Biology I	3 cr
BIOC	461	Foundations in Biochemistry & Molecular Biology II	3 cr
BIOL	150*	General Biology I	3 cr
BIOL	150L*	General Biology I Lab	1 cr
BIOL	220*	Human Anat. & Physiology I	3 cr
BIOL	220L*	Human Anat. & Physiology I Lab	1 cr
BIOL	221	Human Anat. & Physiology II	3 cr
BIOL	221L	Human Anat. & Physiology II Lab	1 cr
CHEM	122L	General Chemistry I Lab	1 cr
CHEM	341*	Organic Chemistry I	3 cr
CHEM	341L	Organic Chemistry I Lab	1 cr
CHEM	342*	Organic Chemistry II	3 cr
MICR	202*	Introduction to Microbiology	2 cr
MICR	202L*	Introduction to Microbiology Lab	1 cr
MICR	460	Pathogenic Microbiology	3 cr
STAT	330*	Introductory Statistics	3 cr

**\*Courses used in the admission GPA calculation for the Pharm.D. program.**

**Pre-Professional Requirements and Notes:**

- All courses listed for pre-pharmacy must be complete in order to apply for the professional program in the last spring semester in which pre-requisite courses are taken.

**Degree Requirements and Notes:**

- All required courses must be completed with a grade of 'C' or above.
- All students must maintain a semester GPA of 2.0 or above for each semester in the College. A student who fails to meet this standard for two successive or three non-successive semesters may be terminated from enrollment in the College of PNAS.

**NOTE: Student admitted to the Pharm.D. program will earn a Bachelor of Science Degree with a major in Pharmaceutical Science with successful completion of all courses through the second year of the professional Pharm.D. program.**