

## The M.S. in Pharmacogenomics (MSPGx) Pathway to the Pharm.D.

### Description:

The M.S. in Pharmacogenomics (MSPGx) pathway to the Pharm.D. program is intended for foreign and/or domestic graduates who earned a B.S., M.S., M.D., or Ph.D. degree, or foreign graduates who earned a Pharm.D., and desire to advance their careers by earning both an MSPGx and a Pharm.D. degree at an ACPE-accredited institution. Enrollment in the MSPGx does not guarantee enrollment in the Pharm.D. program; however, it provides a different pathway that may save time for the student. All coursework within the MSPGx program that can be, will be transferred to the Pharm.D. program upon successful enrollment into the Pharm.D. program. In addition, upon acceptance to the Pharm.D. program, a review of any completed degrees will be performed to determine if any transfer course credits can be granted.

### Admission Application Requirements:

Applications to the MSPGx program must be submitted via PharmGrad.org or the Western New England University free application.

### Application Requirements:

- **Bachelor's degree:** A bachelor's degree from a regionally accredited college or university.
- **Preferred Prerequisites:** A previous genetics course.
- **Preferred Minimum GPA:** Undergraduate GPA of at least 3.00 or foreign equivalent is preferred.
- **Transcripts:** Transcripts from all colleges attended must be submitted.
- **Recommendations:** A minimum of two letters of recommendation, in English, must be submitted; one recommendation must be from a professor.
- A current résumé or CV must be submitted.
- English-language test scores are required for all applicants who are non-native English speakers who have resided in a country, where English is the primary language, for less than 10 years, UNLESS the applicant has earned or is degree pending (will have earned by anticipated matriculation date) a bachelor's degree or graduate degree following three or more years of campus-based post-secondary instruction in the United States.

- **Applicants can use any of the following standardized tests to meet our English language requirement:**

- TOEFL—80 IBT
- IELTS—6.5
- PTE Academic—56
- STEP Eiken—1
- iTEP—4.5
- Duolingo—105 DET

- List of countries in which English language testing would be waived because it is the primary language: Antigua and Barbuda, Australia, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Ireland, Jamaica, New Zealand, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, and the United Kingdom.

- Qualified candidates may be invited to participate in an interview and complete a writing sample.

### **Subsequent Application to Pharm.D. Program**

- Upon successful completion of the first semester of the MSPGx program with a GPA greater than or equal to 2.7 and no failing grades, any student in the MSPGx program may start the application to the Pharm.D. program through PharmCAS.
- Upon successful completion of the first year of the MSPGx program with a GPA greater than or equal to 2.7 and no failing grades, all pre-pharmacy pre-requisites to the Pharm.D. program will be considered complete. The Pharm.D. Admissions Subcommittee may require additional preparatory work during the summer prior to enrollment in the Pharm.D. program, should there be any specific pre-pharmacy requirement concerns.
- The application process into the Pharm.D. program will be the same as with any student currently enrolled in a program at WNEU.

### **Curriculum Considerations After Acceptance into Pharm.D. Program**

- Course credit transfers from the MSPGx program, or from any prior completed degrees to the Pharm.D. program will be conducted by the CoPHS Office of Academic Affairs.
- Earning the M.S. in Pharmacogenomics is required prior to entering the PY1 year of the Pharm.D. program.

### **Tuition and Fees**

- While enrolled solely in the MSPGx program, the student will pay the same tuition and fees as any MSPGx degree student.
- Upon enrollment in the Pharm.D. program, students will pay tuition and fees equivalent to a CoPHS full-time Pharm.D. student, unless they are not taking the equivalent of a full-time

academic load. If not in a full-time academic load, then the student will pay the same per-credit-hour tuition and fees as any part-time Pharm.D. student.

- While in the Pharm.D. program, students will be eligible for the same scholarships as any other transfer student.

### MSPGx Pathway to the PharmD

#### First Year - Fall Semester (MSPGx-Y1)

PHAR 513	Biochemistry	3
PHRSC 529	Responsible Conduct in Research	3
PHAR 611	Principles of Pharmacology	3
PHRSC 510	Seminar & Journal Club 1	1
PHRSC 527	Data Analysis and Biostatistics	3
PHRSC 551	Introduction to Genetics and Genetic Counseling	3
PHRSC 556	Pharmacokinetic Sciences	2
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		<b>Subtotal: 18</b>

#### First Year - Spring Semester (MSPGx-Y1)

PHAR 522	Pathophysiology	3
PHAR 526	Pharmacy Outcomes	2
PHRSC 526	Analytical Techniques Lab	1
PHAR 523	Medical Genetics and Pharmacogenomics	2
PHRSC 552	Advanced Genetics and Genomics	1
PHRSC 557	Advanced Pharmacology & Drug Action	3
PHRSC 560	Genetic Research and Bioinformatics	3
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		<b>Subtotal: 15</b>

