

# M.S. in Biology

## M.S. in Biology (courses only)

Code	Title	Credits
<b>Foundational Cluster</b>		
Take at least 3 of these courses <sup>1</sup>		9
BIOL 630	Critical Thinking for the Life Sciences	
MATH 615	Approaches to Quantitative Analysis in the Life Sciences	
BIOL 621	Ecology	
BIOL 622	Evolution	
BIOL 610	Comparative Vertebrate Anatomy	
BIOL 612	Comparative Animal Physiology	
BIOL 640	Cellular Neurophysiology	
BIOL 641	Systems Neuroscience	
R120 524	Cell Molec Dev	
R120 515	Molecular Bio Of Eukaryotes	
<b>Electives</b>		
Take at least 7 courses <sup>2</sup>		21
<b>Total Credits</b>		<b>30</b>

<sup>1</sup>Course selection must be approved by the graduate advisor to prepare for the appropriate area of specialization

<sup>2</sup>Selection can include graduate level courses offered either by the home department (including additional courses from the foundational cluster) or by appropriate departments at NJIT, Rutgers-Newark, or NJMS. All elective courses must be approved by the graduate advisor.

## M.S. in Biology (Master's project)

Code	Title	Credits
<b>Foundational Cluster</b>		
Take at least 3 of these courses <sup>1</sup>		9
BIOL 630	Critical Thinking for the Life Sciences	
MATH 615	Approaches to Quantitative Analysis in the Life Sciences	
BIOL 621	Ecology	
BIOL 622	Evolution	
BIOL 610	Comparative Vertebrate Anatomy	
BIOL 612	Comparative Animal Physiology	
BIOL 640	Cellular Neurophysiology	
BIOL 641	Systems Neuroscience	
R120 524	Cell Molec Dev	
R120 515	Molecular Bio Of Eukaryotes	
<b>Electives</b>		
Take at least 6 courses <sup>2</sup>		18
<b>Project <sup>3</sup></b>		<b>3</b>
BIOL 700B	Master's Project	
<b>Total Credits</b>		<b>30</b>

<sup>1</sup>Course selection must be approved by the graduate advisor to prepare for the appropriate area of specialization.

<sup>2</sup>Selection can include graduate level courses offered either by the home department (including additional courses from the foundational cluster) or by appropriate departments at NJIT, Rutgers-Newark, or NJMS. All elective courses must be approved by the graduate advisor.

<sup>3</sup>Approval of the project advisor is required for registration. Project can be experimental, field, theoretical, or literature-based research of a relevant topic in biology. A written report must be submitted to the project advisor.

**M.S. in Biology (Master's thesis)**

Code	Title	Credits
<b>Foundational Cluster</b>		
Take at least 3 of these courses <sup>1</sup>		9
BIOL 630	Critical Thinking for the Life Sciences	
MATH 615	Approaches to Quantitative Analysis in the Life Sciences	
BIOL 621	Ecology	
BIOL 622	Evolution	
BIOL 610	Comparative Vertebrate Anatomy	
BIOL 612	Comparative Animal Physiology	
BIOL 640	Cellular Neurophysiology	
BIOL 641	Systems Neuroscience	
R120 524	Cell Molec Dev	
R120 515	Molecular Bio Of Eukaryotes	
<b>Electives</b>		
Take at least 5 courses <sup>2</sup>		15
<b>Thesis</b> <sup>3</sup>		6
BIOL 700B	Master's Project	
&		
BIOL 701B	Master's Thesis	
or		
BIOL 701C	Master's Thesis	
<b>Total Credits</b>		<b>30</b>

<sup>1</sup>Course selection must be approved by the graduate advisor to prepare for the appropriate area of specialization.

<sup>2</sup>Selection can include graduate level courses offered either by the home department (including additional courses from the foundational cluster) or by appropriate departments at NJIT, Rutgers-Newark, or NJMS. All elective courses must be approved by the graduate advisor.

<sup>3</sup>Approval of the project advisor is required for registration. Project can be experimental, field, theoretical, or literature-based research of a relevant topic in biology. Upon completion of the written thesis, the student will defend it publicly, followed by a Q&A session with an examination committee. The format and style of the final document must be in accordance with the guidelines set by the Office of Graduate Studies.