BS/MS MICROBIOLOGY 5-year Program Course Plan
Entry on ODD-Year

Year 1 (Freshman)

Fall
_____ MI 200 Microbiology
_____ MI 200 L Microbiology Lab
_____ CH 111 General Chemistry I
_____ CH 111 L General Chemistry I Lab
_____ RFT Freshman Reflective Tutorial
_____ Other Course taught in FYP with Microbiology

Spring
_____ MI 216 General Pathology (Micro elective)
_____ MI 216 L General Pathology Lab
_____ CH 112 General Chemistry II
_____ CH 112 L General Chemistry II Lab
_____ MA 119 Finite Mathematics
_____ General Education
_____ General Education

Year 2 (Sophomore)

Fall
_____ MI 221 Biostatistics and Experimental Design
_____ CH 211 Organic Chemistry I
_____ CH 211 L Organic Chemistry I Lab
_____ General education
_____ General education

Spring
_____ MI 314 Clinical Microbiology
_____ MI 314 L Clinical Microbiology Lab
_____ CH 212 Organic Chemistry II
_____ CH 212 L Organic Chemistry II Lab
_____ General Education – suggestion Speech /Organic ILC combination
_____ MI 512 Applied, Food and Industrial Microbiology
_____ MI 512 L Applied, Food and Industrial Microbiology Lab
_____ General education

Year 3 (Junior)

Fall
_____ PY 131 or 141 Physics I
_____ PY 131L or 141 L Physics I Lab
_____ MI 525 Microbial Physiology
_____ MI 525 L Microbial Physiology Lab
_____ General Education
_____ General Education

Spring
_____ PY 132 or 142 Physics II
_____ PY 132 L or 142 L Physics II Lab
_____ MI 503 Epidemiology (suggested elective)
_____ General Education
_____ General Education
_____ General Education
_____ MI 400E Begin Research with faculty for Senior RFT

Year 4 (Senior)

Fall	_____	MI 400	Senior RFT in Microbiology
	_____	MI 213	Cells, Genes, and Evolution
	_____	MI 213 L	Cells, Genes, and Evolution Lab
	_____	MI 521	Immunology and Serology
	_____	MI 521 L	Immunology and Serology Lab
	_____	General Education	
Spring	_____	MI 491	Microbiology Senior Capstone
	_____	MI 522	Microbial Genetics
	_____	MI 522 L	Microbial Genetics Lab
	_____	General Education	
	_____	General Education	
	_____	General Education	
	_____	MI 597	Research

Please note that MI597 is a 2-credit course, registered for in addition to the undergraduate course load, and which counts as the first part of the thesis research component required for the master's degree. This course will culminate with the formation of a graduate thesis committee and the defense of a thesis proposal for the MS degree. Cross-listed with MI 797 (maintained for original MS stand-alone program).

Year 5 (Graduate)

Fall	_____	MI 611	Medical and Public Health Microbiology (4 c)
	_____	MI 611 L	Medical and Public Health Microbiology Lab
	_____	MI 798	Thesis Research II (2 c)
	_____	MI 710	Graduate Seminar I (3 c)
	_____	MI 612	Pathology (3 c)
Spring	_____	MI 799	Thesis Research III (2 c)
	_____	MI 720	Graduate Seminar II (3 c)
	_____	MI 626	Advanced Microbial Physiology (4 c)
	_____	MI 626 L	Advanced Microbial Physiology Lab
	_____	MI 628	Microbiology of Antimicrobial Agents (3 c)
	_____	MI 615	Electron Microscopy (4 c)
	_____	MI 625L	Electron Microscopy Lab

In their 5th year, students will be able to alter this schedule according to offered classes and recommendations from faculty advisors. Students may take any 500- (as long as it was not already counted towards the BS degree) or 600-level course.

Students must obtain at least 18 credits of 600-level or higher course work. This workup shows that there are enough 600-level courses to cover the entire schedule.

