

**MIDWESTERN UNIVERSITY**  
**COLLEGE OF GRADUATE STUDIES**  
**MASTER OF SCIENCE in PRECISION MEDICINE- Class of 2023**  
**Curriculum 2021-2023**

**First Year** **13 yearly credits**

**Summer quarter 2021** **8 credit hours**

PMMSG 501	Introduction to Genetics and Genomics	2.0
PMMSG 502	Genomics of Rare and Complex Diseases	3.0
PMMSG 503	Introduction to Bioinformatics, Statistics, and Data Interpretation	3.0

**Fall/Winter quarters 2021** **2 credit hours**

Elective	1.0
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**Spring quarter 2022** **3 credit hours**

PMMSG 504	“Omics and Biomarkers	3.0
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**Second Year** **15 yearly credits**

**Summer quarter 2022** **11 credit hours**

PMMSG 601	Molecular Pathology of Cancer: Screening, Prognosis, Diagnosis, and Treatment	3.0
PMMSG 602	Pharmacogenomics	2.0
PMMSG 603	Microbial Genetics, the Microbiome, and Infectious Disease	3.0
PMMSG 604	Ethical, Legal and Social Issues of Precision Medicine	1.0
PMMSG 605	Counseling and Communication Skills for Genomic/Precision Medicine	1.0
	Elective	1.0

**Fall/Winter/Spring quarters 2022-2023** **4 credit hours**

PMMSG 606	Introduction to Personal Genomic Analysis- Genomics Lab Part 1	1.0
PMMSG 607	Capstone Project- Genomics Lab Part 2	2.0
	Elective	1.0

**Credit Totals:**

<b>First year credits</b>	<b>13.0</b>
<b>Second year credits</b>	<b>15.0</b>
<b>Total for Program Completion: 28 + 18 dual credits=</b>	<b>46 credits</b>

**Electives**

PMMSG 801	Application of Precision Medicine to Inflammatory and Autoimmune Diseases	
PMMSG 802	Molecular Pathology of Neurological Diseases: Screening, Prognosis, Diagnosis and Treatment	
PMMSG 803	Application of Precision Medicine to Cardiovascular Diseases	
PMMSG 804	Advanced Topics in Pharmacogenomics	
PMMSG 805	A One Health Approach to Genomics and Precision Medicine	
PMMSG 806	Epigenomics, Gene Regulatory Networks, and Functional Genomics in Health and Disease	
PMMSG 807	Genetic Technologies for the Treatment of Disease	
PMMSG 808	Precision Medicine Journal Club	
PMMSG 809	Understanding and Interpreting Direct to Consumer Testing	