

# Genetics and Genomics (MR)

## Degree Requirements

Code	Title	Hours
<b>Genetics and Genomics Core Courses</b>		<b>14</b>
GN 701	Molecular Genetics	
GN 702	Cellular and Developmental Genetics	
or GN 735	Functional Genomics	
GN 703	Population and Quantitative Genetics	
GN 810	Special Topics in Genetics (Journal Club - taken twice)	
ST 511	Statistical Methods For Researchers I <sup>1</sup>	
<b>Genetics &amp; Genomics Data Analysis Elective <sup>2</sup></b>		<b>3</b>
<b>Research Ethics Elective <sup>3</sup></b>		<b>1-3</b>
<b>Advised Electives <sup>4</sup></b>		<b>12</b>
Total Hours		30
		-
		32

<sup>1</sup> Students can also take a more advanced statistics course, such as ST 512 Statistical Methods For Researchers II

<sup>2</sup> Other courses that do not appear on this list may be counted with the approval of the DGP. This course may not be a statistics or data science class that is not focused heavily on Genetics and/or Genomics data. Examples of potential courses are: BIO 562 Fundamentals of Bioinformatics, BIT 815 Advanced Special Topics (Deep Sequencing Analysis, GGS 771 Data Science for Genetics & Genomics, GN 756 Computational Molecular Evolution, GN 757 Quantitative Genetics Theory and Methods, ST 590 Special Topics (Bioinformatics II), ST 721/GN 721 Genetic Data Analysis

<sup>3</sup> Other courses that do not appear on this list may be counted with the approval of the DGP. Examples of potential courses are: GGS 840 Professional Development & Ethics in Genetics & Genomics, GES 5\*\* Genetic Engineering and Society, PHI 816 Introduction to Research Ethics, TOX 820 Special Problems In Toxicology

<sup>4</sup> Students will work with their advisor to select Advised Electives appropriate for their academic and professional goals. At most 3 credits of research may be used in the Advised Elective category.