A new set of courses (MI 710 and MI 720) dealing with current research literature in the field of microbiology will be offered by qualified department faculty and called, respectively, Graduate Seminar I and II. The MI 597 course will be created and cross-listed with the existing course MI 797, allowing BS/MS students to begin their master's research while finishing their BS.

BS/MS MICROBIOLOGY 5-year Program Course Plan
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Fall
_____ MI 200 Microbiology
_____ MI 200 L Microbiology Lab
_____ CH 111 General Chemistry I
_____ CH 111 L General Chemistry I Lab
_____ RFT Freshman Reflective Tutorial
_____ Other Course taught in FYP with Microbiology

Spring
_____ MI 314 Clinical Microbiology
_____ MI 314 L Clinical Microbiology Lab
_____ CH 112 General Chemistry II
_____ CH 112 L General Chemistry II Lab
_____ MA 119 Finite Mathematics
_____ General Education
_____ General Education

Year 2 (Sophomore)

Fall
_____ MI 221 Biostatistics and Experimental Design
_____ CH 211 Organic Chemistry I
_____ CH 211 L Organic Chemistry I Lab
_____ General education
_____ General education

Spring
_____ MI 503 Epidemiology (suggested elective)
_____ CH 212 Organic Chemistry II
_____ CH 212 L Organic Chemistry II Lab
_____ General Education – suggestion Speech /organic ILC combination
_____ General education
_____ General education

Year 3 (Junior)

Fall
_____ PY 131 or 141 Physics I
_____ PY 131L or 141 L Physics I Lab
_____ MI 213 Cells, Genes, and Evolution
_____ MI 213 L Cells, Genes, and Evolution Lab
_____ MI 521 Immunology and Serology
_____ MI 521 L Immunology and Serology Lab
_____ General Education

Spring
_____ PY 132 or 142 Physics II
_____ PY 132 L or 142 L Physics II Lab
_____ MI 522 Microbial Genetics
_____ MI 522L Microbial Genetics Lab
_____ MI 512 Applied, Food and Industrial Microbiology
_____ MI 512 L Applied, Food and Industrial Microbiology Lab
_____ General Education
_____ General education
_____ MI 400e Begin Research with faculty for Senior RFT

Year 4 (Senior)

Fall	_____	MI 400	Senior RFT in Microbiology
	_____	MI 525	Microbial Physiology
	_____	MI 525 L	Microbial Physiology Lab
	_____	MI 513	Pathogenic Fungi (suggested elective)
	_____	MI 513 L	Pathogenic Fungi Lab (suggested elective)
	_____	General Education	
Spring	_____	MI 491	Microbiology Senior Capstone
	_____	General Education	
	_____	General Education	
	_____	General Education	
	_____	General Education	
	_____	MI 597	Research

Please note that MI597 is a 2-credit course, registered for in addition to the undergraduate course load, and which counts as the first part of the thesis research component required for the master's degree. This course will culminate with the formation of a graduate thesis committee and the defense of a thesis proposal for the MS degree. Cross-listed with MI 797 (maintained for original MS stand-alone program).

Year 5 (Graduate)

Fall	_____	MI 611	Medical and Public Health Microbiology (4 c)
	_____	MI 611 L	Medical and Public Health Microbiology Lab
	_____	MI 798	Thesis Research II (2 c)
	_____	MI 710	Graduate Seminar I (3 c)
	_____	MI 621	Immunobiology and Immunochemistry (3c)
	_____	MI 524	Molecular Genetics (4 c)
	_____	MI 524 L	Molecular Genetics Lab
Spring	_____	MI 799	Thesis Research III (2 c)
	_____	MI 720	Graduate Seminar II (3 c)
	_____	MI 626	Advanced Microbial Physiology (4 c)
	_____	MI 626 L	Advanced Microbial Physiology Lab
	_____	MI 623	Microbial Pathogenesis (3 c)

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