

# Genetics and Developmental Biology, M.S.

A candidate for the M.S. degree in Genetics and Developmental Biology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

## Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College. For a more complete statement of requirements, the student is referred to the program's Guidelines for Graduate Students in the Genetics and Developmental Biology Program.

Code	Title	Hours
A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.		
<b>Select one of the following:</b>		<b>3</b>
STAT 511	Statistical Methods 1	
BIOS 601	Applied Biostatistics 1	
<b>Select one of the following:</b>		<b>3</b>
STAT 512	Statistical Methods 2	
BIOS 603	Applied Biostatistics 2	
<b>Select three of the following: *</b>		<b>9</b>
AGBI 512	Nutritional Biochemistry	
AGBI 514 & 514L	Animal Biotechnology and Animal Biotechnology Laboratory	
AGBI 612	General Biochemistry	
BIOL 611	Epigenetics	
BIOL 658	Systems Biology	
GEN 535	Population Genetics	
GEN 726	Advanced Biochemical Genetics	
PLSC 560	Plant Biochemistry	
WMAN 630	Conservation Genetics	
<b>Seminar</b>		<b>3</b>
GEN 796	Graduate Seminar	
<b>Research</b>		<b>6</b>
GEN 797	Research	
<b>Required Coursework</b>		
GEN 521	Basic Concepts of Modern Genetics	3
AGBI 512	Nutritional Biochemistry	3
or AGBI 610	General Biochemistry	
or PLSC 560	Plant Biochemistry	
Plan of Study		
Total Hours		30

\*

Substitution of a course containing some genetics and of special interest to the student may be allowed when approved by the student's committee.

## Major Learning Outcomes

### GENETICS AND DEVELOPMENT BIOLOGY

- Students will acquire fundamental knowledge of genetics and associated fields such as biochemistry, chemistry, and biology.
- Students will acquire detailed knowledge of their particular subdiscipline or research area, including the scientific literature fundamental to their discipline and the ability to stay current on scientific literature.
- Students will acquire technical skills in the laboratory.

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- Students will develop the ability to communicate in writing and orally about scientific concepts and the results of their research.
- Student will develop the ability to design, conduct, and interpret the results of experiments.