

Microbial and Molecular Pathogenesis Track

FALL YEAR 1

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 601*	Principles of Basic Medical Sciences I	5	5
BICH 603*	Fundamentals in Biochemistry I	3	3
MSCI 687*	Professionalism and Ethics	1	1
	Lab Rotation I & II		
	Semester Hours	9	9
	Cumulative Hours	9	9

SPRING YEAR 1

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
***MMPA 601*	Microbial Pathogenesis of Human Disease	3	3
MSCI 610	Pathogenesis of Human Disease	3	3
MSCI 691	Research	3	0
	Lab Rotation III & IV		
	Semester Hours	9	6
	Cumulative Hours	18	15

SUMMER YEAR 1

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
**STAT 651*	Statistics in Research	3	3
MSCI 691	Research	3	0
	Semester Hours	6	0
	Cumulative Hours	24	18

FALL YEAR 2

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
***MMPA 602*	Immunoregulation	3	3
(**SBTM 616	Computational Systems Biology I	2-4	2-4)
	Elective	3	3
MSCI 691	Research	3	0
	Semester Hours	9	6
	Cumulative Hours	33	28

SPRING YEAR 2

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
	Elective	3	3
	Elective	3	3
MSCI 691	Research	3	0
	Semester Hours	9	6
	Cumulative Hours	42	34

SUMMER YEAR 2

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	6	0
	Semester Hours	6	0
	Cumulative Hours	48	34

FALL YEAR 3

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	9	0
	Semester Hours	9	0
	Cumulative Hours	57	34

SPRING YEAR 3

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	9	0
	Semester Hours	9	0
	Cumulative Hours	66	34

SUMMER YEAR 3

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	6	0
	Semester Hours	6	0
	Cumulative Hours	72	34

FALL YEAR 4

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	9	0
	Semester Hours	9	0
	Cumulative Hours	81	34

SPRING YEAR 4

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	9	0

Semester Hours	9	0
Cumulative Hours	90	34

SUMMER YEAR 4

<u>Course #</u>	<u>Course Name</u>	<u>Credit Hours</u>	<u>Graded Hours</u>
MSCI 691	Research	6	0
	Semester Hours	6	0
	Cumulative Hours	96	34

ELECTIVES

<u>Course #</u>	<u>Course Name</u>	<u>Credit/Graded Hours</u>
BIOL 606	Microbial Genetics	3
BIOL 438	Bacterial Physiology	4
BIOL 454	Immunology	3
BIOL 650	Genomics	3
BIOL 651	Bioinformatics	3
VTMI 647	Virology	3
VTMI 649	Immunology	3
BICH 672	Biological Membranes	1
BICH 624	Enzymes, Proteins, and Nucleic Acids	3
BICH 625	Nucleic Acid-Protein Interactions	1
BICH 628	Computational Biology	3
BICH 631	Biochemical Genetics	3
BICH/BIOL 650	Genomics	3
BIOL 601	Biological Clocks	3
BIOL 611	Molecular Biology of Differentiation/Development	3
BIOL 650	Introduction to Genomics	3
BIOL 651	Bioinformatics	3
BIOL 670	The Cell Cycle	1
MCMD 625	Nucleic Acid / Protein Interactions	1
MCMD 671	Macromolecular Folding / Design	3
MSCI 612	Current Topics in Cell Signaling	3
GENE 613	Quantitative Genetics I	3
GENE 614	Maximum Likelihood Estimation of Genetic Parameters	3
MMPA 663	Molecular Biology of Viruses	3
VTTP 638	Analysis of Genomic Signals	3
MMPA 665	Viral Vectors and Gene Therapy	3

* Core requirement

**Either course satisfies requirement

*** Typically offered on alternate years