#### First Year - Summer Semester (MSPGx-Y1)

PHRSC 558	Pharmacogenomics Laboratory Experience	2
PHRSC 559	Pharmacogenomics Clinical Experience	2
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		<b>Subtotal: 4</b>

#### Second Year - Fall Semester (MSPGx-done / PharmD PY1)

PHAR 510	Intro to Pharmacy and Health Professions	1
PHAR 511	Drug Information and Informatics	2
PHAR 512	Immunology	3
PHAR 514	Pharmaceutics I	2
PHAR 516	Pharmacy Ethics	3
PHAR 517	Healthcare Policy and Delivery	2
PHAR 518	Pharmaceutical Calculations	2

PHAR 580	Professional Development I	0	<b>Subtotal: 15</b>
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**Second Year - Spring Semester (MSPGx-done / PharmD PY1)**

PHAR 520	Health Care Communications	3	
PHAR 524	Pharmaceutics II	2	
PHAR 525	Pharmaceutics II Lab	1	
PHAR 527	Self Care Therapeutics	3	
PHAR 528	Intro to Pharmacy and Health Professions II	1	
PHAR 541	Introductory Pharmacy Practice Experience I	2	
PHAR 580	Professional Development I	0	<b>Subtotal: 12</b>

**Second Year - Summer Semester (MSPGx-done – PharmD PY2)**

			<b>Subtotal: 0</b>
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**Third Year - Fall Semester (MSPGx-done / PharmD PY2)**

PHAR 610	Principles of Pharmacokinetics	4	
PHAR 612	Principles of Medicinal Chemistry	3	
PHAR 614	Patient Assessment Skills Lab	1	
PHAR 615	Professional Pharmacy Practice Lab	1	
PHAR 616	Practice Management I	2	
PHAR 642	Introductory Pharmacy Practice Experience II	2	
PHAR 65X – use PHRSC 551	Pharmacy Elective – use Introduction to Genetics and Genetic Counseling	0	
PHAR 680	Professional Development II	0	<b>Subtotal: 13</b>

**Third Year - Spring Semester (MSPGx-done / PharmD PY2)**

PHAR 621	IPC&PM Renal	2	
PHAR 622	IPC&PM Respiratory	2	
PHAR 623	IPC&PM CVS I	2	
PHAR 624	IPC&PM CVS II	2	
PHAR 625	Applied Pharmacy Care I	1	
PHAR 626	Practice Management II	2	
PHAR 627	Sterile Products Lab	1	
PHAR 628	Literature Evaluation / Evidence Based Practice	3	

PHAR 65X – use PHRSC 527	Pharmacy Elective - use <b>Data Analysis and Biostatics</b>	0
PHAR 680	Professional Development II	0
		<b>Subtotal: 15</b>

**Third Year - Summer Semester (MSPGx-done / PharmD PY3)**

**Subtotal: 0**

**Fourth Year - Fall Semester (MSPGx-done / PharmD PY3)**

PHAR 710	IPC&PM GI/Nutrition/Hepatic	3
PHAR 711	IPC&PM Endocrine/Repro/GU	3
PHAR 712	IPC&PM Infectious Disease I	2
PHAR 713	IPC&PM Infectious Disease II	2
PHAR 715	Applied Pharmacy Care II	1
PHAR 718	Pharmacy Law I	2
PHAR 744	Introductory Pharmacy Practice Experience III	2
PHAR 75X – use PHRSC 560	Pharmacy Elective – use <b>Genetic Research and Bioinformatics</b>	0
PHAR 780	Professional Development III	0
		<b>Subtotal: 15</b>

**Fourth Year - Spring Semester (MSPGx-done / PharmD PY3)**

PHAR 720	IPC&PM Derm/Musculoskeletal	2
PHAR 721	IPC&PM Neuro/CNS	2
PHAR 722	IPC&PM Psychology	3
PHAR 723	IPC&PM Hematology/Oncology	3
PHAR 724	IPC&PM Special Populations	2
PHAR 725	Applied Pharmacy Care III	1
PHAR 727	Patient Care Management	3
PHAR 728	Pharmacy Law II	2
PHAR 780	Professional Development III	0
		<b>Subtotal: 18</b>

**Fifth Year - Summer Semester (MSPGx-done / PharmD PY4)**

PHAR 800	Ambulatory Care APPE	6
PHAR 801	Acute Care APPE	6
PHAR 880	Professional Development IV	0
		<b>Subtotal: 12</b>

**Fifth Year – Fall Semester (MSPGx-done / PharmD PY4)**

PHAR 802	Community Care APPE	6
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PHAR 803	Institutional Care APPE	6
PHAR 880	Professional Development IV	0

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**Subtotal: 12**

**Fifth Year – Spring Semester (MSPGx-done / PharmD PY4)**

PHAR 804	APPE Elective	6
PHAR 805	APPE Elective	6
PHAR 880	Professional Development IV	0

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**Subtotal: 12**